

# FINANCIAL CRISES AND ITS IMPACT ON THE FINANCIAL SYSTEM

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Lecturer – Oleg Deev  
oleg@mail.muni.cz

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The following lecture will give you only a brief overview of financial crises theory. However, the presented information will provide you with the structure of existing ideas and issues, what I believe will be a guide for you through the vast amount of current information on crisis and its solutions

# Definition

- **Crisis** – is a situation of a complex system, when big changes, usually bad, appear possible
- **Economic crisis** – a situation in the economy, which indicates a sharp transition to a recession
- **Financial crisis** – a situation in which some financial institutions or assets suddenly lose a large part of their value
  - Banking crisis
  - Currency crisis
  - Stock market crash
  - Sovereign default

# Historical overview

- Financial crises prior to 17<sup>th</sup> century are connected to sovereign defaults
- 1637 – tulip mania in the Netherlands
- 1866 – the Overend & Gurney crisis in England
- Going back to the first half of 20<sup>th</sup> century and before there many examples of financial crisis, which were significantly frequent
  - One of the significant outcome of crises was the establishment of central bank's control and supervision over the financial system
- 1929 – stock market crash
- early 1930s – banking crisis in the US
- The Great Depression
- 1945-1971 – no banking crises anywhere in the world (apart from one in Brazil in 1962)

# Some solutions of the Great Depression

- Herbert Hoover's programs (1930-1932):
  - Smoot-Hawley Tariff Act – raised tariffs on imported items
  - Federal Home Loan Bank Act – promoted new home constructions and reduced foreclosures
  - Emergency Relief and Construction Act – included funds for public works programs
- Franklin Delano Roosevelt's programs (1933-1934):
  - Securities Act of 1933 – regulated the securities industry
  - Securities Exchange Act of 1934 – created Securities and Exchange Commission (SEC)
  - Glass-Steagall Act (The Banking Act of 1933 - “repealed” in 1999) – federal insurance of bank deposits; separation of bank types according to their businesses (commercial and investment banking)

# 1945-1971 – period without financial crises

- Bretton-Woods financial system
- Extensive regulation of the financial system
- Governments controlled the allocation of funds to different industries through state-owned banks or heavily regulated banks
- Financial system was ceased to perform its basic functions of allocating investments
- Financial market inefficiencies
- Calls for deregulation

# Theories of crises - categories

1. Financial panic (multiple equilibrium)
2. Business cycle (essential crises)
3. Inconsistent government macroeconomic policies
4. Bubbles creation and collapse
5. Amplification (contagion and fragility)
6. Flawed government microeconomic policies

# Financial panic

- **Bank run** – a situation, when a bank suffers a sudden rush of withdrawals by depositors
- **Credit crunch** – a situation, in which banks are reluctant to lend, because they worry that they have insufficient funds available
- Causes of financial panic are different in every situation
- Example: Northern Rock – In the beginning of the global financial crisis bank sought and received a liquidity support from the Bank of England to replace funds it was unable to raise from the money market. This led to panic among individual depositors fearing that their savings might not be available (first bank run in UK in 150 years)



