MANAGING ECONOMIC VOLATILITY AND CRISES

A Practitioner's Guide

Over the past ten years, economic volatility has come into its own after being treated for decades as a secondary phenomenon in the business cycle literature. This evolution has been driven by the recognition that nonlinearities, long buried by the economist's penchant for linearity, magnify the negative effects of volatility on long-run growth and inequality, especially in poor countries. Good times do not offset the negative impact of bad times, which leads to permanent negative effects that are reinforced by incomplete markets, sovereign risk, divisive politics, inefficient taxation, procyclical fiscal policy, and weak financial market institutions. The same phenomena that make volatility difficult to cope with also drive economic crises. This book organizes empirical and policy results for economists and development policy practitioners into four parts: basic features, including the impact of volatility on growth and poverty; commodity price volatility; the financial sector's dual role as an absorber and amplifier of shocks; and the management and prevention of macroeconomic crises. The latter section includes a cross-country study, case studies on Argentina and Russia, and lessons from the debt default episodes of the 1980s and 1990s.

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To Michal and our daughters, Avi and Anbar

To my mother, Praxedes, and the memory of my father, Hugh Pinto

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The views contained in this book are those of the authors and should not be attributed to any particular institution, including those the authors may be associated with, such as the World Bank, the International Monetary Fund, and the NBER.

Joshua Aizenman
Brian Pinto

Foreword

The last half century has seen an unprecedented number of financial crises and periods of great price and output volatility. Slightly removed in time from the events, researchers are now carefully documenting the events and learning from them. This volume is a landmark in that research process. Joshua Aizenman and Brian Pinto have put together a group of cutting-edge researchers and had them stand back and assess what has been learned. Since it is my specialty, I will concentrate my remarks on the crisis part of this volume.

Country particulars and fine technical points aside, two simple lessons seem robust. One lesson is that financial crisis and volatility come in waves. First they hit one country, then the next in close succession. The second lesson is that the next wave of crises is sure to be different from the last. Studying past financial turmoil has an important element in common with studying past wars. Military historians record and analyze battles to discover how they could have been fought better. Potential enemies do the same. The next war, therefore, will surely be different from the last one and it will be different in ways intended to surprise the participants. The great lesson we draw from studying military history is to expect surprises. This lesson turns out to extend to financial crises. Money is made and money is lost in the crises. Those who lost money set up protections, like deposit insurance, so as not to lose in the same way twice. As institutions evolve, those who would make money on crises and other volatility need to look elsewhere for weak points. From this simple dynamic, it follows that the next set of crises will be different from the last.

The precise adversaries are harder to identify in crises than in wars. On one side in a speculative attack on a fixed exchange rate, for example, typically stands a government backing an ill-conceived price-fixing promise. On the other side stand anonymous speculators betting against the government's ability to fulfill the promise. A weak government promise turns speculators against other taxpayers. Walt Kelly on his famous Earth Day poster depicting Pogo overlooking woods filled with trash said: "We have met the enemy and he is us." So it is with financial crises. Poor institutional design creates financial adversaries from those who might have been cooperating to build a stronger economy. Resources are redistributed during the crises, but society as a whole seems frequently to come out of the crises with fewer resources and slower growth than it had on entry. On the plus side, crises do tend to stimulate fiscal and institutional reform.

While crises have existed throughout financial history, for many years we really did not study them much – perhaps because they were looked on as irrational anomalies beyond the bounds of our maximizing-agent-based modeling. This changed when Stephen Salant and Dale Henderson (SH, 1978) presented a rational-agent model of a speculative attack on a government's gold-price fixing scheme. Following on the heels of this seminal work, Paul Krugman (1979) ingeniously applied the SH methods to study an attack on a government currency-price fixing scheme. Once Krugman's paper was published, the floodgates opened; economists used the SH methods in widespread new theory work and fit the models in empirical applications. The SH methods worked well on the 1970s' speculative attacks. These attacks were one-way bets against price fixing schemes that were destined to fail eventually because of other, more powerful, forces inconsistent with the fixed price. These methods were applied with success to speculative attacks in Mexico (1976, 1982), Brazil (1983), and Israel (1974), among others.

Following the theme of successive crisis waves being different, the attacks on fixed parities leading to monetary union in the EMU (The European Monetary System [EMS] came under speculative attack between 1992 and 1993) had little in common with those in Mexico and Brazil except for the profits made by speculators at the expense of other taxpayers. The countries that came under attack (all EMS countries but Germany and the Netherlands) had sound fiscal and monetary policies completely consistent with the adopted parities. It seemed that the speculative attacks were the result of a mind game between speculators, like George Soros, and the countries' monetary authorities concerning the appropriate parity at which to enter the union. This type of speculative gaming was modeled by Maurice Obstfeld (1996) and became known as the second generation of speculative attacks. (Flood and Marion (1999) provide a survey of the first two crisis generations.)

The middle and late 1990s brought crises in East Asia and Latin America. As usual, the new crises looked different from those in the past. The crises still involved governments and speculators, to be sure, but now the solvency of private firms was thrown into the mix. Often, as it turned out, the crisis countries' private firms had borrowed heavily from abroad with their debts denominated in foreign currency. This set up a nightmarish balance-sheet constraint on governments' reactions to adverse shocks. On the one hand, if governments met the shocks with interest rate reductions or monetary expansions, the value of the countries' currencies would decline, exacerbating the private sector's debt burden. Fiscal expansion, on the other hand, would increase domestic-currency interest rates, thereby increasing the domestic-currency debt service burden on already-strapped firms. It was a new crisis type, sometimes called the third-generation crisis. In these crises, the private sector was tied into currency and government solvency crises as never before. After the crises, the attacked countries realized that large crisis war chests in the form of liquid international reserves might have forestalled their problems. As witness to evolving structure following crises, one need only study the gigantic post-crisis reserve buildup in many East Asian countries.

The above is a much-abbreviated version of the modern-crisis history part of the task Joshua Aizenman and Brian Pinto and the authors they invited to participate have taken on in this volume. Their job is accomplished in three steps. First they set out for the reader the problems from which lessons will be drawn. Second they

give the reader the intellectual tools with which to study the data. The third and final step is the most rewarding. It is to use the relevant analytical tools to study the crisis case histories in Argentina and Russia. These case histories are the real payoff in this volume. They correspond to the military historian's recounting and dissecting battles.

This volume is like a military history but applied to crises and other volatility; it lays out what happened and why. The authors do not, however, attempt to predict where crises and other volatility will next appear. Instead they remind us to be ready for surprises.

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