

## Sorry, U.S. Recoveries Really Aren't Different

By Carmen M. Reinhart and Kenneth S. Rogoff - Oct 15, 2012

Five years after the onset of the 2007 subprime financial crisis, U.S. [gross domestic product per capita](#) remains below its initial level. Unemployment, though down from its peak, is still about 8 percent. Rather than the V-shaped recovery that is typical of most postwar recessions, this one has exhibited slow and halting growth.

This disappointing performance shouldn't be surprising. We have presented evidence that [recessions](#) associated with systemic banking crises tend to be deep and protracted and that this pattern is evident across both history and countries. Subsequent academic research using different approaches and samples has found similar results.

Recently, however, a few op-ed writers have argued that, in fact, the U.S. is "different" and that international comparisons aren't relevant because of profound institutional differences from one country to another. Some of these [authors](#), including [Kevin Hassett](#), [Glenn Hubbard](#) and [John Taylor](#) -- who are [advisers](#) to the Republican presidential nominee, [Mitt Romney](#) -- as well as Michael Bordo, who supports the candidate, have stressed that the U.S. is also "different" in that its recoveries from recessions associated with financial crises have been rapid and strong. Their interpretation is at least partly based on a 2012 study by [Bordo](#) and Joseph Haubrich, which examines the issue for the U.S. since 1880.

### Gross Misinterpretations

We have not publicly supported or privately advised either campaign. We well appreciate that during elections, academic economists sometimes become advocates. It is entirely reasonable for a scholar, in that role, to try to argue that a candidate has a better economic program that will benefit the country in the future. But when it comes to assessing U.S. financial history, the license for advocacy becomes more limited, and we have to take issue with gross misinterpretations of the facts.

This is far from the first time we have taken up the history of U.S. financial crises. Our 2009 book, “This Time Is Different: Eight Centuries of Financial Folly,” presented results of 224 historical banking crises from around the world, including pre-2007 banking crises in the U.S. Why is our interpretation of the data so different than those of these recent commentators? Is the U.S. different?

Part of the confusion may be attributed to a [failure to distinguish](#) systemic financial crises from more minor ones and from regular business cycles. A systemic financial crisis affects a large share of a country’s [financial system](#). Such occurrences are quite distinct from events that clearly fall short of a full-blown systemic meltdown, and are referred to in the academic literature as “borderline” crises.

The distinction between a systemic and a borderline event is well established by widely accepted criteria long used by many scholars, and detailed in our 2009 book.

Indeed, in our initial published study on this topic, in 2008, we showed that systemic financial crises across advanced economies had far more serious economic consequences than borderline ones. Our paper, written nine months before the collapse of Lehman Brothers Holdings Inc. in September 2008, showed that by 2007, the U.S. already displayed many of the crucial recurring precursors of a systemic financial crisis: a real estate bubble, high levels of [debt](#), chronically large current-account deficits and signs of slowing economic activity.

Today, there can be little doubt that the U.S. has experienced a systemic crisis -- in fact, its first since the Great Depression. Before that, notable systemic post-Civil War financial crises occurred in 1873, 1893 and 1907.

## **Defining Success**

It is also important to define how a recovery is measured, and how success is defined. The recent op-eds focus on GDP growth immediately after the trough (usually four quarters). For a normal recession, the restoration of positive growth is typically a signal event. In a V-shaped recovery, the old peak level of GDP is quickly reached, and the economy returns to trend within a year or two.

Our book examined both levels and rates of change of per capita GDP; recovery is defined by the time it takes for per capita GDP to return to its pre-crisis peak level. For post-World War II systemic crises, it took about four and a half years to regain lost ground; in

14 Great Depression episodes around the world (including the U.S.) it took 10 years on average. A focus on levels, rather than percentages, is a more robust way to capture the trajectory of an economy where the recovery is more U- or L-shaped than V-shaped.

