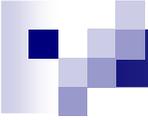


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**Academic Year 2022/2023**

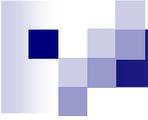
**International Economics**  
**International Finance**  
**(International crises – chapter 12**  
**- lecture 7)**

***Maurizio Pugno***  
**University of Cassino**



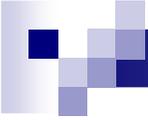
# The crises throughout the world

- Increasing international economic integration has created opportunities for growth and development, but it has also made it easier for crises to spread from one country to another.
- The greatest worldwide crises are:
  - the Great Depression in the 1930s,
  - the Great Recession that began in 2008,
  - the Covid-19 crisis
  - the Ukraine war crisis (?).



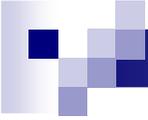
# The international crises of the 1990s

- Other 'minor' crises are:
  - in 1992, currency speculation against the British pound and the Italian Lira caused the collapse of monetary arrangements (well before the Euro system);
  - in late 1994, speculation against the Mexican peso led to its collapse and spread the crisis throughout South America;
  - in 1997, several East Asian economies (Malaysia, S.Korea) were thrown into steep recession by a wave of sudden capital outflows;
  - in 1998, Russia's default on its international debt sent shockwaves as far as Latin America.



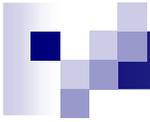
# An overview on what the international crisis means

- Every historical international crisis has its own specificities.
- Here, we will look at the general characteristics of the international crises.



# When financial crises arise

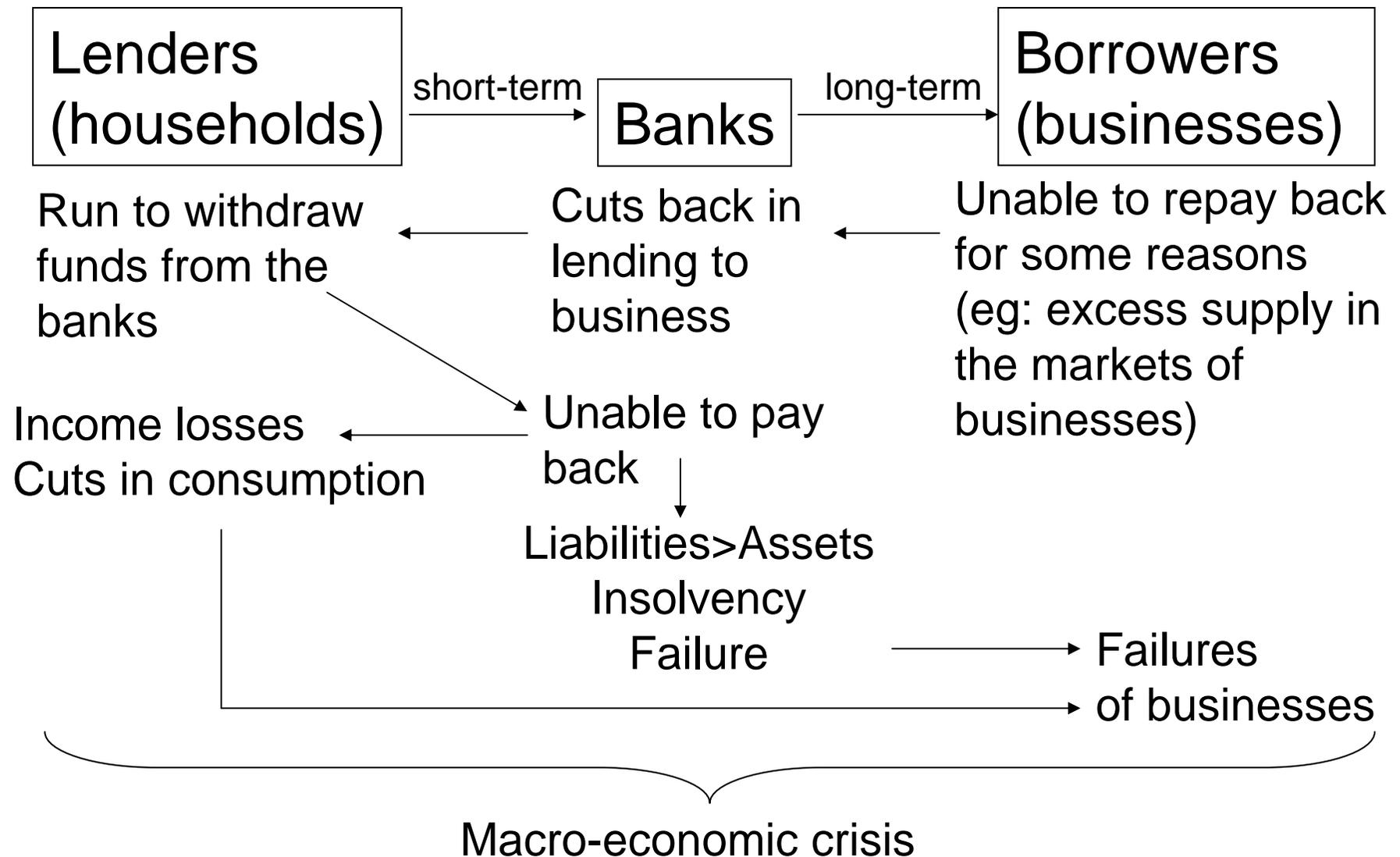
- A financial crisis arises when borrowers do not repay back the debt.
- This is often the case when borrowers are also lenders, and their debt is short term, while their credit is long term.
- Therefore a crisis usually started as a result of a massive withdrawal of short-term liquid funds while credits cannot be paid back because they are long-term.



