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# REVIEW OF "UNDERSTANDING GLOBAL CRISES"

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The recent financial crisis had pervasive consequences for the world economy. It led to a large contraction in real activity, unemployment, bank failures, and, in some countries, serious issues of fiscal sustainability. Arguably the crisis started with the end of a housing bubble in the United States that in turn led to the collapse of the subprime market. From there, in the span of a few months, it spread to the whole banking sector and then to the real economy. Finally, while the US economy currently seems on the path to a partial recovery, the eurozone slipped into a severe currency crisis due to concerns about fiscal sustainability and future growth.

Two aspects of the macroeconomic models that were used for policy analysis before 2008 became immediately apparent in the aftermath of the recession. First, these models simply lacked the main ingredients that made such a large collapse of real activity possible. Specifically, most of the macroeconomic models used in central banks and other policy institutions were abstracting from the role played by financial intermediaries and asset markets. Second, the models were also of limited use in guiding monetary policy interventions at a time when nominal interest rates quickly approached the zero lower bound.

*Understanding Global Crises* is in this respect as well-written as it is insightful. Assaf Razin points out that for almost two decades many macroeconomists had convinced themselves that macroeconomic models did not necessarily need to feature a fully specified financial sector. Similarly, there was substantial agreement surrounding the idea that a great deal of macroeconomic stabilization could be achieved by the central bank by using a single monetary instrument: the federal funds rate in the case of the US, or a similar short-term policy interest for other countries. As a result, there was little interest in the role that fiscal policy could play in stabilizing the economy, mostly because of a general distrust in the political process that leads to decisions about fiscal interventions.

It is worth emphasizing that both ideas were validated by the US economic performance during the two decades that followed the disinflation of the early '80s. The US economy

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and, to some extent, other developed economies experienced a prolonged period of remarkable economic stability, with sustained growth and low and stable inflation. As a result, there was little evidence that financial intermediaries were playing a significant role. Economists were certainly aware that the financial sector plays a crucial role in amplifying macro shocks through the financial multiplier (Bernanke and Gertler, 1989). However, many believed that it was possible to abstract from explicitly modeling this channel as long as monetary policy interventions were properly transmitted through the financial sector to the economy. In other words, there was an implicit modeling assumption implying that by moving the short-term interest rate the central bank was effectively moving all interest rates across different maturities and risk profiles. Such a belief reflects, in my opinion, a key feature of the financial sector: It is more noticeable and relevant when it fails to work than when it works properly. The recent crisis, and before it the Great Depression, made it painfully clear that this inherent asymmetry in the financial sector should be properly modeled and taken into account. In fact, Razin points out that economies around the world are still at risk of going through severe crises stemming from the financial sector because the system of incentives has not significantly changed and central banks cannot easily cope with standard business cycle stabilization and rising bubbles at the same time.

Razin starts from the crucial premise that crises tend to differ from each other across several dimensions. Their causes are often different. They can be rooted in the desire of governments to simultaneously pursue goals that are in conflict with each other. They can stem from the end of a bubble that leads to drastic revisions in firms' and banks' valuations and deleveraging. They can be caused by a sudden stop of foreign capital that exposes the mismatch of banks' balance sheets. At the same time, exactly because of the different origins of these crises, their consequences and the corresponding policy prescriptions also tend to differ. Policies that might be well suited to handle one crisis might be ineffective in other crises. Nevertheless, crises also present some common features. Razin's book provides an effective and clear analysis of these common features and of how they affected economic thinking.

The book is divided into four parts, each providing a unique and clever perspective. In the first part, Razin provides a detailed historical account of the most recent crises. The second and third parts are dedicated to models of financial crises and currency crises. Finally, the last part addresses the new general equilibrium paradigm that is emerging following the crisis. The book consistently refers to observations of reality and then moves to the blackboard to enhance our understanding of the empirical facts. From this point of view, the book also provides clear guidance on how research should be conducted.

The first part of the book provides an overview of the four most important crises of recent times: The lost decade in Japan, the Asian financial crisis, the global financial crisis that originated in the US in 2008, and the eurozone crisis that was triggered by it. For each of these historical events Razin expertly analyzes the causes that made these crises possible and the policy interventions that followed. This is a remarkable effort for three reasons. First, the sharp analysis provided by Razin illustrates that each of these events had some peculiar aspects that made them different from the others. Second, it endows the reader with a background to understand the theoretical developments that led to new ideas and consequently new models. Finally, Razin highlights how economic thinking, broadly

defined, and economic events are often interconnected. While economic thinking guides actions on the field both during crises and in designing institutions that can potentially lead to crises, economic events trigger revisions in the way economists and policymakers perceive reality. The book unfolds following this pattern. By constantly keeping an eye on the events that shaped economic thinking and modeling choices, Razin presents a crystal clear analysis of many of the seminal contributions in the vast literature on financial intermediaries and currency crises.

