Financial Manias, Panics and Crashes Through History

Puspa D. Amri
Associate Professor of Economics
Sonoma State University

Background

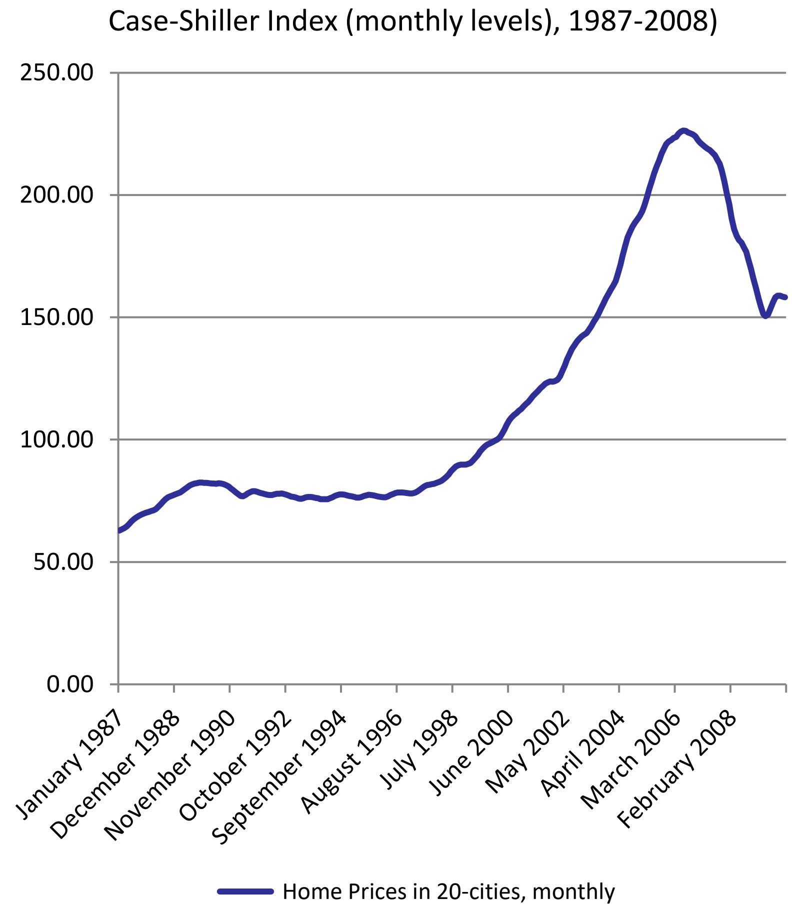
- **"While financial crises do not usually kill people directly, the economic damage can lead to numerous indirect deaths, with monetary costs that are comparable to wars and the largest natural disasters."** (James Gerber 2019)

Background

I've seen firsthand the economic devastation a bubble can cause.

Background: The United States 2007

- A bubble in the housing market led to the 2008 Great Recession.
- Home prices fell in 2006→
- Top investment banks failed.
- Construction sector collapsed.
- Stock market fell by 46% (S&P 500, Aug ‘07 to Mar ‘09).
- Unemployment rate shot up to 10%.
- A lifetime loss of $70,000 for every US man, woman and child (Federal Reserve Bank of SF).