# Three types of financial crises

- The banking crises
- The exchange rate crises
- The debt crises

# The banking crises



# A run to withdraw funds from the bank (Northern Rock – US – 2007)





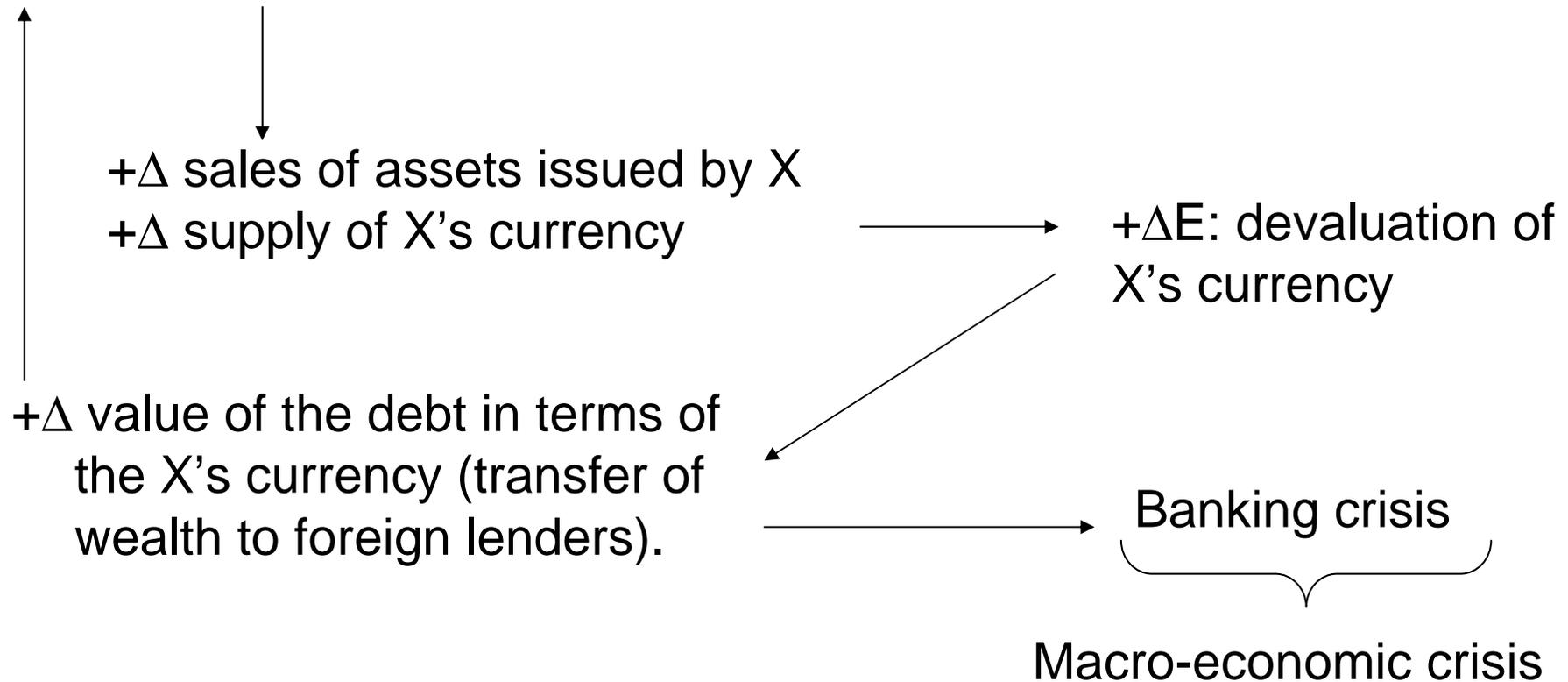
# The exchange rate crises

Premises:

- The country X needs financial capital from abroad in order to finance excess imports (eg necessary key inputs for industrial development).
- The country X borrows in a major foreign currency (eg the \$) because (foreign) lenders worry (based on past experience) about being repaid with a devalued currency of the nation.
- An external shock occurs (eg  $+\Delta i$  for internal reasons, change of government, international political or economic crisis)

# The exchange rate crises (BoP crises)

– $\Delta$  foreign financial lenders' belief that the country X is able to repay the funds



# The debt crises

Premises (alternative or together):

- The public sector increases its debt for various reasons (ie it sells bonds to finance excess expenditure over revenues).

→ + $\Delta$  public debt/GDP

- The private sector borrows funds to buy assets in the expectation of future capital earnings.

→ + $\Delta$  private debt

↓  
The price of assets grows far more than the value they represent (BUBBLE).

Excessive financial liberalisation. Lenders may ignore the risks of the assets.

↓  
Asset price busts



# The debt crises (cont)

- Debtors cannot pay and must restructure their debt.

Restructuring debt means:

- lowering the rate of interest,
- lengthening the payback period,
- partial forgiveness,
- debt repudiation.

- The country loses credibility.
  - Foreign lenders cut back lendings (deleveraging).
  - The exchange rate tends to devalue.
  - Policies become restrictive ( $+\Delta T, +\Delta i$ ).
- Macroeconomic crisis.

# Stock market prices during the Great Depression (1929-1940)



**FIGURE 8.2** Stock Price Data During the Great Depression Period

Stock prices crashed in 1929, falling by more than 60%, and then continued to fall to only 10% of their peak value by 1932.

Source: Dow-Jones Industrial Average (DJIA), <http://lib.stat.cmu.edu/datasets/djdc0093>.