Part II of the book is devoted to the analytics of financial crises. Razin begins with an important and key premise: Financial intermediaries are inherently fragile because they collect short-term deposits from households and provide long-term loans. This maturity mismatch between assets and liabilities make them subject to the possibility of bank runs (Diamond and Dybvig, 1983). Furthermore, the fact that intermediaries tend to be connected via bilateral relations increases the chances of a crisis due to contagion. Policy makers can try to protect banks with insurance on deposits or implicit bailouts, but this immediately leads to the problem of moral hazard: Financial intermediaries might take too much risk knowing that in the worst-case scenario they will be rescued by the government. Such a problem becomes even more pervasive when financial institutions become "too big to fail". Economists have therefore spent a significant amount of time and energy in developing institutional designs that can strike a balance between encouraging financial innovation and preventing malpractice.

A well-functioning financial sector is certainly a desirable goal as it allows an efficient allocation of resources. Financial intermediaries generally face two kinds of issues: moral hazard and adverse selection. Because of moral hazard, financial intermediaries might be reluctant to provide resources if they are unable to verify the actual effort of borrowers in their projects. Adverse selection also leads to a reduction of available credit because of the possibility that only those firms that do not have very profitable projects might try to borrow. As a result, enhancing the ability of intermediaries to monitor borrowers leads to an increase in the availability of credit. When this is not possible, firms necessarily need to have some skin in the game in order to have their incentives aligned with intermediaries' goals (Holmstrom and Tirole, 1997).

In a similar way, financial markets provide firms with direct access to financing. Hayek thought that financial markets also played a key role in aggregating information. Instead, Keynes saw financial markets as a beauty contest in which it is more important to predict other people's opinions than to find out the objective truth about an asset. In other words, he thought that higher order beliefs played a more important role than assets' economic fundamentals. This preamble is used by Razin to explore an important topic: The link between bubbles and financial crises. In the data, the burst of a bubble is often followed by a financial crisis. In the moment that asset evaluation is guided more by the possibility of reselling the asset to a third party than by economic fundamentals, bubbles can arise. And while bubbles might be innocuous for a while and can help in relaxing collateral constraints, they end up fueling imbalances that eventually need to be rebalanced. Once this happens, adjustments can lead to liquidity and solvency problems that produce a chain effect with deep consequences for the macroeconomy.

Part III of the book focuses on the problems typically faced by open economies that try to control exchange rates or join currency unions. The central insight is that currency crises often arise because of conflicting goals that policy makers try to pursue at the same time. Razin first reviews the three generations of currency crisis models and how they are connected to economic events. The first generation models were mostly motivated by the empirical observation that fixed exchange rate regimes often collapse following speculative attacks. The central insight of these models was that fixed exchange rate regimes such as Bretton Woods were bound to collapse in the presence of fiscal issues that required the monetization of debt by an independent monetary authority (Krugman, 1979). The Exchange Rate Mechanism crisis led to the second generation models in which policy makers are modeled as optimizing agents subject to the problem of time-inconsistency along the lines of Barro and Gordon (1983). Crises arise because ex-post policy makers have an incentive to use inflation to overcome structural economic deficiencies. The possibility of doing so is crucially linked to the presence of sticky prices and multiple equilibria arise as agents try to guess future policy actions. Multiple equilibria are also at the core of models that focus on the role of speculators. A speculator's beliefs about what other speculators are going to do are very important in guiding his/her actions given that a speculative attack is more likely to succeed if many speculators attack at the same time.[1] Finally, the Asian crisis led to the development of third generation models. Triggered by a flight of foreign capital, the crisis started with a bank run on short-term deposits by foreign investors and it proceeded with an attack on government reserves. Therefore, countries experienced a currency crisis and a banking crisis at the same time—the twin crises. The banking sector suffered severe solvency problems because assets were typically denominated in local currencies, while liabilities were mostly denominated in foreign currency. As a result, third generation models were especially focused on the risks associated with a currency mismatch in the private sector's balance sheet (Krugman, 1999).

Razin concludes this part of the book by reviewing the perils of a single currency union in light of the recent eurozone crisis. An ideal currency union would require intense trade among the members, labor mobility, fiscal coordination, and a monetary authority able to act as a lender of last resort. While the United States satisfies all of the above criteria, the young eurozone falls short in fulfilling the last three requirements. The need for fiscal coordination and the role of lender of last resort for the central bank also appear to be interdependent. The lack of a centralized fiscal authority that can adequately monitor the level of spending of the different countries makes some countries (especially Germany) skeptical about the wisdom of providing an implicit monetary bailout. The fact that European countries seem incapable of resolving the apparent asymmetry between a centralized monetary authority and decentralized fiscal behavior makes the foundations of the eurozone inherently weak.

