



The Macroeconomy: finance, monetary policy and production in historical perspective

**THE INTERNATIONAL WORKING GROUP ON GENDER,
MACROECONOMICS AND INTERNATIONAL ECONOMICS
(GEM- IWG)**

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MACROECONOMY



- **Production**
- **Labor**
- **Finance – Capital markets**

VOLCKER'S FEDERAL RESERVE (1979-1987)



- The Federal Reserve's experiment of *practical monetarism* showed there was no empirical correlation of M1 and inflation (and nominal income)
- It brought record interest rates which led to
 - high unemployment rates up to 9.7 %
 - the Savings and Loan crisis
 - rising debt ratios of domestic firms and foreign countries

GREENSPAN'S FEDERAL RESERVE OF MOVING TARGETS AND SOFT LANDINGS (1987-2006)



- **Continues tight monetary policy leading to
 - capital losses in bond markets
 - stock market crashes of 1987 and 1989
 - unraveling of the junk bond market
 - forced to pump liquidity to avert financial crises**
- **Returns to tight policy once crises are abated**
- **Announces goal of “soft landings” to be achieved through tight policy**
 - **raises discount rate 11 times to 7 % through 1990**



- **Reduces short-term rates after recession (1991-2)**
- **Announces (1993) a change in target variables: long-term real interest rates**
 - **admits that real interest rates are not observable**
 - **expected inflation becomes a guide**
- **Fears future inflation, raises federal funds rate (1994)**
- **Debate on rules vs. discretion (Taylor Rule)**
- **Uses “intuitive” policy making to avert future inflation**
 - **accommodates the Clinton expansion**
 - **tightens money policy 1999**
 - **reverses policy in 2001-2002**
 - **tightens money policy 2004-2005**
 - **lowers interest rates and establishes the “New Monetary consensus”**
 - **agents and financial markets accept the notion of the “Greenspan Put”**