# Stock market prices during the Great Recession (2007-2010)

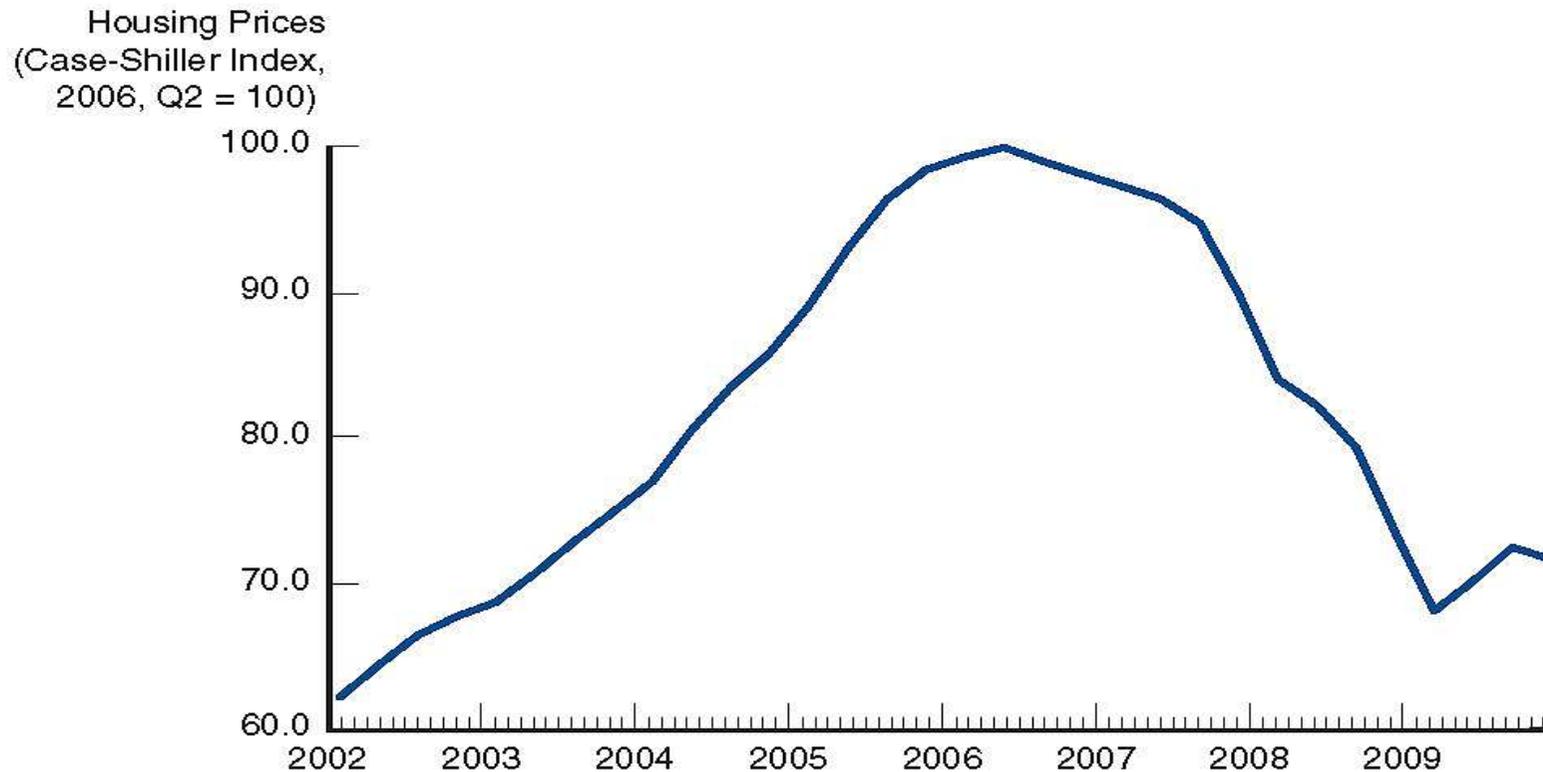


**FIGURE 8.5** Stock Prices and the Financial Crisis of 2007–2009

Stock prices fell by 50% from October 2007 to March of 2009.

Source: Dow-Jones Industrial Average (DJIA), available at <http://finance.yahoo.com/q/hp?s=%5EDJI>.