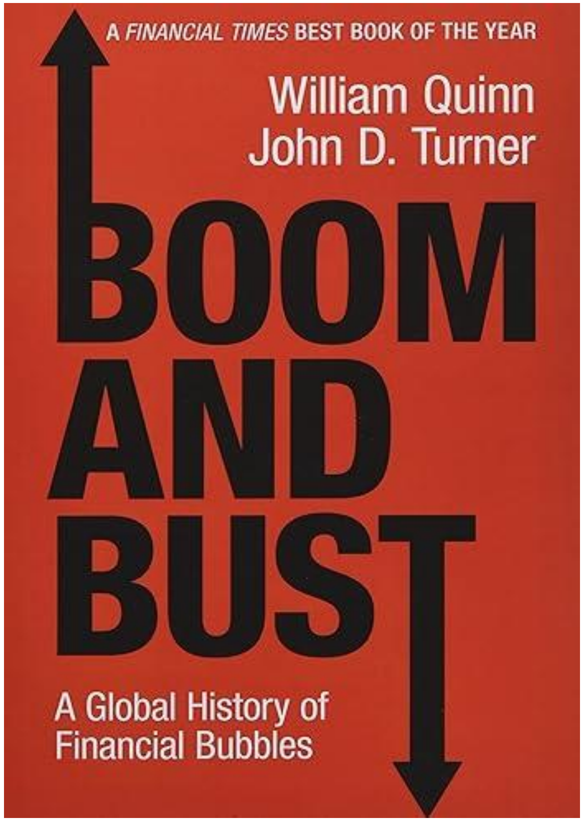


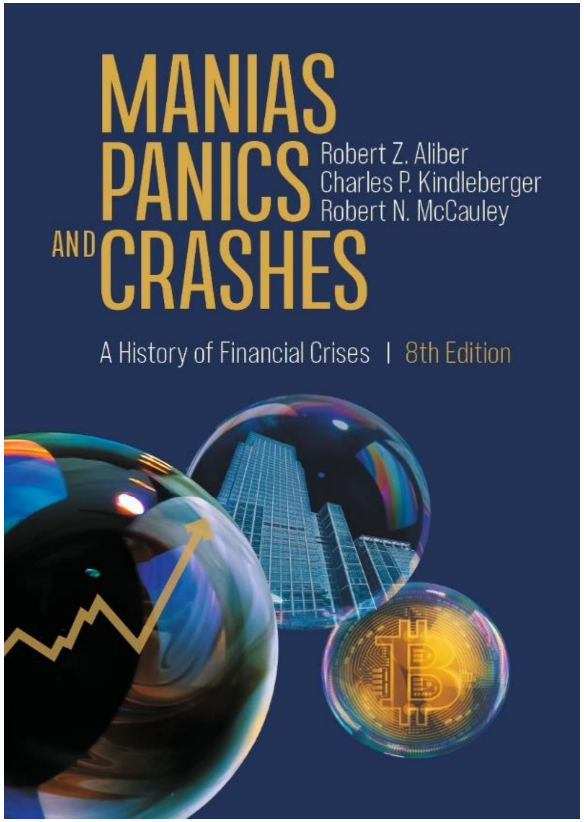
What the lecture will cover?

1. What "Boom-and-Bust" episodes have in common and repeat themselves throughout history? Use Kindleberger-Minsky's model *Anatomy of a Bubble.*
2. Application to a couple of historical episodes.
3. What can we learn from this model to unpack the ongoing real-estate crisis and slow down in economic growth in China?

"Remember, an economic boom is usually followed by an economic kaboom."

Readings


A FINANCIAL TIMES BEST BOOK OF THE YEAR
William Quinn
John D. Turner
BOOM AND BUST
A Global History of
Financial Bubbles


MANIAS PANICS AND CRASHES
Robert Z. Aliber
Charles P. Kindleberger
Robert N. McCauley
A History of Financial Crises | 8th Edition

A primer on bubbles/financial manias

- Kindleberger: An unsustainable upward movement that ultimately implodes.
    - A bubble that doesn’t implode isn’t a bubble.
    - Implication: it can only be confirmed with certainty *after* it bursts.
- Some economists reject the term "bubble" as meaningless. It has to be defined as ‘growing’ relative to the fundamentals.
- “Efficient Markets” economists vs economic historians.

Kindleberger’s Anatomy of a Bubble

The pattern is biological in its regularity

Displacement

- Introduction of a new major technology or event that disrupts the market→ promises huge profits!
- e.g., Wars, railroads, financial deregulation. Businesses reallocate investments.
- Price of asset start to rise (demand>supply).

Speculative Manias, Credit Expansion and Euphoria

- Profits attract more speculation.
- Banks make riskier loans.
- Euphoria: “**There is nothing so disturbing to one’s well-being as to see a friend get rich**.”
- Draws in novices & seasoned investors.
- FOMO drives investor and banks behavior alike.

Financial Distress /Profit-taking

- Early investors cash in and park their speculative gains elsewhere.
- Initial signs of hesitation in the market.
- Prices begin to level off, speculator-borrowers unable to repay their loans.
- Realization by many that “It’s time to withdraw.”

Panic and Crash (Minsky moment)

- The price of the relevant asset crashes because of sudden race to pull out of the sector.
- Debt-laden consumers pull-back on spending→ firms cut back production and reduce employment→ economic growth falls.