It also is a way to avoid exaggerating the strength of the recovery when a deep recession is followed by a large cumulative decline in the level GDP. An 8 percent decline followed by an 8 percent increase doesn't bring the economy back to its starting point.

[Taylor](#), for example, appears to show the recovery from the Great Depression as the strongest in U.S. history, even though it took about a decade to reach the same level of per capita income as at its starting point in 1929.

Working with long historical series, we have stressed per- capita measures because U.S. [population growth](#) has fallen from 2 percent a year in the late 1800s to less than 1 percent in more recent times. Put differently, in the early 1900s, a year with 2 percent real GDP growth left the average person's income unchanged; in the modern context, 2 percent annual GDP growth means an increase of slightly more than 1 percent in real income per person. The impact of cumulative population growth even within an individual crisis episode is significant, as the recovery process usually spans four to 10 years.

Even allowing for all the above doesn't seem to entirely account for the differences between our interpretation and the conclusions of the Hasset-Hubbard, Bordo and Taylor op-eds.

## **1907 Panic**

Take the Panic of 1907, which fits the standard criteria of a systemic crisis (and one with a global dimension at that). We certainly would count that one. The narrative in the Bordo- Haubrich paper emphasizes that "the 1907-1908 recession was followed by vigorous recovery." Yet, as we show below, the level of real GDP per capita in the U.S. didn't return to its pre- crisis peak of 1906 until 1912. Is that a vigorous recovery? The unemployment rate (which we routinely include in our comparisons but the Bordo- Haubrich study doesn't consider) was 1.7 percent in 1906, climbed to 8 percent in 1908, and didn't return to the pre-crisis low until 1918.

The aftermath of the systemic banking crisis of 1893 is worse than the period after the 1907 episode, and the Depression of the 1930s is worse still. According to our 2009

metrics, the aftermath of the most recent U.S. financial crisis has been quite typical of systemic financial crises around the globe in the postwar era. If one really wants to focus just on U.S. systemic financial crises, then the recent recovery looks positively brisk.

We examine four systemic financial crises the U.S. has experienced since 1870: 1873 (called the Great Depression until the 1930s), 1893, the Panic of 1907 and the Great Depression.

Given that all of these crises predate the creation of [deposit insurance](#) in 1933, and that three of the four events predate the establishment of a U.S. central bank, one could legitimately quibble with the claim that the relevant institutions are more comparable across centuries in the U.S. than across advanced countries over the past 30 years. We would argue that our 2009 international postwar benchmarks, along with comparisons for the recent crisis, are more relevant.

Nonetheless, the comparison across systemic U.S. financial crises doesn't support the view that:

-- the U.S. recoveries from pre-World War II systemic crises were any swifter than the general cross-country pattern;

-- in the aftermath of the 2007 crisis, the U.S. has performed worse than in previous systemic crises. In fact, so far, it has performed better in terms of output per capita and unemployment. This is true even if one excludes the Great Depression.

Of course, standard errors have to be taken with a grain of salt for such small samples. That is an important reason why our earlier research also incorporates international comparisons, as well as multiple indicators of macroeconomic performance. But if one focuses on U.S. data only, let's at least acknowledge what the evidence shows.

## **The Evidence**

The reader may wish to note that our comparisons relate to the period dating from the onset of the crisis, and don't delineate between the "recession" period and the "recovery" period.

We have explained elsewhere why this distinction is somewhat meaningless in the aftermath of a financial crisis, as false dawns make it very difficult to detect the start of a

lasting recovery in real time. That is why we have consistently argued that the popular term “Great Recession” is something of a misnomer for the current episode, which we have argued would be better thought of as “the Second Great Contraction” (after [Milton Friedman](#) and Anna Schwartz’s characterization of the Great Depression as the Great Contraction).

We anchor the crisis episode at the peak of economic activity, which usually occurs either the year immediately before the crisis or the crisis year itself. For real per capita GDP, we use the Total Economy Database, a multicountry database established by Angus Maddison and now updated by the Conference Board. The most recent annual observation is 2011. The U.S. data are available from 1870 onward. For U.S. [unemployment](#), the data is taken from the Historical Statistics of the [United States](#), where the unemployment-rate series is available from 1890 onward (and is consistent with the Bureau of Labor Statistics for the modern era.)