# The housing bubble in the US

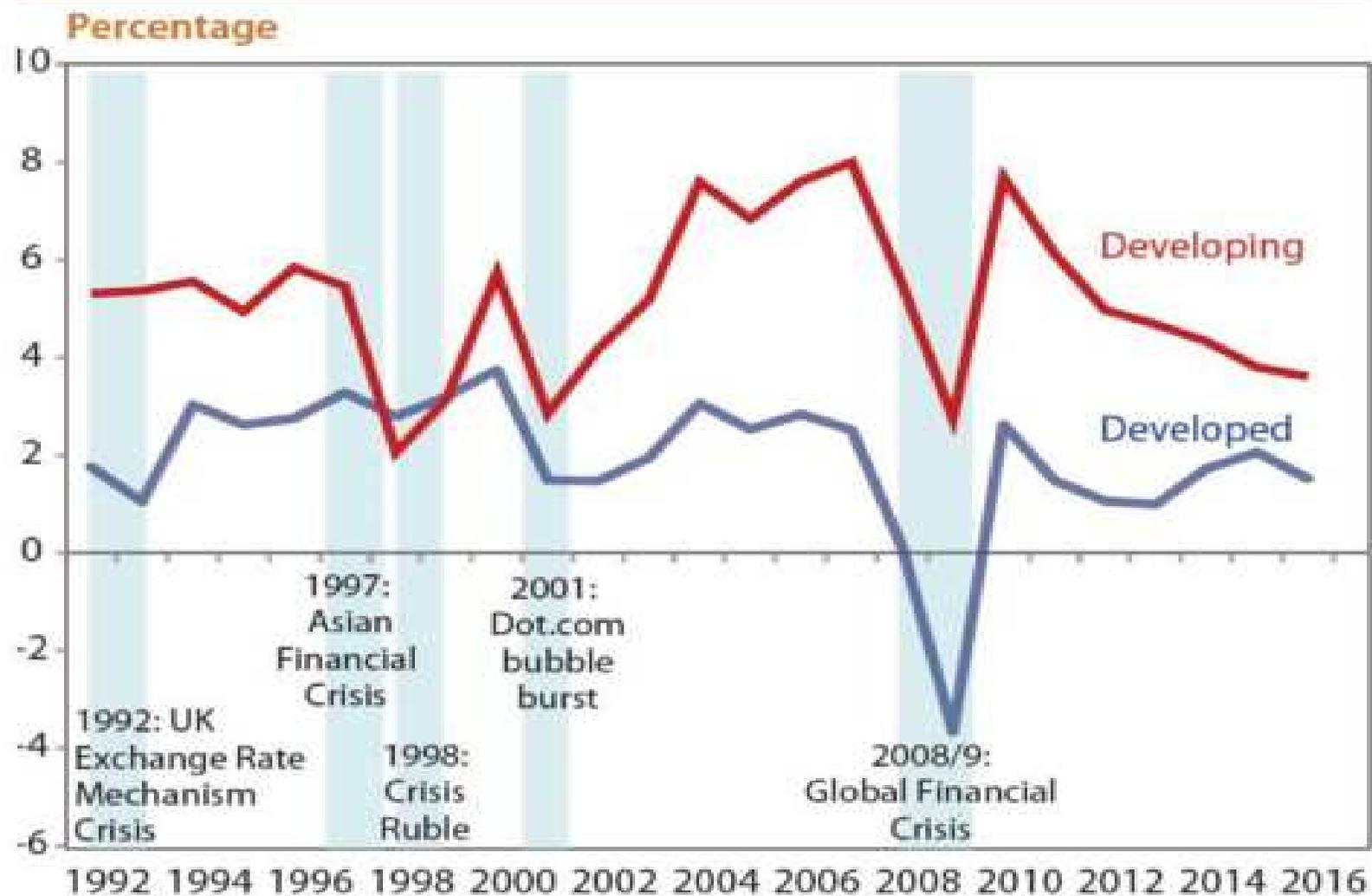


**FIGURE 8.4** Housing Prices and the Financial Crisis of 2007–2009

Housing prices boomed from 2002 to 2006, but then fell by more than 25% subsequently.

Source: Adapted from Case-Shiller U.S. national composite house price index, available from [http://www.macromarkets.com/csi\\_housing/index.asp](http://www.macromarkets.com/csi_housing/index.asp).

## World GDP growth, 1998-2015

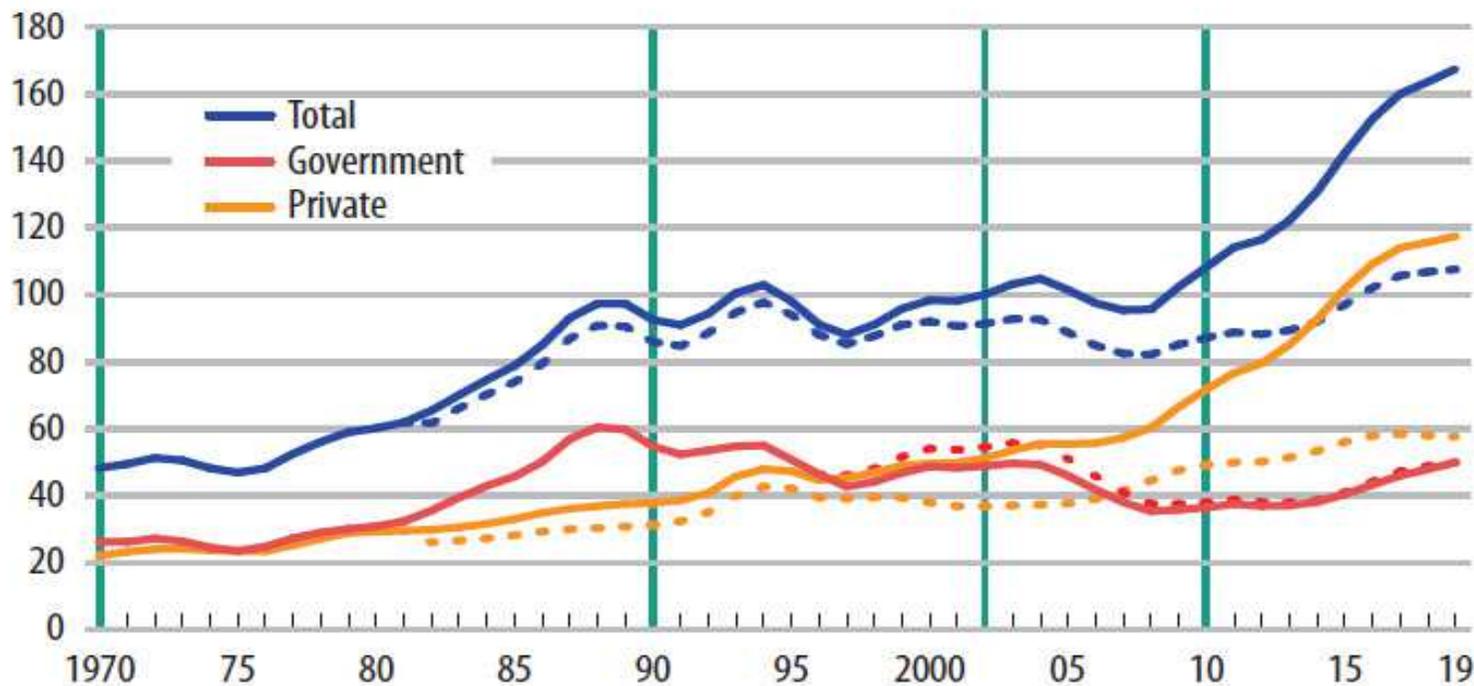


Source: UN/DESA.