The Kindleberger/Minsky explanation

- The main thesis is that the cycle of manias and panics results from the pro-cyclical supply of credit.
  - Trouble brews when you (over) borrow money to speculate. Very clear!
- Combines economic model with history.
  - Insights from classical-era economists: Knutsell, Fisher, Minsky (late 1800s-early 1990s)
- Less clear on:
  - What exactly causes a displacement?
  - When does a distress turn into mania/crash? Minsky moment not well defined.

The Anatomy of the "Dutch Tulip Mania 1636-37"

- Displacement: Due to its rarity and exotic beauty, Tulips became a prized status symbol among the wealthy, amid the backdrop of a booming Dutch economy (1630s).
- Speculation and euphoria: Speculators bought in anticipation of selling to someone else at a higher price. The value of some bulbs exceeded the price of a luxury home in Amsterdam.
- Distress: By around February 1637, doubts emerged as prices plateaued, sparking fear among investors.
- Panic and crash: Market confidence collapsed, leading to a mass sell-off as buyers disappeared.
- Aftermath: The crash left many bankrupt, with tulips reverting to a fraction of their peak value. However, there was no widespread economy-wide recession (is it really a bubble then?)

Tulip Mania- a mania without bank credit expansion

- Instead, speculators made in-kind down payment in the form of:
    - 4 cows.
    - 8 pigs.
    - Tracts of land.
    - Silver and gold vessels.
    - Paintings.
    - A thousand pounds of cheese.

The Quinn and Turner Bubble Triangle

- Bubbles *do* have *some* positive aspects.
  - Facilitate innovation (some are transforming, such as railways), encourage entrepreneurship, provide capital for projects that would not otherwise be financed.
- Three elements to a bubble.
  - <u>Marketability</u>: how easy to buy and sell assets, e.g., the financial innovation in Mortgage-Backed Securities enabled the 2007 subprime bubble.
  - <u>Money and Credit</u>: two-way interaction between credit and asset prices.
  - <u>Speculation</u>: During bubbles, many novices become speculators, expert traders “ride the bubble.”
    - Chuck Prince, the former CEO of Citigroup, famously said: **"As long as the music is playing, you’ve got to get up and dance."**

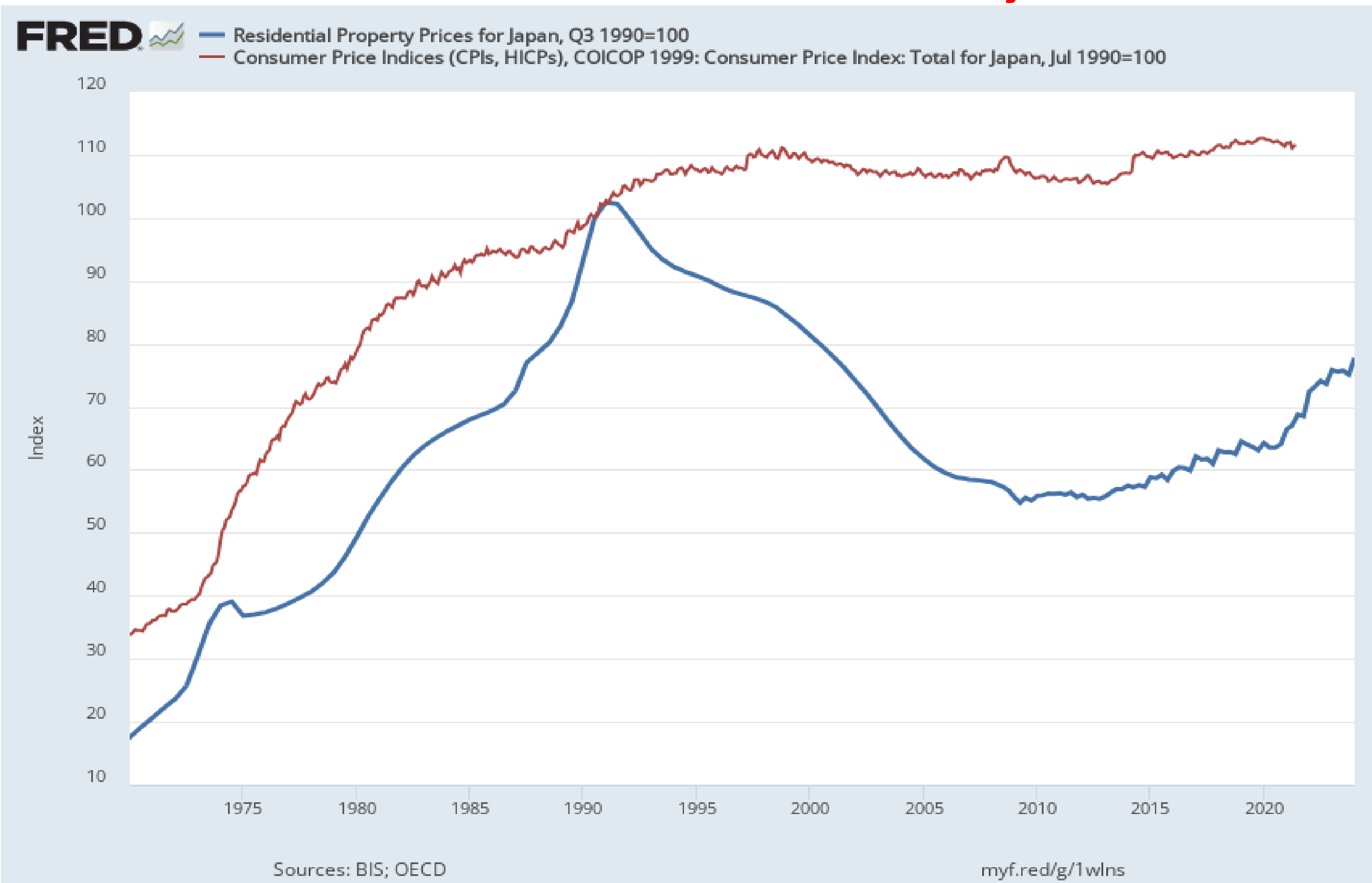
Quinn and Turner's complement Kindleberger's ideas