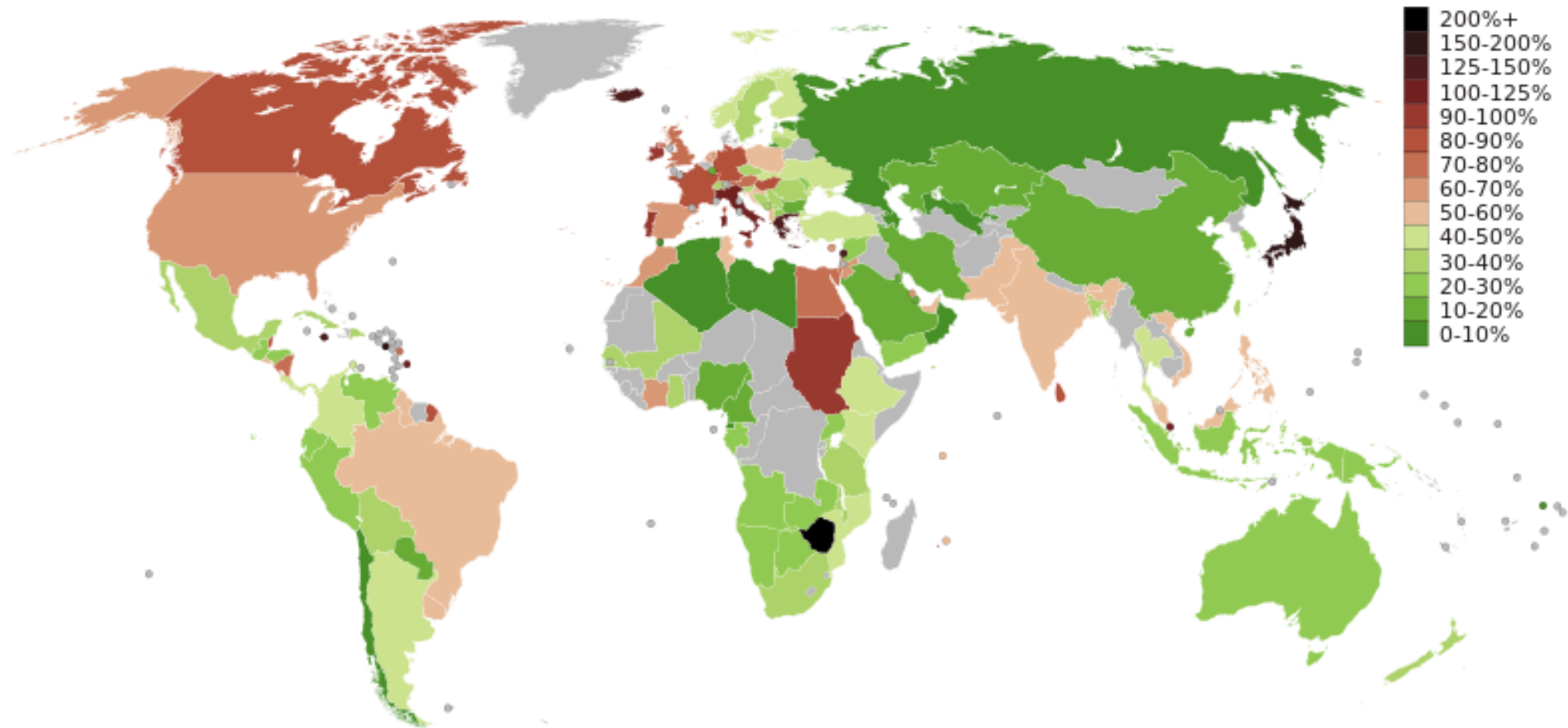
# Business cycle

- Economy functions with fluctuations, which occur around a long-term growth trend, and typically involve shifts over time between periods of relatively rapid economic growth and periods of relative stagnation or decline
- The returns on bank assets will be low when the economy goes into a recession or depression
- Given banks' fixed liabilities in the form of deposits or bonds they may be unable to remain solvent

