Lecture 7: Banking Crises and Their Aftermath

→ Banking crises afflict rich + poor countries alike ("equal opportunity menace")

- incidence remarkably similar in both high-income and middle-to-low income countries
- qualitative + quantitative parallels across disparate income groups

→ three key features of their data

- data on banking crises goes back to 1800
- housing price cycles play a central role in financial crises
  - → real estate price cycles around banking crises similar in duration + amplitude across the two groups of countries
  - → even tho all other macro + financial time series exhibit higher volatility in emerging markets
- data also includes comprehensive historical data on tax revenues + central gov't debt
  - → perspective on fiscal consequences

→ banking crises cause sharp declines in gov't tax revenues

→ other fiscal consequences

- automatic fiscal stabilizers
- counter cyclical fiscal policy
- higher interest payments (due to higher risk premiums + rating downgrades)

→ increase deficits

→ on average real gov't debt rises 86% in the three years after a banking crisis

- includes direct + indirect costs
- increase in debt an order of magnitude larger than bailout costs

→ two types banking crises

#1 • financial repression + domestic default

financial repression as a form of taxation

→ gov't has monopolized savings + payments system

→ few alternatives for domestic savers

→ stuff gov't debt into banks + pay low interest rate

→ sometimes interest rates on savings deposits capped during period of high inflation

- if gov't cannot meet obligations, they default + banks cannot repay depositors

#2 • bank runs

→ when depositors all try to withdraw at once, ~~they~~ banks must sell assets at "fire sale" prices

→ balance sheet deteriorates

→ bank run is self-fulfilling

• when run on a single bank, the bank can borrow from other banks (effectively deposit insurance)

• but if run on wide range of institutions such ~~as~~ an arrangement fails

→ financial crises do not usually trigger an economic recession, instead they amplify it

- decrease in output growth causes borrowers to default on loans
- banks retract lending, which causes more severe contraction of output

→ both historically + ~~[illegible]~~ since 1990s periods of high international capital mobility have repeatedly produced international banking crises

→ "capital flow bonanza"

- capital inflow ≥ several percent of GDP
- P(crisis | bonanza) ≡ probability of banking crisis within 3 years before + after a bonanza year or years
- P(crisis) ≡ unconditional probability of a banking crisis
- P(crisis | bonanza) > P(crisis) in 61% of countries studied

⇒ capital flow bonanzas make a country more crisis prone

→ what I dislike about their treatment of "capital flow bonanzas" is its lack of distinction betw/n short-term flows + long-term flows

- FDI is very different from commercial paper, etc.
- long-term flows should have very different effect
- of course, there may be a correlation between short-term + long-term flows

→ equity + housing price cycles and banking crises

- boom in real housing prices in the run-up to a crisis is followed by sharp decline in year of crisis + subsequent years
- banking crisis occur ~~at~~ at peak of boom or right after the bust
- the magnitudes of the declines in real housing prices around banking crises are not appreciably different in emerging and advanced economies
- by contrast, equity prices exhibit a V-shaped recovery
- ANNOYANCE: It would have been nice to include a plot of home price ~~cyc~~ cycle like they did for equity price cycle (Figure 10.2)

- banking crises may be long, protracted affairs because home price deterioration is long + protracted

→ financial sector's share of GDP also shrinks (BAD NEWS for job seekers from Queens College)

→ fiscal legacy of financial crises

- remarkable surge in debt occurs in the wake of a crisis
- not just "bailout costs"
- large declines in tax revenue due to decrease in economic activity
- in some episodes, the govt has responded w/ fiscal stimulus
- on average central govt debt increases 86% in the three years after the crisis

"Big Five"

Spain	1977
Norway	1987
Finland	1991
Sweden	1991
Japan	1992

The US Subprime Meltdown & the Second Great Contraction

→ Take a look at Figure 13.1

- banking crises occurred fairly frequently prior to WWII
- calm from late 1940s to early 1970s
  - → repression of domestic financial markets
  - → heavy-handed use of capital controls

- since early 1970s, removal of barriers to investment
  - → financial market liberalization
  - → int'l capital account liberalization