- More explicit/narrow about the source of the displacement (the event that sparked the bubble) are:
  - New technology: attracting profits and grabbing media headlines.
  - Government policy: a rise in asset prices is engineered deliberately to either reshape society (e.g., increase home-ownership) or enrich a politically important group.
- Government policy can help trigger/exacerbate a bubble (U.S. subprime crisis 2007) or end a bubble (China Evergrande 2021).

Japan – late 1980s to 1990

- After a massive financial deregulation, Japan's property and stock market surged: land prices quadrupled and the stock market more than tripled (1985-89).
- Many early investors and banks profited from the bubble, inviting even more people into the market, feeding into a speculative frenzy.
- However, when the bubble burst, the gains were wiped out, leading to significant financial distress for both investors and financial institutions. Many Japanese remain traumatized this collapse and have very passive investment behavior.

Japan's House Price Index and Consumer Price Index, 1970-2024




Nikkei 225: 1965-2023
Source: Yahoo! Finance
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
-
1965
1967
1969
1971
1973
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021
2023

Application of Quinn & Turner's Bubble Triangle to Japan

- Marketability: land, real-estate and stocks became much more marketable due to massive deregulation policies in the mid 1980s (at the urging of the United States) aimed at shifting the Japanese economy toward the services sector—> increased demand for urban office space.
- Money and Credit: Tax breaks and subsidies for private real estate companies, banks increased home loans, tax changes that incentivized investors to speculate in stocks.
- Speculation: Success "stories" invite more speculation.
  - Land prices were so high, Kyoto Imperial Palace worth as much as California. 1985-87: price of land in 6 major cities rose by 44%.
  - All Japanese citizens appeared to become rich simultaneously during the bubble.
    - But, household debt/GDP rose from 52% to 70% (85-90)
  - Lots of foreigners came to Japan to party.