[1] Recently Morris and Shin (1998) have revisited this class of models using global game theory to show how multiplicity can be eliminated and replaced with unique equilibria depending on the central bank's reserves.

Part IV of the book completes the circle, showing how the elements described in the previous chapters have found their way into general equilibrium macroeconomic models. These changes are part of a recent effort aimed at rethinking the benchmark macroeconomic model used for policy analysis to address its limits as exposed by the recent financial crisis. Razin first provides an elegant and clear review of the pre-2008 workhorse model with a focus on the implications of globalization (Binyamini and Razin, 2008). Key features of such a model are: the use of representative agents, the absence of an explicit role for fiscal policy, the assumption that monetary policy could always be effectively conducted by moving a short-term policy interest rate, and the absence of financial frictions (Woodford, 2003). The crisis shook the foundations of this framework. First, the crisis originated in the US financial sector once the housing bubble came to an end. Prominent financial institutions went bankrupt and the concerns about a complete financial meltdown were widespread. Furthermore, the Federal Reserve had to quickly develop unconventional monetary policy tools to deal with the fact that the standard monetary policy instrument had reached the zero lower bound. In this context, with monetary policy venturing into the unknown, there was renewed interest in the role that fiscal policy could play in mitigating recessions (Keynes, 1936).

Razin provides an accurate and organized exposition of some of the most recent efforts to address these challenges. Eggertsson and Krugman (2012) tackle the problem of deleveraging and the possibility of hitting the zero lower bound using a model with heterogeneous agents. However, they do not explore the causes of the tightening in borrowing constraints that led to the crisis. Therefore, after having reviewed Bernanke and Gertler (1989), a seminal contribution in the literature on financial intermediaries, Razin moves to analyze the works of Gertler and Kiyotaki (2010, 2013), which develop general equilibrium models featuring the issues of financial intermediaries' moral hazard, maturity mismatch, and bank runs.

In conclusion, *Understanding Global Crises* is an impressive work and it is the reflection of Razin's mastery of economics and his deep understanding of the literature. The book gracefully tackles the challenging task of simplifying extremely complex and interconnected financial crises over time, and the evolution of economic models along with them. Razin also presents a model of how research should be conducted, starting with the observation of reality and proceeding with the goal of enhancing our understanding of the real world. It is a triumphant feat and provides a fresh perspective, a must-read both for students that are interested in macroeconomics and for experts that are in need of an organized and clear overview of the literature.

## REFERENCES

Barro, Robert, and David B. Gordon, “Rules, Discretion and Reputation in a Model of Monetary Policy”, *Journal of Monetary Economics*, 12:101–121, 1983.

Bernanke, B. S., and M. Gertler, “Agency Costs, Net Worth, and Business Fluctuations”, *American Economic Review*, 79:14–31, 1989.

Binyamini, Alon, and Assaf Razin, “Inflation-output Tradeoff as Equilibrium Outcome of Globalization”, *Israel Economic Review*, 6(1):109–134, 2008.

Diamond, Douglas W., and Philip H. Dybvig, “Bank Runs, Deposit Insurance, and Liquidity”, *Journal of Political Economy*, 91(3):401419, June 1983.

Eggertsson, Gauti B., and Paul Krugman, “Debt, Deleveraging, and the Liquidity Trap: A Fisher-Minsky-Koo Approach”, *The Quarterly Journal of Economics*, 127(3):1469–1513, 2012.

Gertler, Mark, and Nobuhiro Kiyotaki, “Financial Intermediation and Credit Policy in Business Cycle Analysis”, in Benjamin M. Friedman and Michael Woodford, eds., Handbook of Monetary Economics, Volume 3, Chapter 11, pages 547–599. Elsevier, January 2010.

Gertler, Mark, and Nobuhiro Kiyotaki, “Banking, Liquidity and Bank Runs in an Infinite-Horizon Economy”, NBER Working Papers 19129, National Bureau of Economic Research, June 2013.

Holmstrom, Bengt, and Jean Tirole, “Financial Intermediation, Loanable Funds, and the Real Sector”, *The Quarterly Journal of Economics*, 112(3):663–691, August 1997.

Keynes, J. M., “The General Theory of Employment, Interest and Money”, Macmillan, London, 1936.

Krugman, Paul, “A Model of Balance-of-Payments Crises”, *Journal of Money, Credit and Banking*, 11(3):311–325, August 1979.

Krugman, Paul, “Balance Sheets, the Transfer Problem, and Financial Crises”, *International Tax and Public Finance*, 6(4):459–472, November 1999.

Morris, Stephen, and Hyun Song Shin, “Unique Equilibrium in a Model of Self-Fulfilling Currency Attacks”, *American Economic Review*, 88(3):587–97, June 1998.

Woodford, Michael, “Interest and Prices: Foundations of a Theory of Monetary Policy”, Princeton University Press, Princeton, New Jersey, 2003.