Figure 1 (attached) compares the still unfolding (2007) financial crisis with U.S. systemic financial crises of 1873, 1893, 1907 and 1929. As the figure illustrates, the initial contraction in per-capita GDP is smaller for the recent crisis than in the earlier ones (even when the Great Depression of the 1930s is excluded). Five years later, the current level of per- capita GDP, relative to baseline, is higher than the corresponding five-crisis average that includes the 1930s. The recovery of per-capita GDP after 2007 is also slightly stronger than the average for the systemic crises of 1873, 1893 and 1907. Although not as famous as the Great Depression, the depression of the 1890s was dismal; in 1896, real per-capita GDP was still 6 percent below its pre-crisis level of 1892.

## **Peak GDP**

So how many years did it take for per-capita GDP to return to its peak at the onset of the crisis? For the 1873 and 1893 (peak is 1892) crises, it was five years; for the Panic of 1907 (peak is 1906), it was six years; for the Depression, it took 11 years. In output per capita timelines, at least, it is difficult to argue that “the U.S. is different.” It can hardly be said to have enjoyed vigorous output per capita recoveries from past systemic financial crises.

The notion that the U.S. exhibits rapid recovery from systemic financial crises doesn’t emerge from the unemployment data, either. That data only begin in 1890, eliminating the 1873 crisis from the pool. The aftermaths of the remaining four crises are shown in Figure 2 (attached).

The 2007 crisis is associated with significantly lower unemployment rates than both the Depression of the 1930s and the depression of the 1890s; it is more in line with the unemployment increases observed after the Panic of 1907. As shown in the inset to Figure 2, the unemployment rate was 1.7 percent in 1906 and almost 6 percent five years later. In the 1893 crisis, the unemployment rate started at 3 percent in 1892, shot up to more than 18 percent, and remained above 14 percent in 1896. In effect, the unemployment rate doesn't dip below 3 percent until 1906 (on the eve of the next crisis).

The pattern during the Great Depression of the 1930s is off the charts ([Barry Eichengreen](#) and Kevin H. O'Rourke's 2010 [study](#) is a must-read on this comparison). These historical U.S. episodes are in line with the 2010 [findings](#) of Carmen and [Vincent Reinhart](#), who examine severe/systemic financial crises in both advanced economies and [emerging markets](#) in the decade after World War II. They document that in 10 of 15 episodes the unemployment rate had not returned to its pre-crisis level in the decade after the crisis. For the 1893 crisis and the 1929 Depression, it was 14 years; for 1907, it took 12 years for the unemployment rate to return to its pre-crisis level.

## Recurring Features

Although no two crises are identical, we have found that there are some recurring features that cut across time and national borders. Common patterns in the nature of the long boom-bust cycles in debt and their relationship to economic activity emerge as a common thread across very diverse institutional settings.

The most recent U.S. crisis appears to fit the more general pattern of a recovery from severe financial crisis that is more protracted than with a normal recession or milder forms of financial distress. There is certainly little evidence to suggest that this time was worse. Indeed, if one compares U.S. output per capita and employment performance with those of other countries that suffered systemic financial crises in 2007-08, the U.S. performance is better than average.

This doesn't mean that policy is irrelevant, of course. On the contrary, at the depth of the recent financial crisis, there was almost certainly a risk of a second Great Depression. However, although it is clear that the challenges in recovering from financial crises are daunting, an early recognition of the likely depth and duration of the problem would certainly have been helpful, particularly in assessing various responses and their attendant risks. Policy choices also matter going forward.

It is not our intention to closely analyze policy responses that may take years of study to sort out. Rather, our aim is to dismiss the misconception that the U.S. is somehow different. The latest financial crisis, yet again, proved it is not.

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