## Ballooning debt (1970–2019)

During the past decade, total debt in emerging market and developing economies rose to a historic peak.

(percent of GDP)



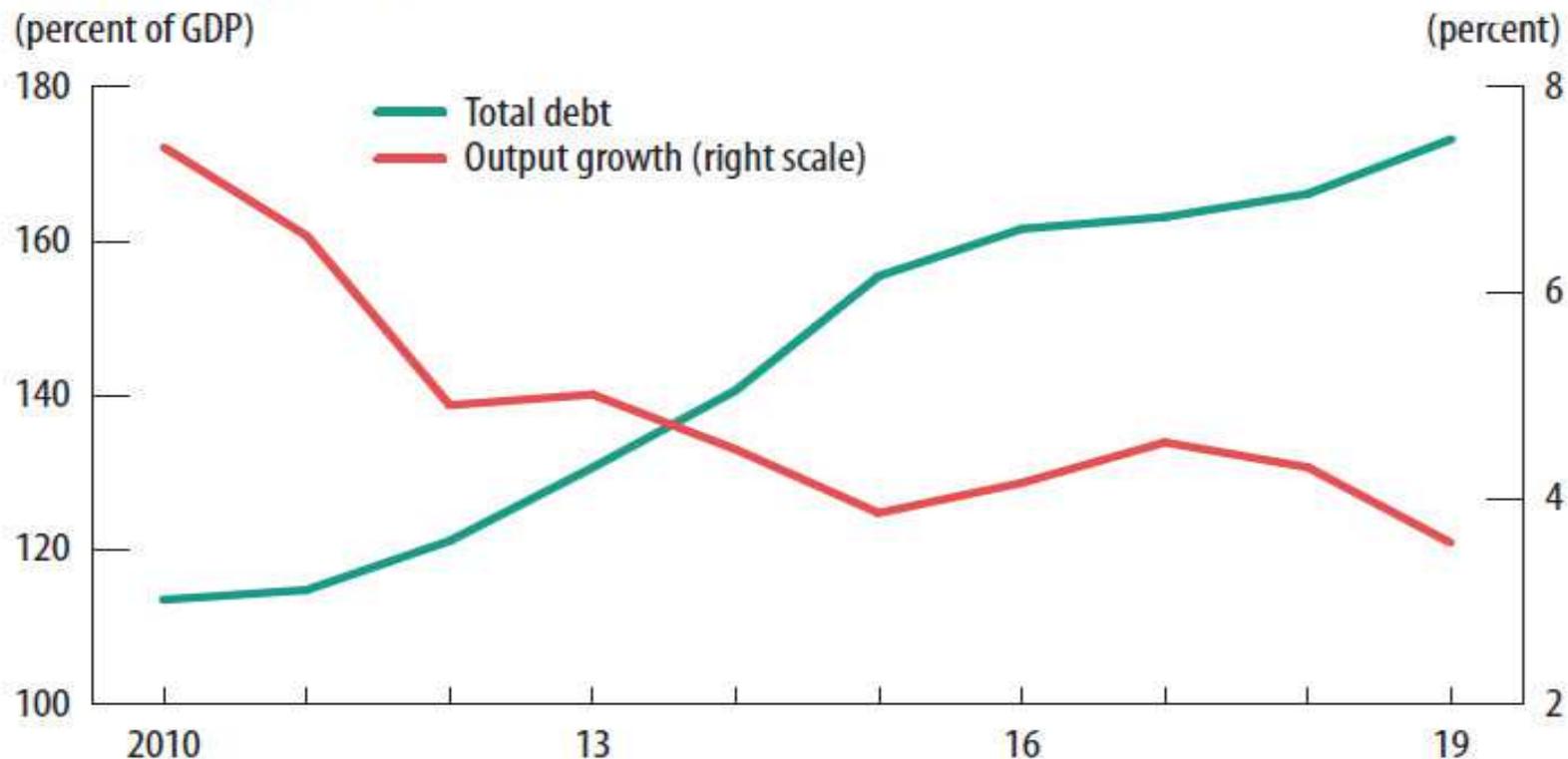
**Sources:** International Monetary Fund; Kose and others (2020); and World Bank.