→ real estate market bubble

- fueled by massive increase in home prices
- cheap foreign capital due to CA deficits

  (note: CA deficit ⇒ KA surplus when ORT = 0)

(in 2006 US CA deficit was 6.5% of GDP)

- between 1996 + 2006 – cumulative increase of 92 percent in real house prices
  - → even rose 12 percent in 2005

~~→ crisis triggered by sharp rise in defaults on low-income housing mortgages~~

→ what fueled the bubble? large pool of net savings from the rest of the world

- inflows from emerging markets seeking to diversify after crises in Lat Am + Asia in late 1990s + early 2000s
- Middle East sought to invest oil earnings
- China wanted to diversify into safer assets

→ financial innovations enabled Americans to tap the equity in their homes (thus converting an illiquid asset into a source of funds) ⇒ Americans borrow more

- large increase in ratio of household debt to GDP
- record low personal savings rates

	up to 1993	2003	2006
household debt / GDP	80%	120%	130%

→ crisis triggered by sharp rise in defaults on ~~mortg~~ subprime mortgages (i.e. loans made to low-income borrowers)

- many of the loans had low initial "teaser" rates
- rate resets + deteriorating economy made it difficult for many to meet their mortgage obligations

→ Reinhart + Rogoff compare 2nd Great Contraction to other postwar banking crises in 18 developed countries

→ even tho crises in emerging mkts are comparable

→ (chap. 13)

ØA

→ US had larger run-up of real housing prices than in the other 18 and larger than in "Big Five"

→ drop in US real housing prices also more dramatic

→ US also experienced delayed drop in equity prices but when drop occurred, it was more dramatic (than the two comparison groups)

→ in run-up to the crisis, US also had larger CA deficits (than the 18 ~~[illegible]~~ episode comparison group)

→ financial crises usually occur after economic slowdown ~~[illegible]~~ begins + crisis magnifies the recession

- but in run-up, US real GDP per capita held up better than the 18
- but then had more dramatic fall than the 18 + than the "Big Five"

→ in run-up, public debt build-up in US was less than the two comparison groups but quickly exceeded the others

→ oddly, the US dollar appreciated and yields on US treasuries fell as investors viewed US as safer (less risky) than other countries

→ if US were an emerging market economy, the US dollar would have plummeted + interest rates would have soared

The AFTERMATH (chap. 14)

→ Reinhart + Rogoff broaden comparisons to include emerging markets + pre-war crises

→ three main characteristics

1. asset market collapses are deep + prolonged
   - 35 % drop in home prices over six years
   - 56 % drop in equity prices over three + half years
   - US home prices fell 28 % as of late 2008
2. profound declines in output + employment
   - unemployment rate rises 7 percentage points during the "down phase" which usually lasts over four years
   - output per capita falls 9 percent over two years

in US
May 2007 : 4,4
Oct 2009 : 10,1
\+ 5,7

3. (see next page)

US real per capita GDP fell 4,5% between 2007 + 2009

3. government debt tends to explode
- rose an average of 86% in postwar episodes
- bailouts are NOT main cause
- main cause is the collapse of tax revenue
- some countries fiscal problems ~~m~~ exacerbated by
  - → spike in interest rates
  - → countercyclical fiscal policies

→ Interestingly, unemployment rates do not rise as much in emerging markets (with Columbia's 1998 crisis being ~~[illegible]~~ exception)
- there may be greater (downward) wage flexibility in emerging markets

→ 2nd Great Contraction far deeper than the others (in their comparisons)
- global in scope (as opposed to country specific or regional crises)
- but better monetary response this time
- less rigid global exchange rate regime

→ compared w/ Great Depression...

- Great Depression crises lasted ~~[illegible]~~ 10 years on average
- postwar crises lasted 4.4 years on average

→ duration defined as time it took ~~[illegible]~~ for output per capita to reach its pre-crisis peak

- the increases in the unemployment rate were also far larger during the Great Depression

- increase in public debt grew more slowly during Great Depression, on average
  - in 6 years, public debt grew 84% during Great Depression
  - in postwar crises, it only took three years for public debt to grow 86%