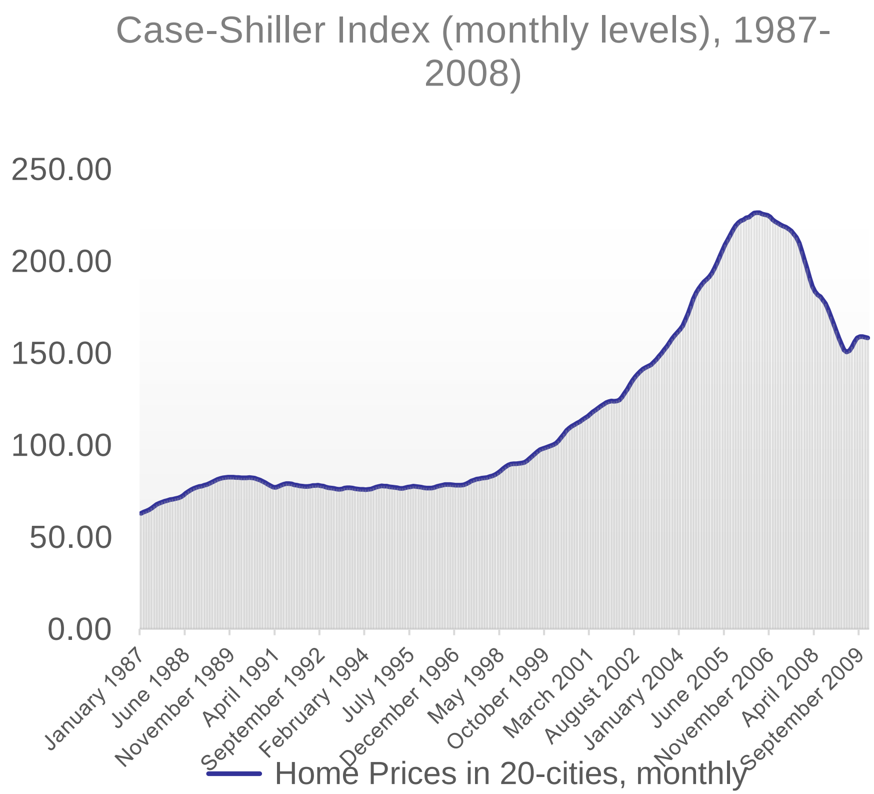
- In 1989,the Bank of Japan raised interest rates and this arguably popped the bubble. Home price collapsed, as did stock prices.
- Consequences of the bubble:
    - Banking system had high Non-Performing Loans, but were allowed to still operate (“Zombie” analogy).
    - Debt-deflation explanation:
    - The value of the debt for people stayed the same, while prices and wages fell→ People were left with a large mortgage and a devalued house→ to continue repaying debt, they’d have to cut back on spending→ lowering demand but with the same supply, prices will fall even more.

The United States: 2008–09 financial crisis & recession

- In the U.S., a similar boom-and-bust in the housing market led to the largest financial crisis since the Great Depression.

After home prices fell in 2006:

- Stock prices fell (approx. -40%).
- Top investment banks failed
- Constructions sector collapsed, consumers cut spending on consumer durables, cars etc.
- GDP declined by 4%
- Unemployment doubled to 9.8%.



“The property crunch in China since 2021 has incinerated some $18 trillion in household wealth, equivalent to around *$60,000* per family.”

(Barclay’s via Wall Street Journal, 2024)

LET’S TURN TO CHINA

Evergrande- September 2021

Evergrande: a heavily-indebted Chinese <u>property developer</u> based in Shenzhen.

Evergrande was the world's most valuable real estate company in 2018 (~$41 bn)

- Now, bankrupt – this is one of Evergrande's apartments and office towers. Reported to be as large as the country of Monaco.

As of Sept 2024, Evergrande had approximately 90 million empty housing units, esp n smaller cities with declining populations.

- Around Sept 2021, Evergrande had a difficult time meeting its debt obligations of $300bn (officially declared bankruptcy in January 2024).
- From 9/8/21 to 9/21/21, its stock price has fallen by abt 64%, market cap was reduced from $41 bn to $3.7 bn.
- Why does it matter?
    - Only one of many other ‘troubled’ Chinese real estate firms.
    - Financial troubles bleed into the real economy.
        - With property contributing to 25-29% of China’s GDP growth, a collapse of these companies could lead to an average GDP growth of only 4% over the next 5-10 years (Financial Times, Sept 2021).
    - When China sneezes, the world catches a cold. This could have important negative impact on the economies of the rest of the world

Source: Financial Times.