**Note:** Aggregates are calculated using current US dollar GDP weight and are shown as a three-year moving average. Dashed lines show debt, excluding China. The vertical lines represent the beginning of debt waves in 1970, 1990, 2002, and 2010.

## Growth and debt (2010–19)

Accompanied by higher debt in emerging market and developing economies, growth has repeatedly disappointed.

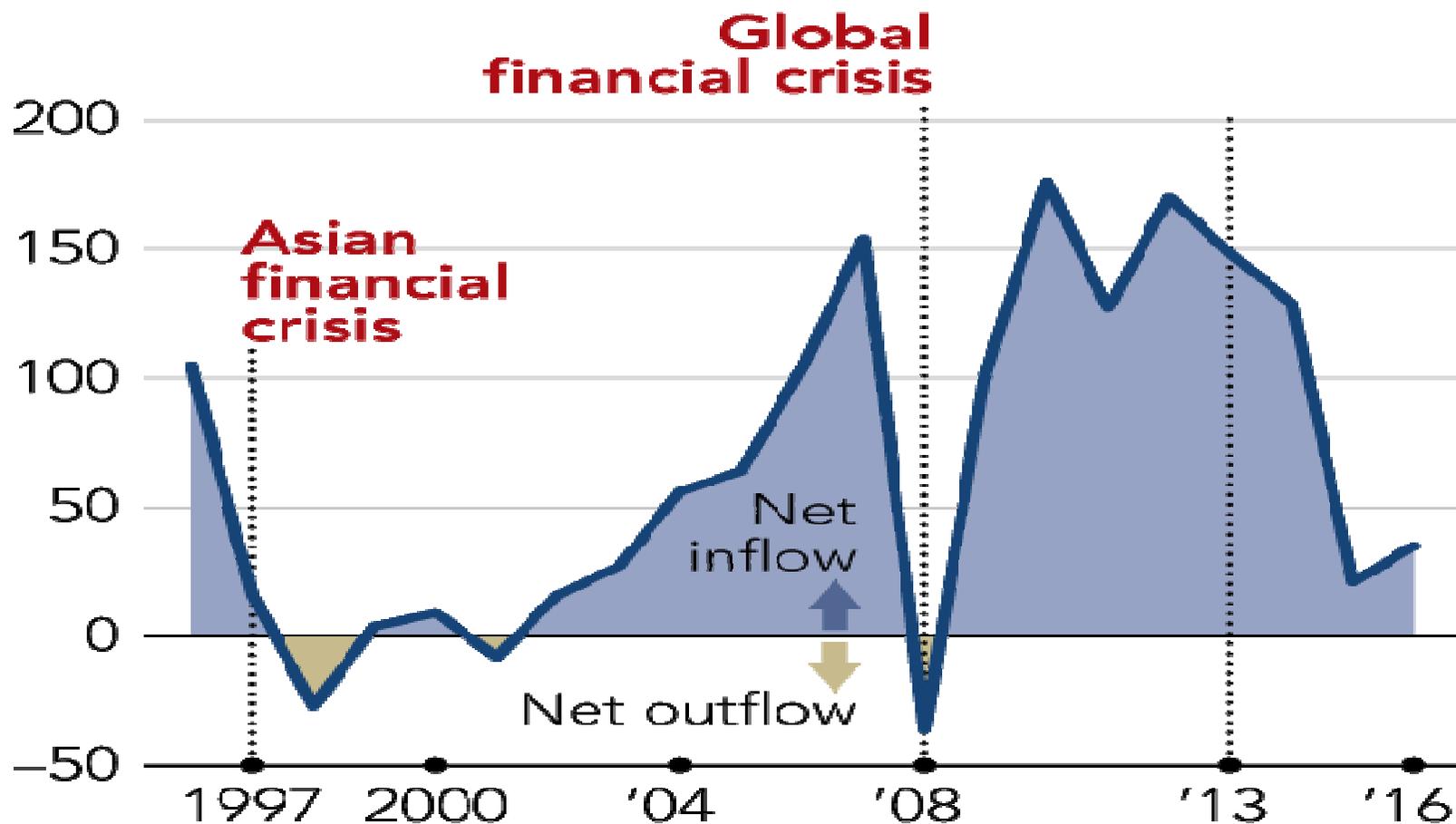
(percent of GDP)



**Sources:** International Monetary Fund; Kose and others (2020); and World Bank.

**Note:** Total debt (in percent of GDP) and real GDP growth (weighted by GDP at 2010 prices and exchange rates) in emerging market and developing economies.

