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**Causes of Financial Crises Past and Present:
The Role of the *This Time is Different Syndrome***

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Abstract

In this note, we attempt to place the question of how we got to the global financial crisis that began as the US Subprime debacle in the summer of 2007 in the context of an international and historical comparative setting. It is of some poignancy that the “we” here refers to the wealthiest economies in the world which had, as late as 2006, been enjoying the benefits of the so-called “Great Moderation.” The “Great Moderation”, was a term used to describe (and extrapolate from) the drop in macroeconomic volatility in the advanced economies since the late 1980s. As the business cycle had been “tamed”, financial crises of the severity and duration of what we are undergoing in the US and elsewhere in Europe were deemed improbable. At the time, a sovereign default in a eurozone country was inconceivable.

JEL: E6, E44, F3, F30, N20 and N0.

*This note was prepared for *The Occupy Handbook*, Janet Byrne, editor). New York: Little, Brown and Co., 2012).

Introduction

“There is nothing new except what is forgotten.”

Mlle. Rose Bertin

The financial press has often characterized the 2007-2008 United States subprime mess as a new breed of crisis. Indeed, this view often points to the international repercussions of the U.S.-based crisis as evidence that the globalization of financial portfolios has introduced new channels for spillovers that were never present before. In light of the unfolding Greek tragedy, there is also considerable confusion in academic and policy circles as to whether the shaky predicament of the global economy owes to new forms of contagion channels or to shared (common) economic fundamentals.

In this note, we attempt to place the question of “how we got here” in the context of an international and historical comparative setting. It is of some poignancy that the “we” here refers to the wealthiest economies in the world which had, as late as 2006, been enjoying the benefits of the so-called “Great Moderation.” The “Great Moderation”, was a term used to describe (and extrapolate from) the drop in macroeconomic volatility in the advanced economies since the late 1980s. As the business cycle had been “tamed”, financial crises of the severity and duration of what we are undergoing in the US and elsewhere in Europe were deemed improbable. At the time, a sovereign default in a eurozone country was inconceivable.

Our approach does not dwell on (no doubt) important idiosyncratic features of the unfolding crisis in each of the advanced economies. Instead, as to the causes of great crises (the current one will almost certainly figure among the greatest), we next focus on those factors that are common across time and geography; we discriminate between root

causes of the crisis, its symptoms, and features such as financial regulation which serve as amplifiers of the boom-bust cycle. Pertinent to the financial globalization era that has unfolded since the 1980s, our discussion begins with the link between financial liberalization (internal and external), the financial innovation and credit booms these spawn and banking crises. This is a “nutshell” version of the analysis of banking crises in Reinhart and Rogoff (2009)—henceforth RR (2009).

I. The Setting

Across countries and over the centuries, economic crises of all type follow a similar pattern. An innovation emerges. Sometimes it is a new tool of science of industry, such as the diving bell, steam engine, or the radio. Sometime it is a tool of financial engineering, such as the joint-stock company, junk bonds, or collateralized debt obligations. These usually accompany or are a direct result of financial liberalization, as described above. Investors may be wary at first, but then they see that extraordinary returns appear available on these new instruments and they rush in. Financial intermediaries—banks and investment companies—stretch their balance sheets so as not to be left out. The upward surge in asset prices continues, and that generation of financial market participants concludes that rules have been rewritten: Risk has been tamed, and leverage is always rewarded. All too often, policy makers assert that the asset-price boom is a vote of confidence on their regime—that **“this time is different”**.¹ Only seldom, to our knowledge, do they protest that perhaps the world has not changed and that the old rules of valuation still apply.

But the old rules *do* apply. The asset price rise peters out, sometimes from exhaustion on its own or sometimes because of a real shock to the economy. This exposes

¹ The this time is different syndrome is defined in Box 1.

the weaknesses of the balance sheets of those who justified high leverage by the expectation of outsized capital gains. Many financial firms admit losses, and some ultimately fail. All those financial firms hunker down, constricting credit availability in an effort to slim their balance sheets. With wealth lower and credit harder to get, economic activity typically contracts. Only after the losses are flushed out of the financial system and often with the encouragement of lagging monetary and fiscal ease does the economy recover.