MONETARY- POLICY RULE

$$R_t = RR^* + d_1 Y_t^g + d_2 (p_t - p^*)$$

where: R is nominal rate of interest

**RR* is the equilibrium real rate of
interest consistent with zero
output gap**

Y^g is the output gap

p_t is the rate of actual inflation

p^* is the desired inflation

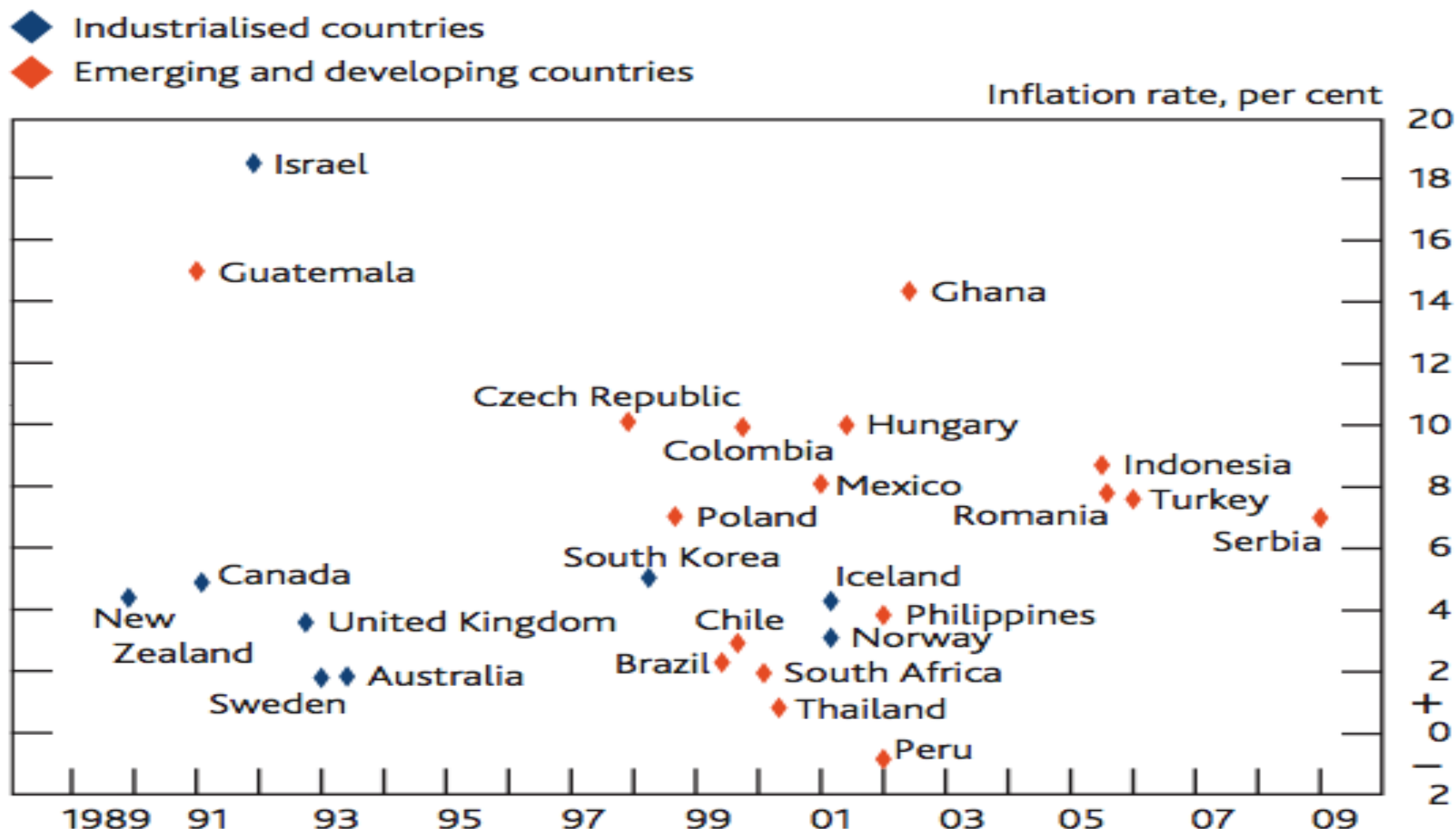
$d_1 = 0.5$ and $d_2 = 1.5$ (normally)

INFLATION TARGETING

Basic tenets

- **the setting by government of a numerical target range for inflation**
- **the use of monetary policy to achieve the target with interest rate adjustments**
- **operation of monetary policy by an “independent” Central Bank**
- **monetary policy cannot affect real variables in the long-run; it can only affect inflation**

26 Countries operating a fully fledged inflation-targeting regime



Sources: Bank of England and other central bank websites.

