The Aftermath of Global Financial Crises

Carmen M. Reinhart,
University of Maryland, NBER, and CEPR

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This talk is based on several works with Kenneth Rogoff:


- This Time its Different: Eight Hundred Years of Financial Folly (Princeton University Press, 2009)
Where are we at present in a historical global context?
Varieties of crises: World aggregate, 1900-2008

A composite index of banking, currency, sovereign default and, inflation crises, and stock market crashes (weighted by their share of world income)

- WWI-hyperinflation
- Great Depression
- WWII-more defaults
- Global recession and crash
- Panic of 1907
- Oil shock-inflation
- Banking, currency, default, and inflation crises (BCDI index)
- Emerging market crises and Nordic and Japanese banking
The incidence and number of banking crises is quite similar in high and middle-to-low income countries...
On the duration and depth of the post-banking crisis crash for selected indicators. Financial crises are protracted affairs...
Past and Ongoing Real House Price Cycles and Banking Crises:
Peak-to-trough Price Declines (left panel) and Years Duration of Downturn (right panel)
Indices of total building activity in selected countries

*(1929 = 100)*

<table>
<thead>
<tr>
<th>Country</th>
<th>Indicator</th>
<th>1932</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>Buildings completed (value)</td>
<td>100</td>
</tr>
<tr>
<td>Argentina</td>
<td>Permits (area)</td>
<td>42</td>
</tr>
<tr>
<td>Australia</td>
<td>Permits (value)</td>
<td>23</td>
</tr>
<tr>
<td>Belgium</td>
<td>Permits (number)</td>
<td>93</td>
</tr>
<tr>
<td>Canada</td>
<td>Permits (value)</td>
<td>17</td>
</tr>
<tr>
<td>Chile</td>
<td>Permits (area)</td>
<td>56</td>
</tr>
<tr>
<td>Colombia</td>
<td>Buildings completed (area)</td>
<td>84</td>
</tr>
<tr>
<td>Czechoslovakia</td>
<td>Buildings completed (number)</td>
<td>88</td>
</tr>
<tr>
<td>Finland</td>
<td>Buildings completed (cubic space)</td>
<td>38</td>
</tr>
<tr>
<td>France</td>
<td>Permits (number)</td>
<td>81</td>
</tr>
<tr>
<td>Germany</td>
<td>Buildings completed (rooms)</td>
<td>36</td>
</tr>
<tr>
<td>Hungary</td>
<td>Buildings completed (number)</td>
<td>97</td>
</tr>
<tr>
<td></td>
<td>Buildings completed (dwellings)</td>
<td>87</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Buildings completed (value)</td>
<td>22</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Buildings completed (value)</td>
<td>22</td>
</tr>
<tr>
<td>Sweden</td>
<td>Buildings completed (rooms)</td>
<td>119</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Permits (value)</td>
<td>91</td>
</tr>
<tr>
<td>Unites States</td>
<td>Permits (value)</td>
<td>18</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>64</td>
</tr>
<tr>
<td>Memorandum item:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>Permits (number)</td>
<td></td>
</tr>
<tr>
<td>September 2005 peak = 100</td>
<td></td>
<td>23</td>
</tr>
</tbody>
</table>


Notes: Note differences in the definition of the indicator cross-country.

1 Through March 2009.
Past and Ongoing Real Equity Price Cycles and Banking Crises:
Peak-to-trough Price Declines (left panel) and Years Duration of Downturn (right panel)

Ongoing

-55.9 percent

Percent decline

n.a.