Box 1. The “this time is different syndrome”

The essence of the “this time is different syndrome” is simple. It is rooted in the firmly-held belief that financial crises are something that happen to other people in other countries at other times; crises do not happen here and now to us. We are doing things better, we are smarter, we have learned from the past mistakes. The old rules of valuation no longer apply. The current boom, unlike the many booms that preceded catastrophic collapses in the past (even in our country), is built on sound fundamentals, structural reforms, technological innovation, and good policy. Or so the story goes.

For anyone needing an example of the timelessness of the collective self-delusion encapsulated in the this time is different syndrome, please consult Box 2.

FAMOUS WRONG GUESSES IN HISTORY

when all Europe guessed wrong

The date—October 3rd, 1719.
The scene—*Hotel de Nevers*, Paris.
A wild mob—fighting to be heard.

"Fifty shares!" "I'll take two hundred!" "Five hundred!" "A thousand here!" "Ten thousand!"

Shrill cries of women. Hoarse shouts of men. Speculators all—exchanging their gold and jewels or a lifetime's meager savings for magic shares in John Law's Mississippi

Company. Shares that were to make them rich overnight.

Then the bubble burst. Down—down went the shares. Facing utter ruin, the frenzied populace tried to "sell". Panic-stricken mobs stormed the *Banque Royale*. No use! The bank's coffers were empty. John Law had fled. The great Mississippi Company and its promise of wealth had become but a wretched memory.

Today you need not guess.

HISTORY sometimes repeats itself—but not invariably. In 1719 there was practically no way of finding out the *facts* about the Mississippi venture. How different the position of the investor in 1929!

Today, it is inexcusable to buy a "bubble"—inexcusable because unnecessary. For now every investor—whether his capital consists of a few thousands or mounts into the millions—has at his disposal facilities for obtaining the *facts*. Facts which—as far as is humanly possible—eliminate the hazards of speculation and substitute in their place sound principles of investment.



STANDARD STATISTICS

200 VARICK ST.

New York, New York (now the home of Chipotle Mexican Grill)

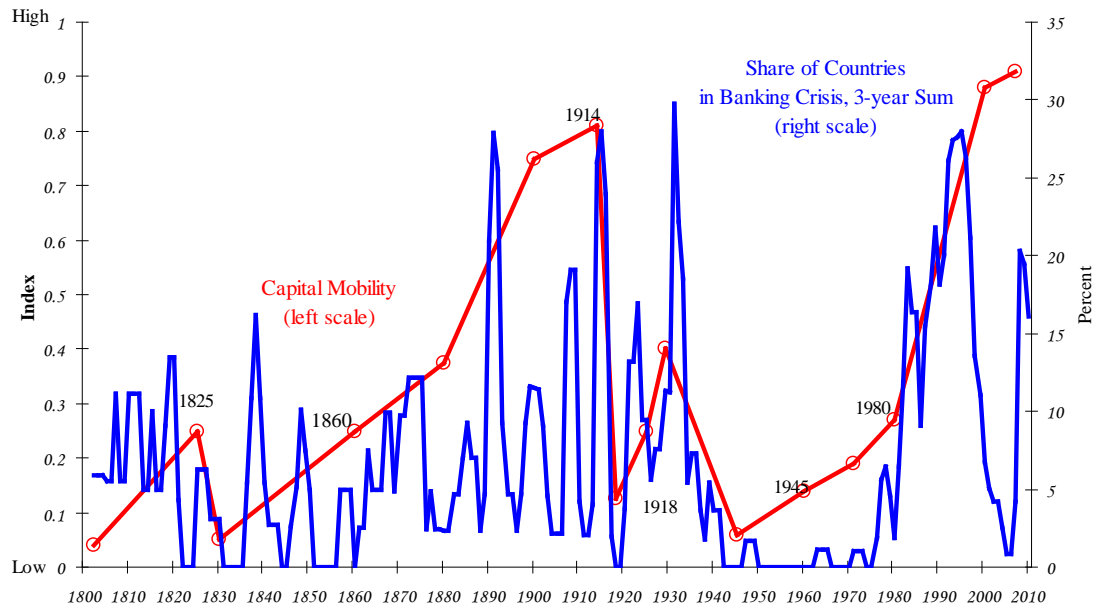
Saturday Evening Post, September 14, 1929