EMPIRICAL RESULTS

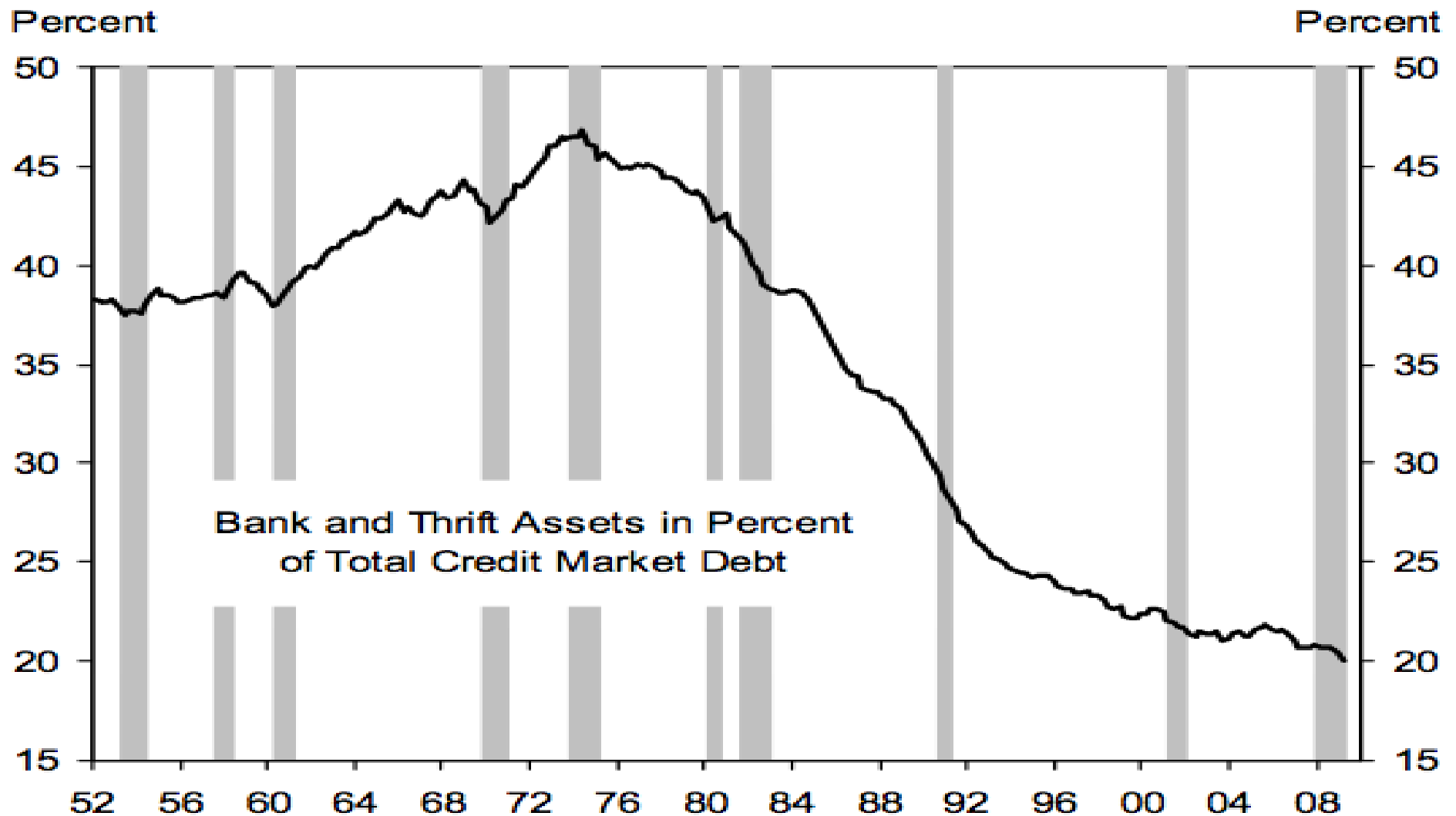
- Failure to produce *convincing* evidence that inflation targeting improves inflation performance and policy credibility
- In a number of countries (New Zealand, Canada, U.K.) inflation had been “tamed” well before adoption of inflation targeting
- In a study of 20 OECD countries, seven of which adopted inflation targeting no evidence was found of improvement in economic performance as measured by inflation, output and interest rates

CONCLUSION

- **The apparent success of inflation targeting countries is merely due to their high initial inflation...but the decrease for an initial level looks similar for targeters and non-targeters**
- **The recent “low inflation” era is not different for targeters and non-targeters and non-inflation targeting countries. Consequently, inflation targeting has been a great deal of fuss about very little**