Duration in years

3.4 years

Norway, 1899
Argentina, 2001
Hong Kong, 1997
Norway, 1987
Sweden, 1991
UK, 2007
US, 2007
Spain, 2008
Hungary, 2008
Historical Average
Philippines, 1997
Ireland, 2007
Japan, 1992
Finland, 1991
US, 1929
Colombia, 1998
Spain, 1977
Malaysia, 1997
Indonesia, 1997
Korea, 1997
Austria, 2008
Thailand, 1997
Iceland, 2007

-100.0 -90.0 -80.0 -70.0 -60.0 -50.0 -40.0 -30.0 -20.0 -10.0 0.0

Reinhart and Rogoff
Global stock markets during global crises:
Composite real stock price index
(end-of-period)
Past Unemployment Cycles and Banking Crises: Trough-to-peak
Percent Increase in the Unemployment Rate (left panel) and Years Duration of Downturn (right panel)

- Malaysia, 1997
- Indonesia, 1997
- Japan, 1992
- Thailand, 1997
- Philippines, 1997
- Hong Kong, 1997
- Norway, 1987
- Korea, 1997
- Argentina, 2001
- Historical Average
- Sweden, 1991
- Spain, 1977
- Colombia, 1998
- Finland, 1991
- US, 1929

Percent increase: 7 percent
Duration in years: 4.8 years
Past Real Per Capita GDP Cycles and Banking Crises: Peak-to-trough

Percent Decline in Real GDP (left panel) and Years Duration of Downturn (right panel)

Spain, 1977
Japan, 1992
Norway, 1987
Philippines, 1997
Sweden, 1991
Hong Kong, 1997
Colombia, 1998
Korea, 1997
Historical Average
Malaysia, 1997
Finland, 1991
Thailand, 1997
Indonesia, 1997
Argentina, 2001
US, 1929

Percent decrease

Duration in years

-9.3 percent

1.9 years
The duration of major financial crises since the Great Depression: The downturn, peak-to-pre-crisis peak in real per capita GDP in 28 episodes

 Duration in years

**Post-WWII crises**

- Colombia, Argentina: 12
- Thailand: 8
- Indonesia: 6
- Sweden: 4
- Norway, Mexico, Philippines, Malaysia: 4
- Japan, Korea: 2
- Spain: 0

Average: 4.4 years

**Great Depression crises**

- Argentina, Canada, Chile, Mexico: 12
- Austria, France, US: 10
- Indonesia, Poland: 8
- Brazil: 6
- Germany, Romania, Italy: 4
- Japan: 2

Average: 10 years
As to the fiscal aftermath of banking crises, we find:

- That the nearly universal focus on calculations of bailout costs as the centerpiece of the fiscal consequences of banking crises is misguided and incomplete.

- Banking crises weaken fiscal positions beyond the costs of bailouts, as government revenues contract and stimulus plans find favor.
Real Government Revenue and Banking Crises, Advanced Economies, 1815-2007
(annual percent changes)

The "Big Five"

Reinhart and Rogoff
Thus, the true legacy of financial crises is more government debt...

Cumulative increase in public debt in the three years following the banking crisis

Average is 186.3

Index = 100 in year of crisis
Cumulative increase in real public debt in three and six years following the onset of the Great Depression, 1929

Index 1929=100
Institutional Investor sovereign ratings cycles and banking crises:
Peak-to-trough index declines (left panel) and years duration of downturn (right panel)
Banking crises and default cycles on external debt

- This lull in sovereign defaults may also be temporary.
- A high incidence of global banking crises (such as at present) has historically been associated with a high incidence of sovereign defaults on external debt...
Proportion of Countries with Banking and Debt Crises
Weighted by Their Share of World Income

Reinhart and Rogoff
World export growth, 1928-2009
(annual percent change)

Average (1928-2008) = 7.8

2009 estimate

+/- one standard deviation
Policy issues going forward

- **Swift** implementation is critical—delays are terribly costly in both terms of the economy and of the cost of the crisis (*speed should take precedence over polish*)

- **Soaring debt**: Policy makers should be concerned about the debt levels (explicit and implicit) that it is likely to take on as it works its way out of the crisis.

- **Financial crises** are “hardy perennials”-- *regulation* needs to be constantly revised and revisited to “keep up” with market innovation.