II. The Roots of Financial Crises

There is a striking correlation between freer capital mobility and the incidence of banking crises, as shown in Figure 2. *Periods of high international capital mobility have repeatedly produced international banking crises, not only famously as they did in the 1990s, but historically.* The figure plots a three-year moving average of the share of all countries experiencing banking crises on the right scale. On the left scale, we graph the index of capital mobility, due to Obstfeld and Taylor (2004), updated and back cast using their same design principle, to cover our full sample period. While the Obstfeld–Taylor index may have its limitations, we feel it nevertheless provides a concise summary of complicated forces by emphasizing de facto capital mobility based on actual flows.

For the post-1970 period, Kaminsky and Reinhart (1999) present formal evidence on the links of crises with financial liberalization. In 18 of the 26 banking crises they study, the financial sector had been liberalized within the preceding five years, usually less. In the 1980s and 1990s most liberalization episodes were associated with financial crises of varying severity. Only in a handful of countries (for instance, Canada) did financial sector liberalization proceed smoothly. Specifically, the paper presents evidence that the probability of a banking crisis conditional on financial liberalization having taken place is higher than the unconditional probability of a banking crisis.

Figure 2. Capital Mobility and the Incidence of Banking Crises:
All Countries, 1800-2010



Sources: Updated from Reinhart and Rogoff (2009) and sources cited therein.

Notes: This sample includes **all** countries. On the left scale, we updated our favorite index of capital mobility, admittedly arbitrary, but a concise summary of complicated forces. The smooth red line shows the judgmental index of the extent of capital mobility given by Obstfeld and Taylor (2004), back cast from 1800 to 1859.

III. The Symptoms of Financial Crises

The recurring historical pattern described above is associated with some well-defined symptoms. We focus here on a few of the symptoms or quantitative parallels (those listed in Table 1) that have been present during the current crisis in several countries and that we have seen systematically in numerous earlier crises in advanced and emerging market economies alike.² Specifically, large capital inflows, sharp housing and equity price run-ups lead the “leading indicator” group. So have been surges in private domestic and external debts. These symptoms are quantifiable, unlike the more nebulous amplifiers that are discussed in the remainder of this section.

² These and other economic and financial indicators are analyzed in detail in Kaminsky and Reinhart (1999).

Table 1. Quantitative antecedents of financial crises:
The “lead” of the leading indicators

Large capital inflows
Sharp run-ups in equity prices
Sharp run-ups in housing prices
Inverted V-shaped growth trajectory
Marked rise in indebtedness

If we were to quantify periods of capital flow bonanzas -- periods where *capital inflows* are unusually large -- who comes up on the radar screen prior to the 2007-2009 crisis? As Reinhart and Reinhart (2008) document, in addition to the U.S. and the U.K., the other names that are listed there -- Spain, Italy, Iceland, Ireland -- are all countries that have had a period where the large capital inflows ended badly. Capital inflows facilitate domestic lending, fuel asset prices, and in most instances increase the indebtedness of the private sector, the public sector (if the government behaves procyclically), or both.

Table 2 Capital Inflows Typically Surge Ahead of Financial Crisis

Countries with recent notable capital inflows	2006	2007	2008
Bulgaria	√	√	√
Iceland	√	√	√
Italy	√	√	√
Jamaica	√	√	√
Latvia	√	√	√
New Zealand	√	√	√
Pakistan	√	√	√
Romania	√	√	√
Slovenia	√	√	√
South Africa	√	√	√
Spain	√	√	√
Turkey	√	√	√
United Kingdom	√	√	√
United States	√	√	√

Source: Reinhart and Reinhart (2008).