EVOLUTION OF FINANCIAL MARKETS

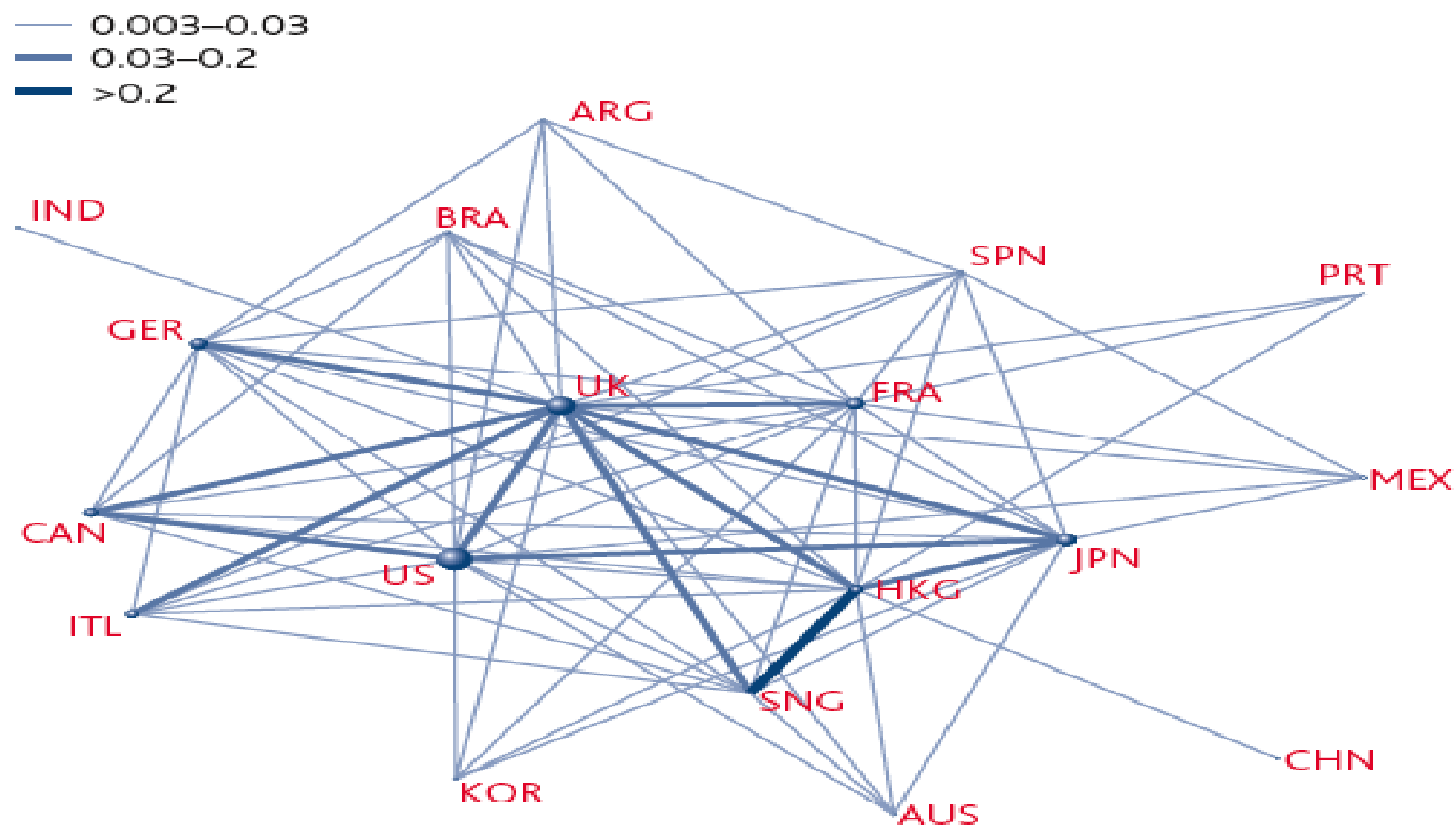
Banks Have Become Less Important for Credit Intermediation



Source: Federal Reserve Board.