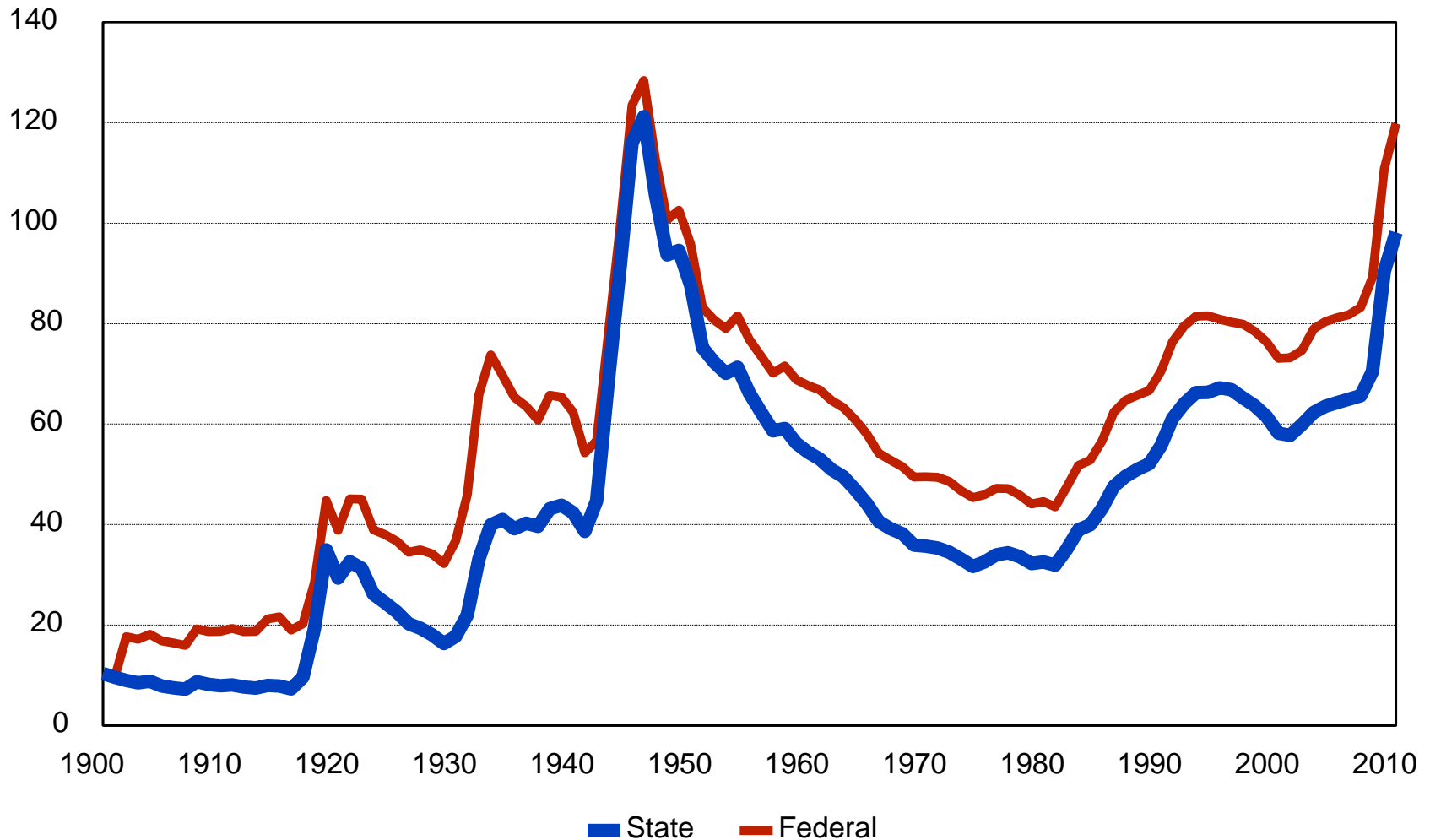
# Inconsistent macroeconomic policies

- Mostly connected with the currency crises and inflow/outflow of speculative investments
- Crises arise as a result of government strategies that are inconsistent with a fixed or pegged exchange rate or inadequate monetary policy
- Growth of state debt is an indicator of possible financial crisis

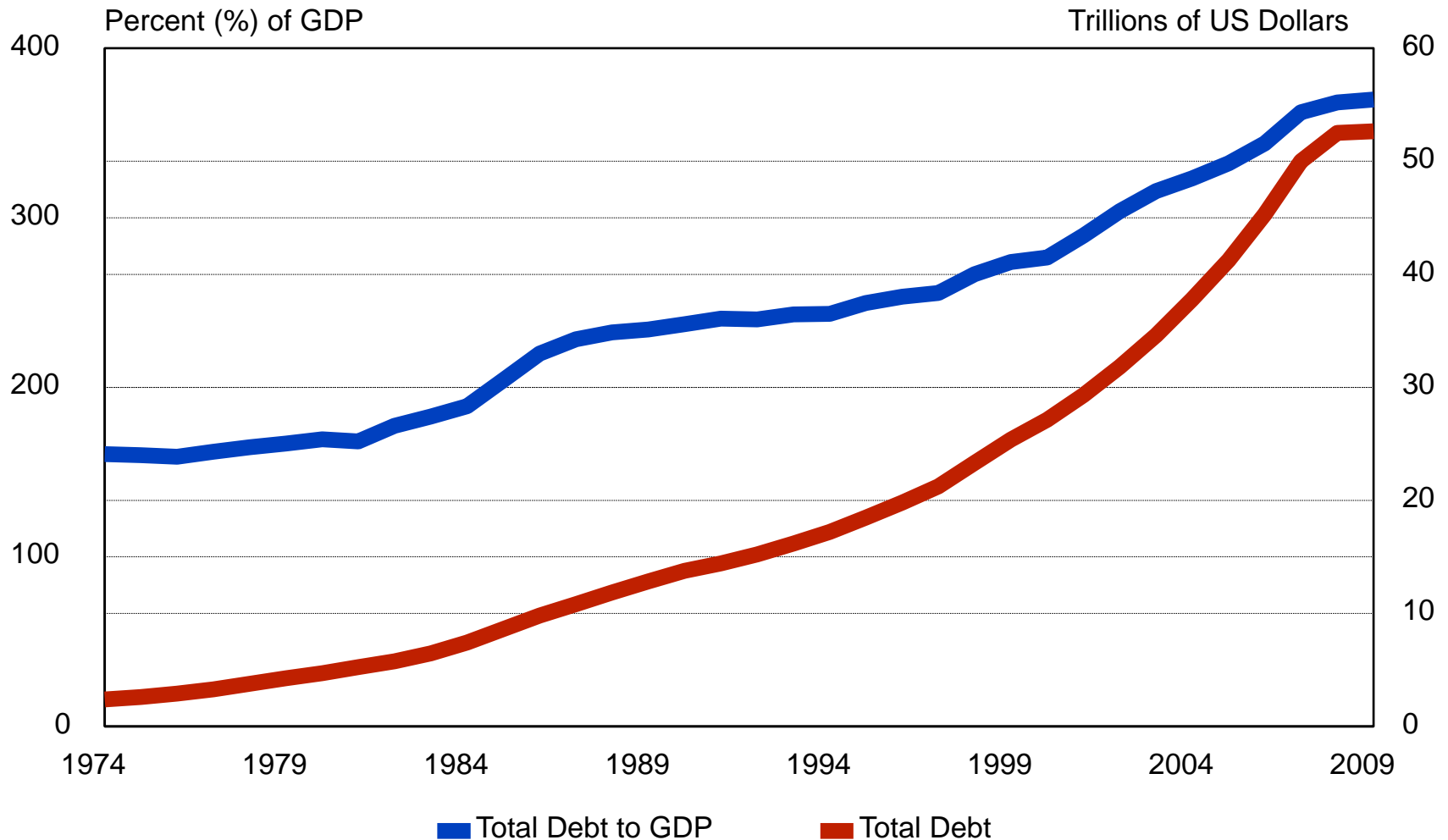
# Government debt as % of GDP (2010)