There is a sense that the U.S. *housing price bubble* during 2000-2006 (primarily) is both unique and unprecedented. The magnitude of the bubble is certainly unprecedented to the United States--at least during the past century for which we have comparable data. However, in a broader global context, the sub-prime bubble is neither unique to the U.S. nor its magnitudes out of line with other real estate bubbles that have also ended equally lamentably in financial crises.

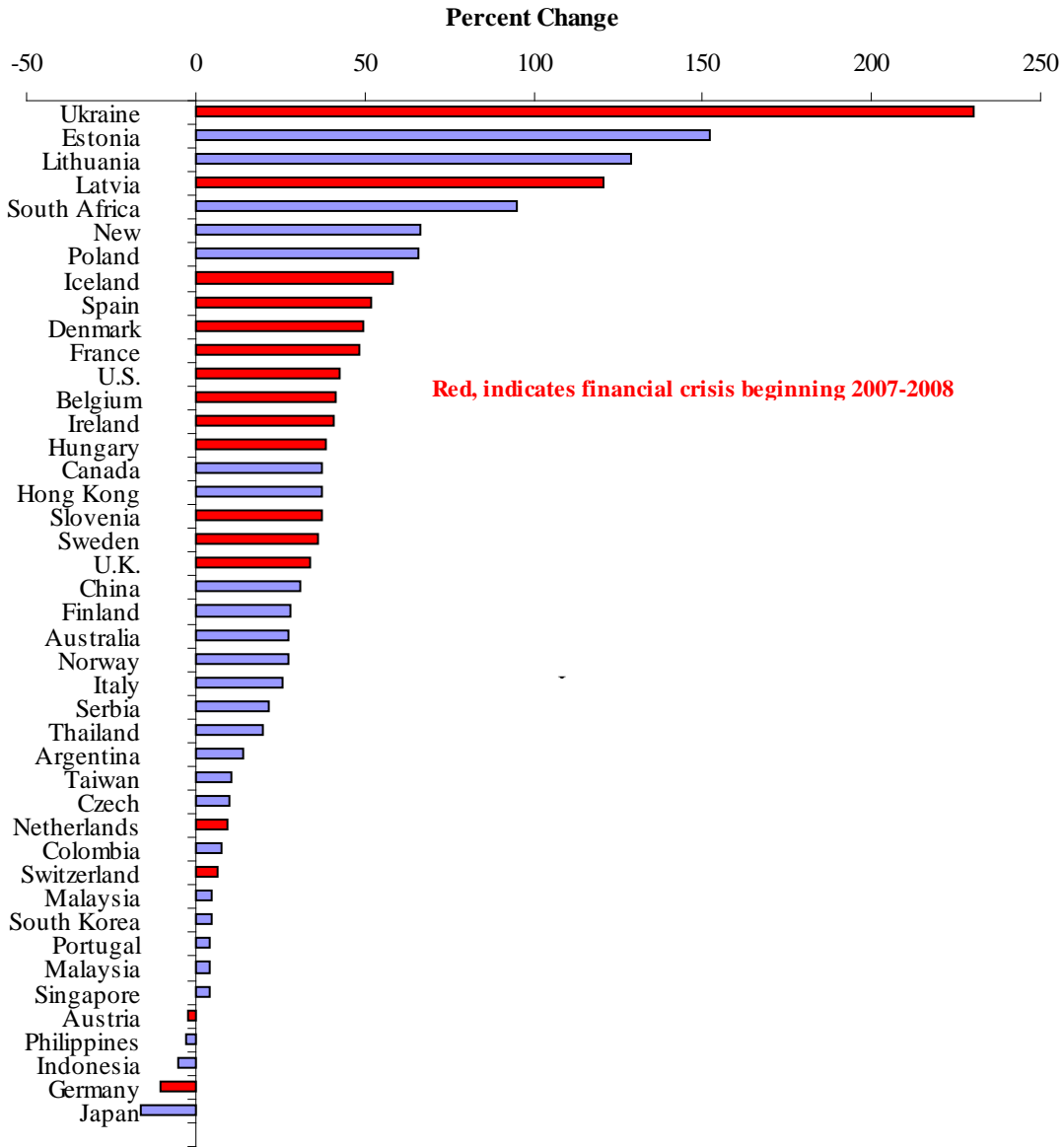
Figure 2 compares the run-up in housing prices. Period T represents the year of the onset of the financial crisis. By that convention, period $T-4$ is four years prior to the crisis, and the graph in each case continues to $T+3$, except of course in the case of the U.S. 2007 crisis, which remains in the hands of the fates. The chart confirms the case study literature, showing the significant run-up in housing prices prior to a financial crisis. Notably, the run-up in housing prices in the United States exceeds that of the “Big Five” crises (Spain, 1977, Norway, 1987, Finland, 1991, Sweden 1991, and Japan 1992).