FINANCIAL GLOBALIZATION

Global financial network, 1985

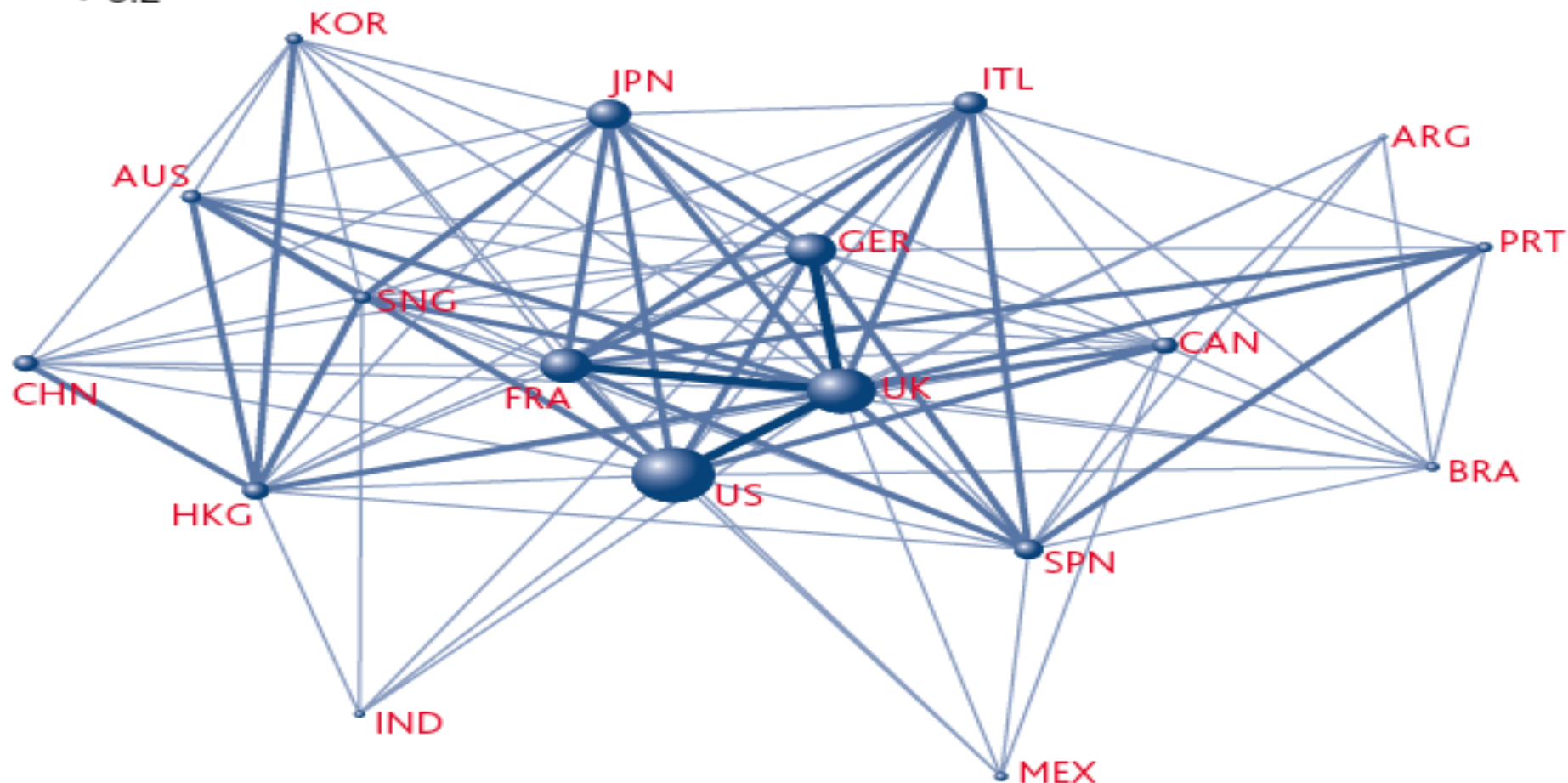
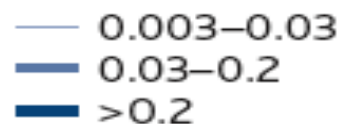


Sources: BIS, IMF, OECD, UNCTAD and Kubelec and Sa (2009).

NOTE: Nodes represent countries and are scaled in proportion to a country's gross external financial stocks (Total External Assets + Total External Liabilities). The thickness of the lines between the nodes is proportional to the bilateral external financial stocks, relative to the nodes' combined GDP, ie $(\text{Total External Assets}_{ij} + \text{Total External Liabilities}_{ij}) / (\text{GDP}_i + \text{GDP}_j)$.