# Federal and State US Government Debt as % of GDP



# Total US Debt Outstanding (Household, Business & Government)



# Bubbles in asset prices

- **Bubble** in a financial asset – a situation, when the price of asset exceeds the present value of the future income
- It is difficult to tell in practice whether an asset's price actually equals its fundamental value
- Financial crises occur after a bubble in asset prices collapses
- Examples: Wall Street Crash of 1929, Japanese property bubble of 1980s, dot-com bubble in 2000-2001

# Financial contagion and fragility

- **Financial contagion** – a situation, in which small shock, which initially affect only a part of financial system, spread to the rest of the system
  - Causes of contagion: trade and real links, interbank markets, financial markets co-movement (co-integration), payment systems interdependence
  - Example: Asian financial crisis of the late 1990s
- **Financial fragility** – a situation, when a small shock has a large effect on the financial system.
  - One of the mechanisms – shock spreads geographically
  - Example: Russian default in August 1998. Amount of debt defaulted on was very small relative to assets in the world, however around three quarters of the world's stock markets fell in the day after the announcement

# Flawed microeconomic policies

- Crises are due to:
  - guarantees of the banking sector by the government (for example, deposit insurance) – leads to a moral hazard where banks knowingly take excessive risks
  - or the prospect of bail outs by the government or international organizations – the notion of “too big to fail”
- Another possible problem is the lack of adequate bankruptcy procedures (inadequate domestic bankruptcy laws, lack of established procedure for the bankruptcy of sovereign countries)



# Theories of crises - discussion

- Which theory explains the nature of crises better?
- Crises are complex phenomenon in practice
- There is no one theory of crises that explain all aspects of the phenomenon
- Any theories of crises are not mutually exclusive
- Actual crisis may contain elements of some combination of previously discussed theories
- In your opinion which theory explains the global financial crisis of 2007-2010?

# Policy issues

- Financial crises pose many policy issues
- Since the Great Depression it has been taken as axiomatic by many policymakers that crises must be avoided at all costs
- Much of the banking and financial regulation that exists is designed to prevent crises
- One of the cornerstones of finance is the idea that projects with high risk have high returns on average. This suggests that if an economy is to have high expected returns to allow it to grow quickly it must also have a high degree of risk associated with its capital stock. High growth may therefore be correlated with frequent crises. Eliminating crises by forcing banks and hence firms to take less risks may slow the growth of the economy

# Policy issues

- To what extent are crises desirable or undesirable?
- Should there be a central bank to provide liquidity to the financial system?
- Should there be an international lender of last resort?
- Should central banks intervene to prevent bubbles in asset prices?
- Do individual institutions pose a systemic risk to the financial system and if so what can be done about it?
- Are government guarantees of the banking system desirable?

# Global financial crisis of 2007-2010

- The collapse of the US housing bubble
- Downturn in stock market all over the world (50% fall of the Dow Jones Index)
- Collapse of large financial institutions (Lehman Brothers, AIG)
- The bailout of banks by national governments (Northern Rock, Fannie Mae, Freddie Mac)
- Global economic recession in 2008
- European sovereign debt crisis

# The mechanism of credit crisis

The short film “The Crisis of Credit Visualized” (available on YouTube) illustrates the mechanism of the subprime mortgage crisis in the US

After watching this film you should be able to answer the following questions:

1. What are the direct and indirect causes of the global financial crisis of 2007-2010?
2. What is leverage?
3. What is the role of rating agencies in the financial crisis?
4. In your opinion what measures should be taken to overcome the credit crisis?