The boom in real housing prices (or real estate, and other asset prices, more broadly) is fueled by ample domestic credit availability, large capital inflows, and the easy liquidity environment that, and that this facilitates the boom. Coupling the ample liquidity environment with the presumption that *this time is different* and that the old rules of valuation do not apply, then you have the makings or the ingredients for a crisis.

As to **growth** (inverted V-shaped pattern) -- growth does very well ahead of the crisis when credit is ample and wealth effects are positive (as asset prices climb) and falls subsequently. For further evidence the reader is referred to RR (2009).

The importance of the last entry in Table 1, ***a marked rise in indebtedness***, cannot be stressed enough. Rising indebtedness can be domestic, external or both. It can be private, public or both. Any combination of these forms of rising indebtedness has been a hallmark of the pre-crisis period as far back as our data can take us. Perhaps Iceland illustrates this point in its most extreme form, as external debts rise from about 90 percent of GDP in 2000 to well over 900 percent of GDP in 2009. It is worth noting that stating that there are capital inflows is usually a different of observing that a country is borrowing from the rest of the world.

Figure 2. Percent Change in Real Housing Prices (2002-2006) and Banking Crisis



Source: Reinhart and Rogoff (2009).

IV. The “Amplifiers” of Financial Crises

The list (shown on Table 3) of what are have dubbed the “usual suspects” (which ranges from pro-cyclical macroeconomic policies to overvalued currencies and myopic rating agencies) despite its breadth is not meant to be exhaustive. It is a list that has withstood the test of time, as several of these amplifiers come up on a recurring and it is those are not unique to the United States subprime crisis. Countless case studies of banking crises, across countries and time (see references in RR, 2009) list these factors on a recurring basis--often blamed as underlying causes of the crises. However, it is my view that these factors exacerbate both the boom and bust phases of the crisis cycle. For example, the stylized evidence presented in Caprio and Klingebiel (1996) suggests that inadequate regulation and lack of supervision at the time of the liberalization may play a key role in explaining why deregulation and banking crises are so closely entwined. But it is difficult to explain a cycle with a constant. Supervision may have always been lacking and the regulations ill defined. But such deficiencies may have limited consequences when credit conditions are tight (or in the case of emerging markets when access to international capital markets is not possible). If, on the other hand, financial liberalization (domestic an external) create lending possibilities that did not exist before, then inadequate supervision can make a bad lending scenario worse. Outright fraud, (often through connected lending) which crops up as another hardy perennial in studies of the run-up to crises works the same way.

The procyclicality of credit ratings (both at the sovereign and corporate levels, see Reinhart, 2002) also acts to amplify the cycle of lending and subsequent default and

crash. Overvalued currencies are a magnet for capital inflows while procyclical fiscal policies add to the surge in borrowing during the boom phase of the cycle.

Far from being mutually exclusive many, if not most of the items in this list are present simultaneously in the most severe financial crises through out history.

Table 3. Amplifiers of boom-bust cycles: The usual suspects

Procyclical macroeconomic policies
Hidden debts (implicit guarantees)
Overvalued currencies
Poor regulation
Even worse supervision
Outright fraud
Myopic credit rating agencies

IV. A Digression on Where We Are: The Sequencing of Crises

Just as financial crises have common macroeconomic antecedents in asset prices, economic activity, external indicators and so on, *so common patterns appear in the sequencing (temporal order) in which crises unfold*. Obviously not all crises escalate to the extreme outcome of a sovereign default. Yet, advanced economies have not been exempt from their share of currency crashes, bouts of inflation, severe banking crises, and, in an earlier era, even sovereign default. The point of this short digression is to note that the long debt cycle we have discussed does not necessarily end with a banking crisis—more bad news usually follows—a stylized fact that should be kept in mind when trying to make sense of the current conjuncture.