## Capital flows for emerging Asian economies *(in billions of dollars)*



Figures for five countries: Thailand, Malaysia, Philippines, South Korea, Indonesia  
Source: Institute of International Finance



# Vulnerabilities to crises

- Banking, exchange rate, and debt crises are more likely when the economy is weak and vulnerable.
- However, economic vulnerabilities do not predict crises with certainty.
- The outbreak of the crisis is often unexpected.
- If lenders expect the crisis, they accelerate it by taking back their credits. I.e., the expectations of lenders matter a great deal.



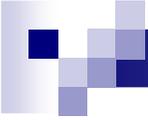
# Vulnerability from macro-imbbalances

- The main macroeconomic imbalances are:
  1. more public debt than economic growth ( $+\Delta\text{debt}/Y$ ), due to recurrent  $T-G < 0$ ,
  2. large current account deficits ( $CA < 0$ ).
  3. overvalued E,
  4. high levels of private sector debt (recurr.  $S-I < 0$ ).
- The case of both  $T-G < 0$  and  $CA < 0$  (twin deficits problem) is due to insufficient resources produced:  
 $I = (T-G) - CA + S$  If less I, then less T, more M and less S.



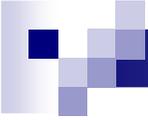
# Relative macro-imbances

- Macro-imbances are relative to the imbalances of other countries, or to international turmoils. Speculators attack the most vulnerable country.
- The moment of crisis onset is unpredictable, but unless the underlying conditions are corrected, it is almost certain to occur eventually.



# Vulnerability: the role of poor policy

- Poor fiscal or monetary policy may make the country vulnerable through large budget deficits or high rates of inflation.
  - The need to finance budget deficits can make governments vulnerable to a change in the perceptions of lenders about their probability of being repaid.
  - Inflation with a fixed exchange rate creates vulnerability through a real appreciation of the currency and a loss of competitiveness.



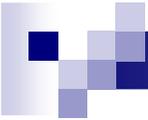
# Vulnerability from capital volatility

- Volatility of financial capitals means high and quick movements of in- and out-flows.
- Vulnerability arises when capital inflows build up a great stock of foreign liabilities, so that a sudden change in investor expectations may be a triggering factor of a financial crises.
- The underlying weakness is the need for such great stock.



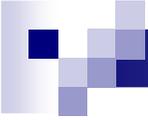
# Causes of volatile capital flows

- Liberalisation of capital markets.
- Technological advances in communication and in moving capital flows.
- The discovery of large emerging markets.
- The need of financial investors in high-income countries to diversify their portfolios.
- The increasing availability of savings in some high-growing countries.



# Vulnerability from the financial sector

- A financial sector is in a weak position if:
  - it takes short-term loans from the international markets,
  - and uses them to fund long-term loans (such as real estate) on the local market.
- An outflow of funds from the country can be interpreted as bad news about the underlying economic conditions, and lead to an avalanche of capital flight.



# Why the crises are unpredictable

- First, there are multiple possible outcomes—or in economic terms, there are multiple equilibria—depending on the responses of international lenders.
- Second, one of the possible outcomes is a crisis, but the crisis is self-fulfilling. It is not predetermined, nor is it necessary.
- Third, the crisis affects banks that are fundamentally sound, but that have mismatches between the maturities of their debts and their assets. In other words, they are illiquid, but not insolvent.



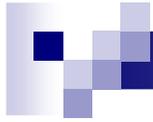
# Contagion

- Most crises are domestic. Only some of them become international.
- Many crises, however, spill into other countries, and even if they do not become a global crisis, they nevertheless affect more than just the country where it originates.
- Banking or other financial linkages may not be visible or known until a crisis begins, but ultimately they will be exposed if the crisis persists or is deep enough.



# Early warning signals of E crisis

	<i>Signal</i>	<i>Warning is issued when:</i>
1	Real exchange rate	The domestic currency is overvalued
2	Trade deficit	The value of exports fall and/or the value of imports rise
3	Official reserves	Too small relative to domestic supply of money
4	Stock prices	The stock market index declines
5	Public debt	The debt/Y increases
6	Inflation	Poor policy
7	Foreign debt	Financial sector is weak



End of the 7th lecture  
of  
International Finance  
*M. Pugno*