# What happened?

## **Low interest rates, high leverage and overconfidence led to the creation of bubbles which then burst**

- US housing market went bust and real estate prices started falling
- Prices of complex financial securities that were created to underwrite the housing market collapsed
- Institutions that issued these assets along with the investors that bought them suffered huge losses in many cases exceeding the capital of these firms
- Losses along with collapse in confidence in these products triggered a financial meltdown starting from Wall Street and rapidly spreading to London, Continental Europe, Asia and the Rest of the World
- With the global financial system on the verge of total meltdown, governments stepped in to avert mass panic and an economic collapse that would result in a global depression worse than that of the 1930s

# What did governments do?

## **Intervened in order to prevent a systemic collapse and an economic depression**

- Governments responded swiftly and decisively to save the system from collapse by applying Keynesian economics (based on the hard lessons that were learned in the 1930s)
- Central banks stepped in and provided liquidity to the banking system (allowing it to keep functioning)
- Slashed interest rates
- Expanded the money supply
- Governments provided bailouts for major financial institutions to avert their collapse or took them over outright
- Governments also cut taxes and raised spending to prevent the economy from falling into a deep recession or even depression

# Recovery remains too dependent on government support

- Although economies are rebounding around the world, the recovery is not even
- The emerging economies of China, India, Brazil are faring better and leading the rebound
- The economies of the USA, Europe and Russia are lagging behind
- Recovery is still overly dependent on government spending, bailout money and low interest rates
- Intervention came at a high price:
  - unprecedented expansion in the supply of money and
  - unprecedented peacetime expansion in government deficits