A Property Mania with Chinese Characteristics- Applying Kindleberger

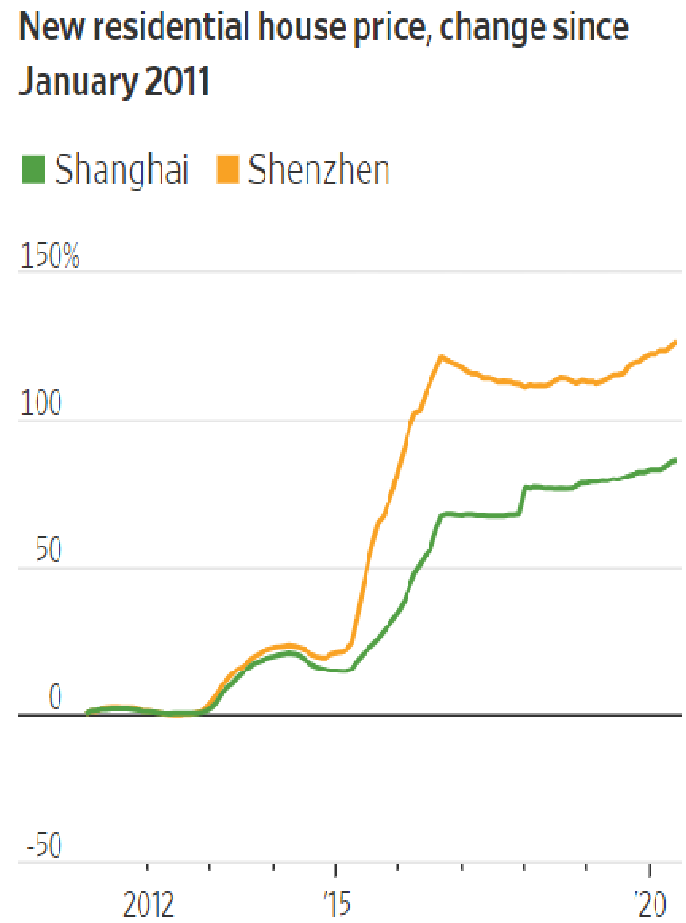
- Displacement and boom:
  - Rural-urban migration and privatized housing.
  - Millions of middle-class Chinese families accumulated wealth.
- Euphoria and Credit expansion:
  - Mortgage debt grew rapidly between 2008-19, due to State-owned banks introduced floating rate mortgages.
  - However, <u>pre-sales</u> is still the most important source of funding for property developers, which is problematic.
    - Developers essentially borrowed from households, with a collateral that is not yet built.
- As soon as word got out about millions of unsold units sitting empty, financial distress turned into panic although the government helped speed the process along.

Government policy played a role in the property sector boom

- A State Council decision in 1998 abandoned the country's system of employer-allocated housing, and homeownership took off.
    - Prior to that, it was highly regulated.
- By end of 2019, about 96% of China's urban households owned at least one home (Chinese central bank survey data 2019), vs 65% homeownership rate in the U.S.

Quinn and Turner: Government Policy caused the bursting of the bubble

- Three Red Line– concerned with property bubble, the government wanted the property sector to deleverage by preventing them from issuing new debt if it did not meet certain criteria (e.g., liability/asset<70%).
  - In June 2021, Evergrande didn't meet the new regulations, so it could not raise additional debt, leaving it on the hook for $300bn of debt.



Negative consequences on China’s real economy

- Fall in consumer confidence in 3 decades.
    - Interest rates have been lowered, but data suggests households and businesses aren’t interested in borrowing.
- Deflation.
- Slowing exports and reduced private investment.
- The stock market lost 1/3 of its value from three years ago.
- Chinese companies defaulted on more than $100 billion of overseas bonds between 2020 and late 2023.

Can government policy fix the consequences of the bursting of the bubble?

- The approach has been piecemeal, including: a) easing home purchase restrictions, b)central banks have been cutting rates, c)real estate projects get injection of funding from SOBs.
- <u>May and Sept 2024 plan:</u>
- Conversion of Empty Properties (unsold and vacant) into affordable housing units.
- Financial Support for local governments to purchase unsold homes.
- Eased Mortgage Rules: Relaxation of mortgage requirements to encourage home buying.
- The central bank also announced it would offer 500 billion yuan in loans, equivalent to roughly $70 billion, to funds, brokers and insurers to buy Chinese stocks as part of an effort to lift the country’s ailing stock market.
- Whether these plans would work in the longer term remain an open question!