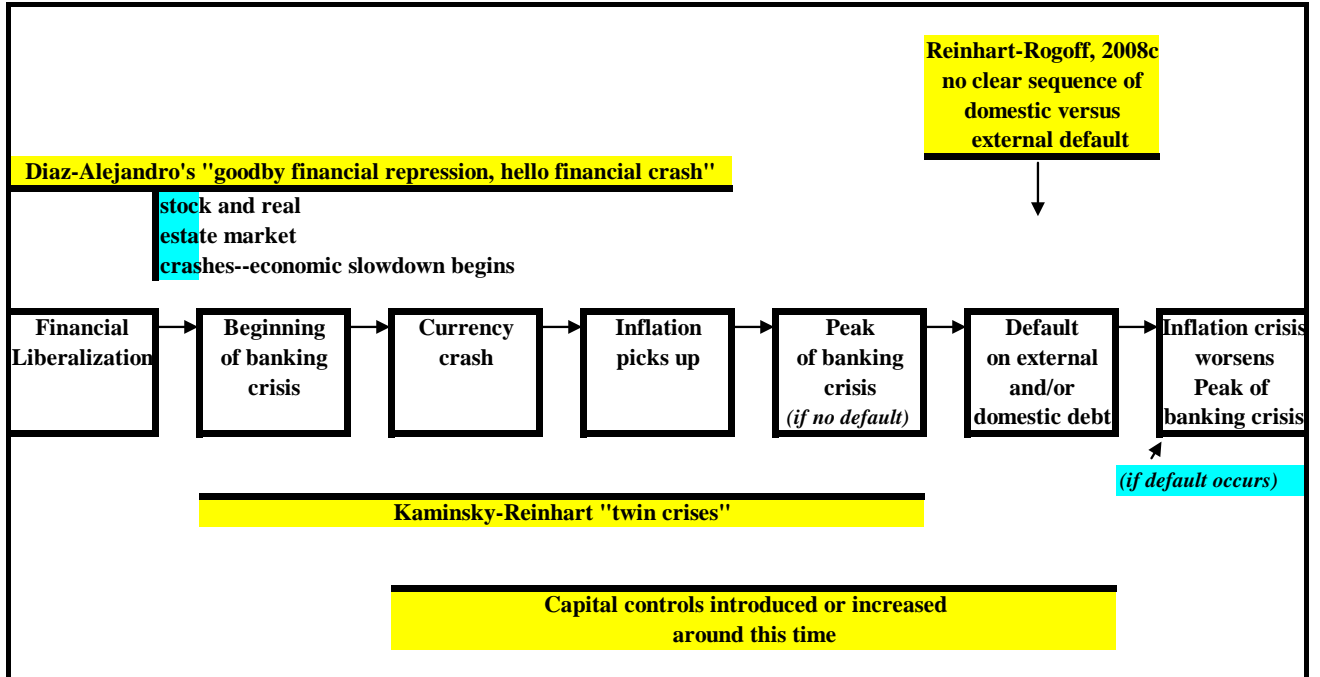
Investigating what came first, banking or currency crises, was a central theme of Kaminsky and Reinhart’s (1999) “twin crises” work; they also concluded that financial liberalization often preceded banking crises; indeed, it helped predict them. Demirgüç-

Kunt and Detragiache (1998), who employed a different approach and a larger sample, arrived at the same conclusion. Reinhart (2002) examined the currency crash–external default link. Our work here has investigated the connections between domestic and external debt crises, inflation crises and default (domestic or external), and banking crises and external default. Figure 3 maps out a “prototypical” sequence of events yielded by this literature.