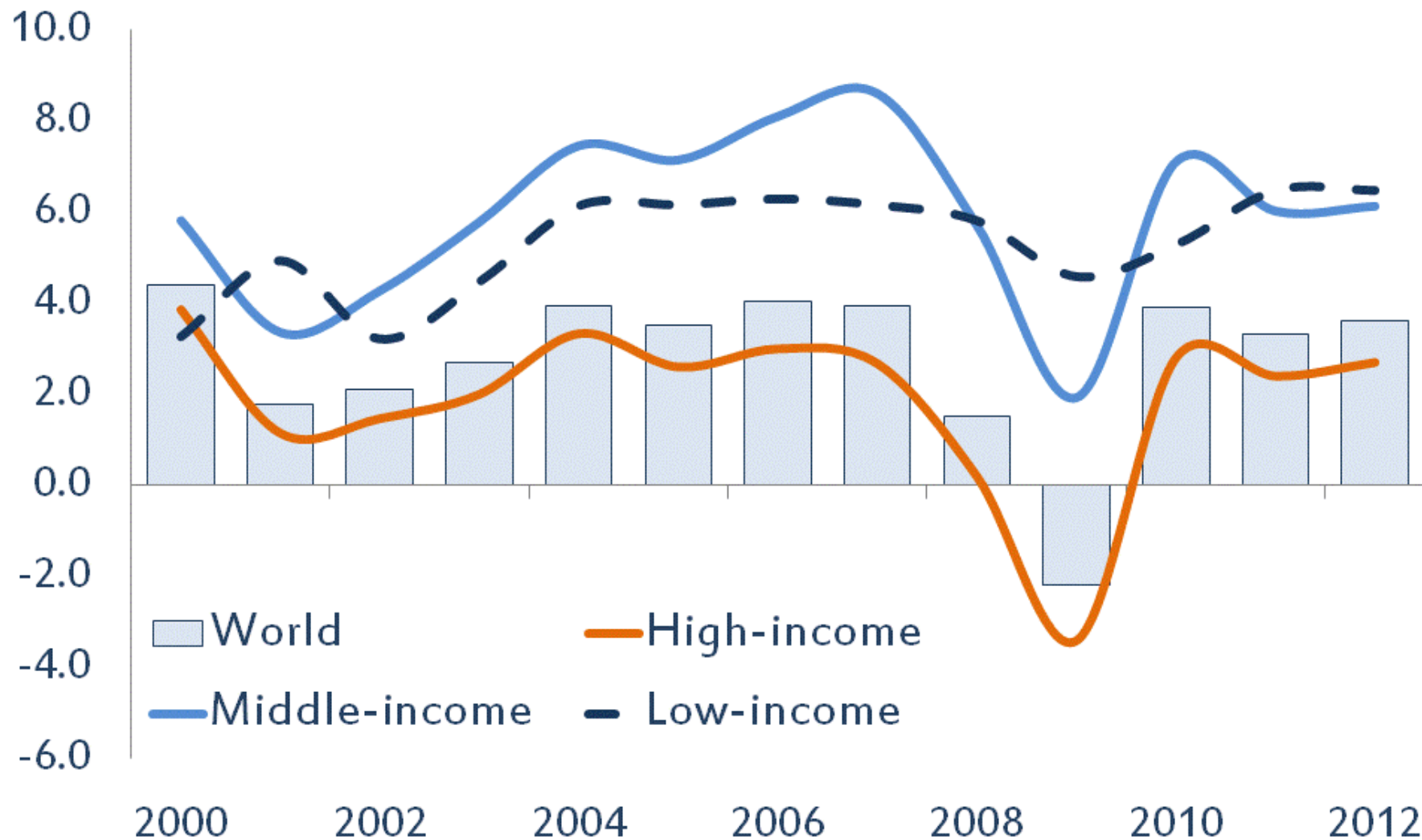
# Causes of the global financial crisis

- The inability of home owners to make mortgage payments
- Poor sense of judgment by borrowers and lenders
- Speculation and overbidding during borrowing period
- Risky mortgage products
- High personal and corporate debt
- Complex financial innovation that concealed default risk (for example, over-the-counter default swaps derivatives)
- Lack of proper government regulation
- Global macro imbalances (for example, between U.S (deficit) and some emerging economies, incl. China (surplus))
- Weak financial institutions
- Exchange rate problem adjusted by system

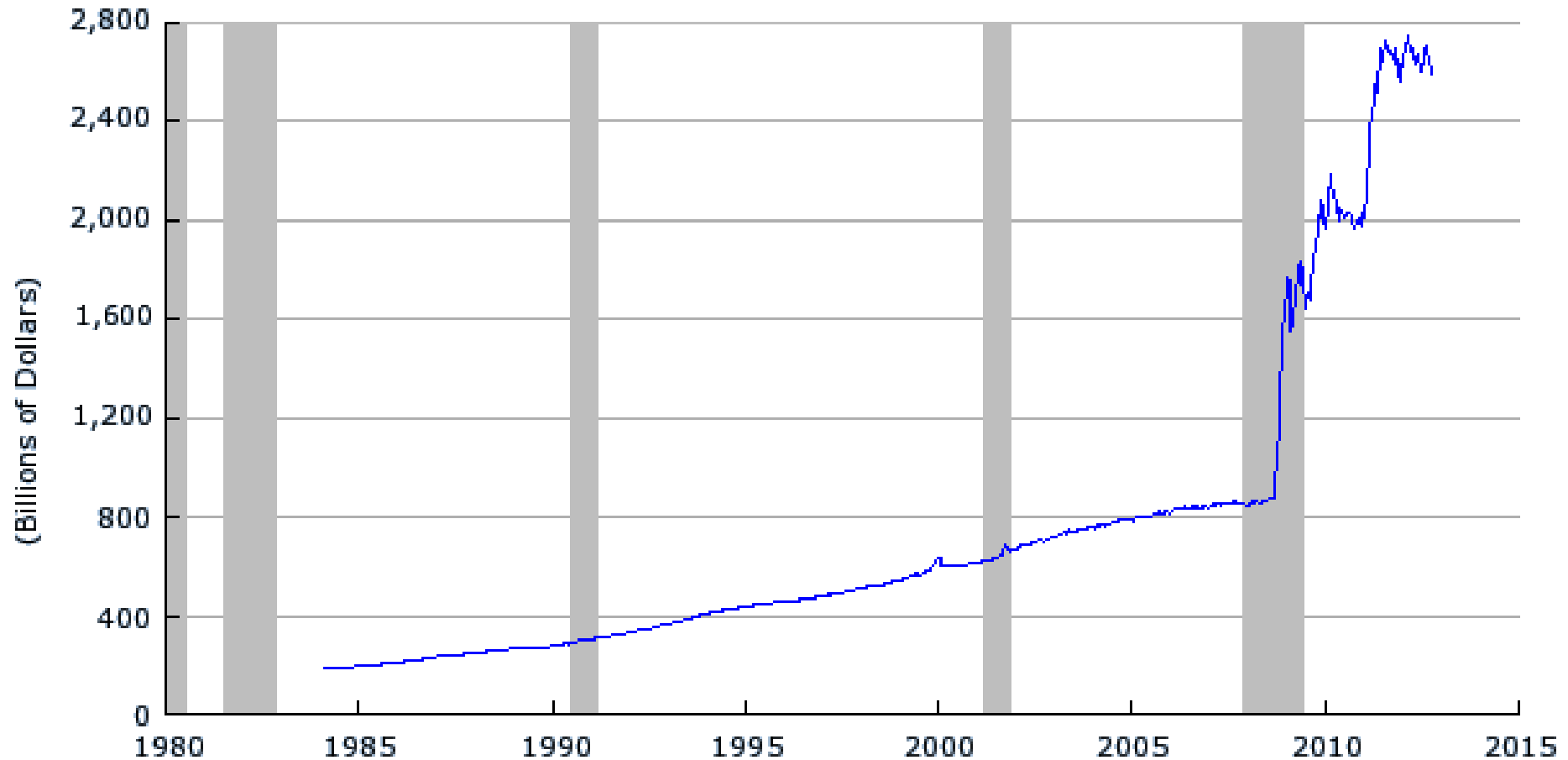
# Impact on the global financial system

- Falling of capital markets
- Nationalization of large financial institutions
- Increase of sovereign debts in many countries
- Fall in governments revenue
- Fall of exchange rates
- Deficit balance of payments
- Rising levels of unemployment and inflation
- Possible implementation of new regulation procedures to avoid future crises