As Diaz-Alejandro (1985) narrates in his classic paper about the Chilean experience of the late 1970s and early 1980s, “*Goodbye Financial Repression, Hello Financial Crash,*” financial liberalization simultaneously facilitates banks’ access to external credit and more risky lending practices at home. After a while, following a boom in lending and asset prices, weaknesses in bank balance sheets become manifest and problems in the banking sector begin. Often these problems are more advanced in the shakier institutions (such as finance companies) than in the major banks.

The next stage in the crisis unfolds when the central bank begins to provide support for these institutions by extending credit to them. If the exchange rate is heavily managed (it does not need to be explicitly pegged), a policy inconsistency arises between supporting the exchange rate and acting as lender of last resort to troubled institutions. The very numerous experiences in these studies suggest that (more often than not) the exchange rate objective is subjugated to the lender of last resort role of the central bank. Even if central bank lending to the troubled financial industry is limited in scope, the central bank may be more reluctant to engage in an “interest rate defense” policy to defend the currency than would be the case if the financial sector were sound. This brings the sequence illustrated in Figure 7 to the box labeled currency crash.

FIGURE 3 The sequencing of crises: A prototype



Source: Reinhart and Rogoff (2009) and sources cited therein.

The depreciation or devaluation, as the case may be, complicates the situation in (at least) three dimensions: (a) it exacerbates the problem of the banks who have borrowed in a foreign currency, worsening currency mismatches; (b) inflation usually worsens (The extent to which the currency crisis translates into higher inflation is highly uneven across countries, as countries with a history of very high and chronic inflation usually have a much higher and faster pass-through from exchange rates to prices); and (c) if the government has foreign currency–denominated debt, the currency depreciation increases the odds of an external and domestic default.

At this stage, the banking crisis either peaks following the currency crash, if there is no sovereign credit crisis, or keeps getting worse as the crisis mounts and the economy marches toward a sovereign default (the next box in Figure 3).

This is a very common pattern in the sequencing of crises. Notice the first entry there has financial liberalization. And financial liberalization is really not just liberalization proper, but big innovation, creations of new market. In the current conjuncture, the creation or the growth of securitization of mortgages, for example, was a big factor. Notice, perhaps more grimly, that the last entry is a debt crisis. The series of events that began to play out in the summer of 2007 with the onset of the subprime crisis are still unfolding as the crisis morphs. This episode is not yet over.

References

- Caprio, Gerald, Jr. and Klingebiel, Daniela, “Episodes of Systemic and Borderline Financial Crises,” <http://go.worldbank.org/5DYGICS7B0> (Dataset 1), January 2003.
- Caprio, Gerald, Jr. and Klingebiel, Daniela, “Bank Insolvency: Bad Luck, Bad Policy, or Bad Banking?” in Boris Pleskovic and Joseph Stiglitz (eds.), *Annual World Bank Conference on Development Economics*, Washington, DC: The World Bank, 1996, 79–104.
- Demirgüç-Kunt, Asli and Enrica Detragiache, “Financial Liberalization and Financial Fragility,” in Boris Pleskovic and Joseph Stiglitz (eds.) *Annual World Bank Conference on Development Economics 1998*, Washington, DC: World Bank, 1999.
- Diaz-Alejandro, Carlos, “Good-bye Financial Repression, Hello Financial Crash,” *Journal of Development Economics* 19, (1985), 1-24.
- Kaminsky, Graciela L. and Carmen M. Reinhart, “The Twin Crises: The Causes of Banking and Balance of Payments Problems,” *American Economic Review*, Vol. 89 No. 3, June 1999, 473–500.
- Kindleberger, Charles P., *Manias, Panics and Crashes: A History of Financial Crises* (New York: Basic Books, 1989).
- Reinhart, Carmen M., “Default, Currency Crises, and Sovereign Credit Ratings,” *World Bank Economic Review*, Vol. 16 No. 2, 2002, 151–170.
- Reinhart, Carmen M., and Kenneth S. Rogoff. *This Time It’s Different: Eight Centuries of Financial Folly* (Princeton: Princeton University Press, September 2009).