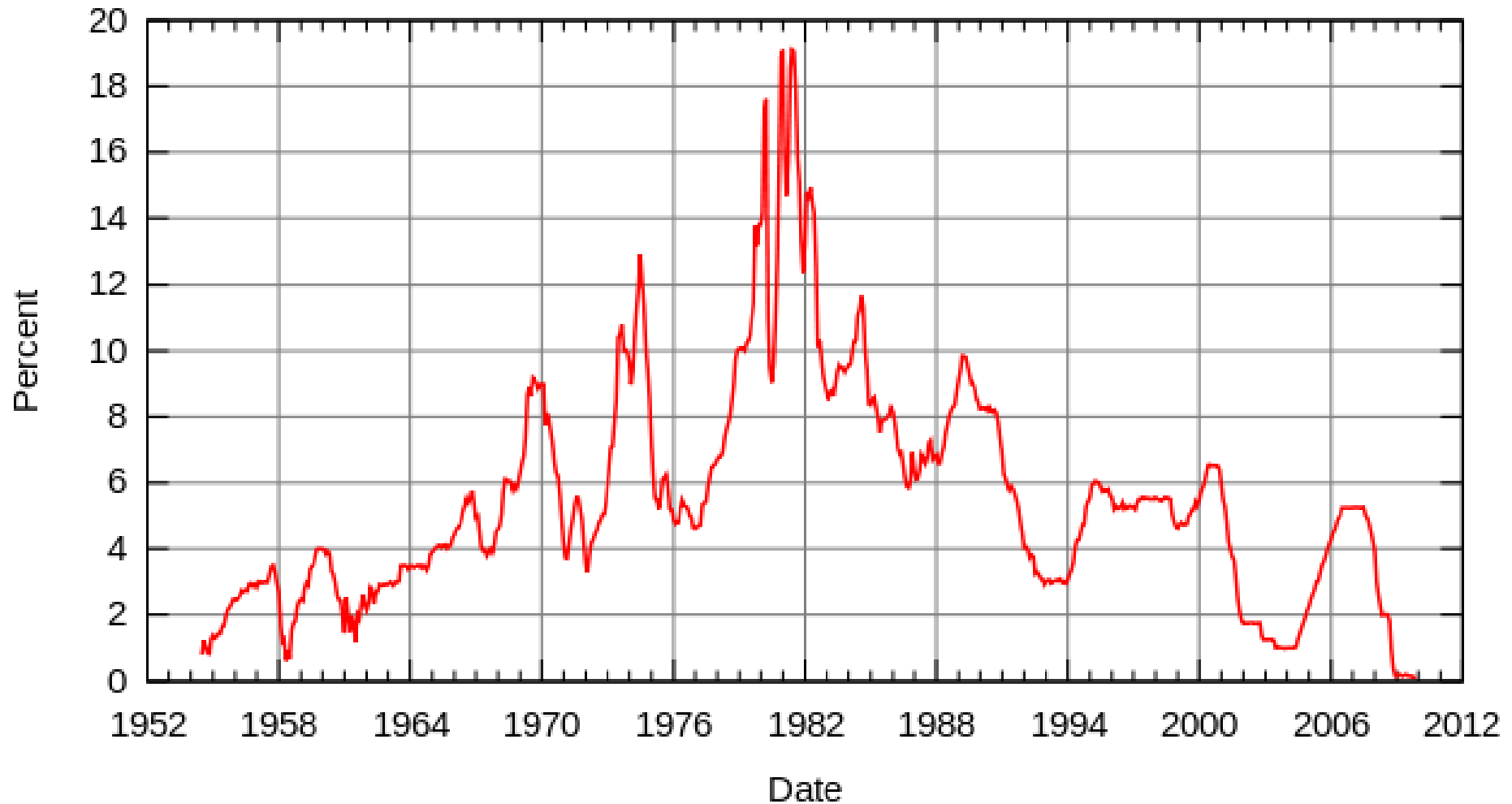
# Real GDP growth rates, in %



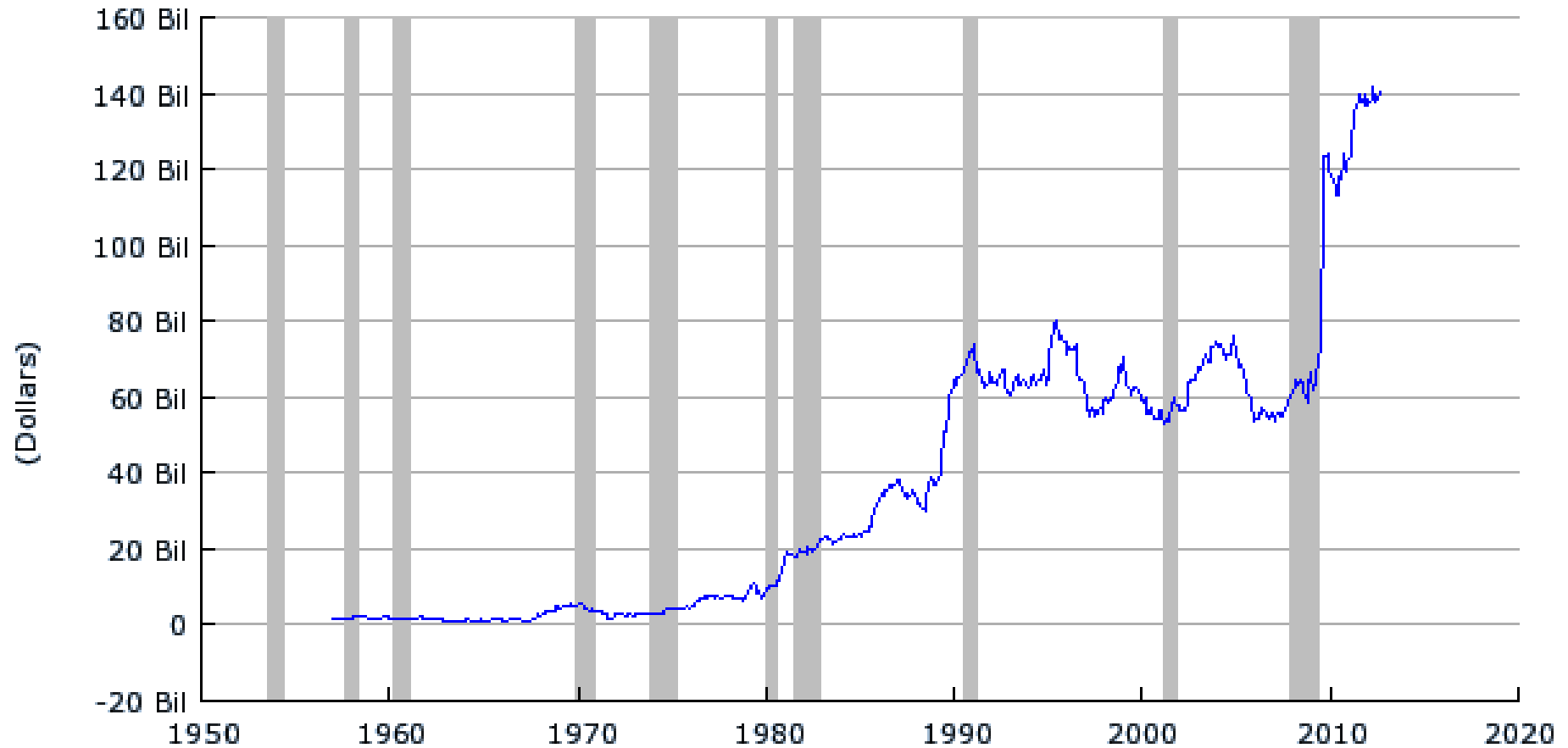
# Adjusted Monetary Base in the US



# Effective US Federal Funds Rate, %



# US Total Reserves (excluding Gold)



# General Government Net Liabilities as % of GDP