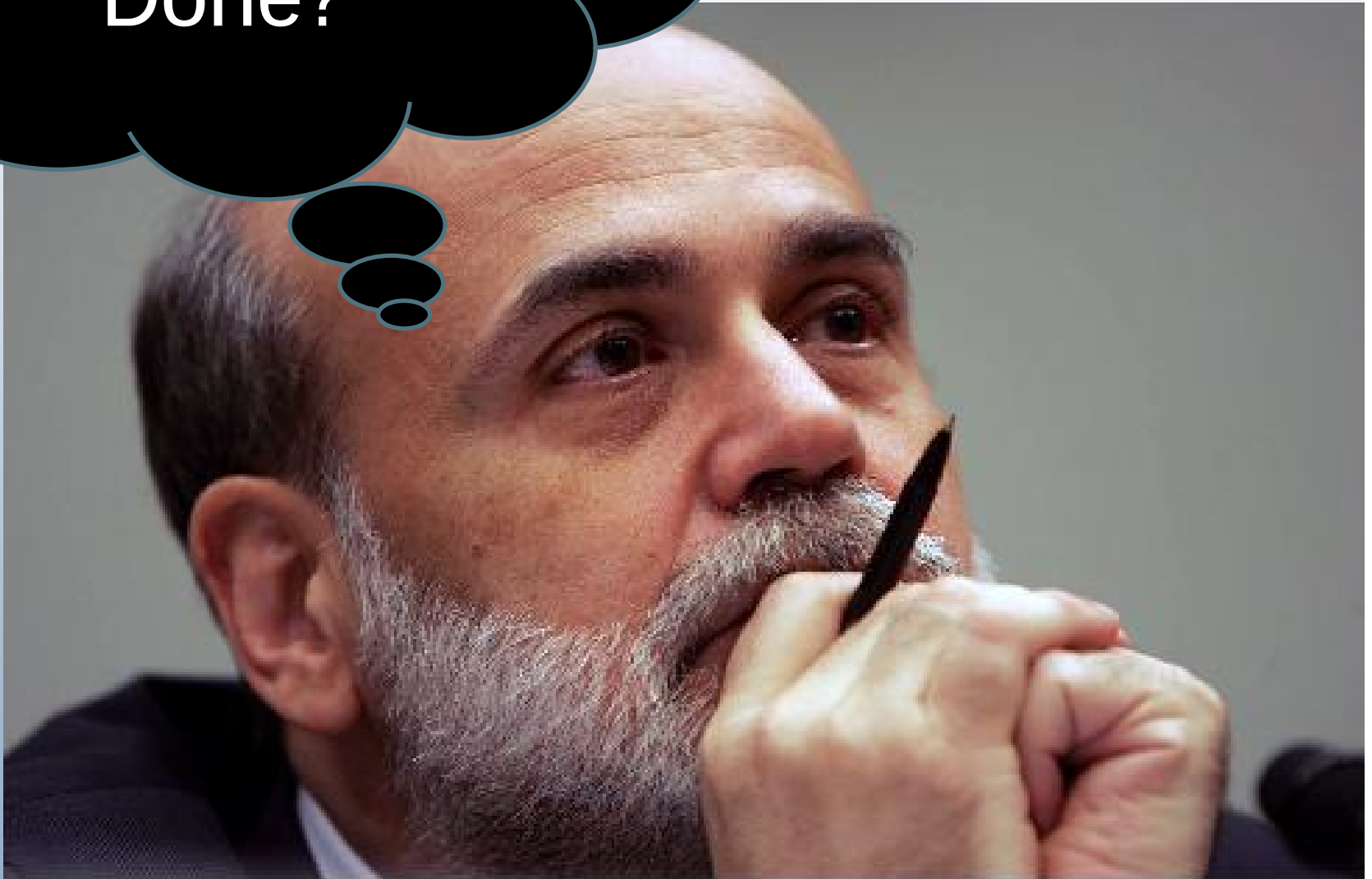
FINANCIAL GLOBALIZATION

Global financial network, 2005



Sources: BIS, IMF, OECD, UNCTAD and Kubelec and Sa (2009).

What Can Be
Done?



MINSKY'S ANALYSIS



- Inherent and fundamental instability in the economy that tends toward a speculative boom
- Concern with agents' behavior during euphoric times
- Processes generating financial fragility are “natural” or endogenous to the system
- Rejection of equilibrium methodology in favor of “periods of tranquility” characterized by a robust financial system and few innovations
- But, **“stability is destabilizing”**
- Financing investment is important source of instability

MINSKY'S TREATMENT OF INVESTMENT FINANCE



- **Internal Funds**
- **External (Borrowed) Funds**
 - **Lender's risk**
 - **Borrower's risk**
- **Financing profiles of firms**
 - **Hedge**
 - **Speculative**
 - **Ponzi**
- **Transitioning from Hedge to Speculative to Ponzi**

Conclusion:

Investment-led growth would transform the financial system to an increasingly fragile one

CAN “It” HAPPEN AGAIN?



- **Big Government**
- **Big Bank**
- **Institutional constraints must adapt to changing circumstances**
- **Anti-Laissez-Faire intervention to prevent invisible hand from operating**

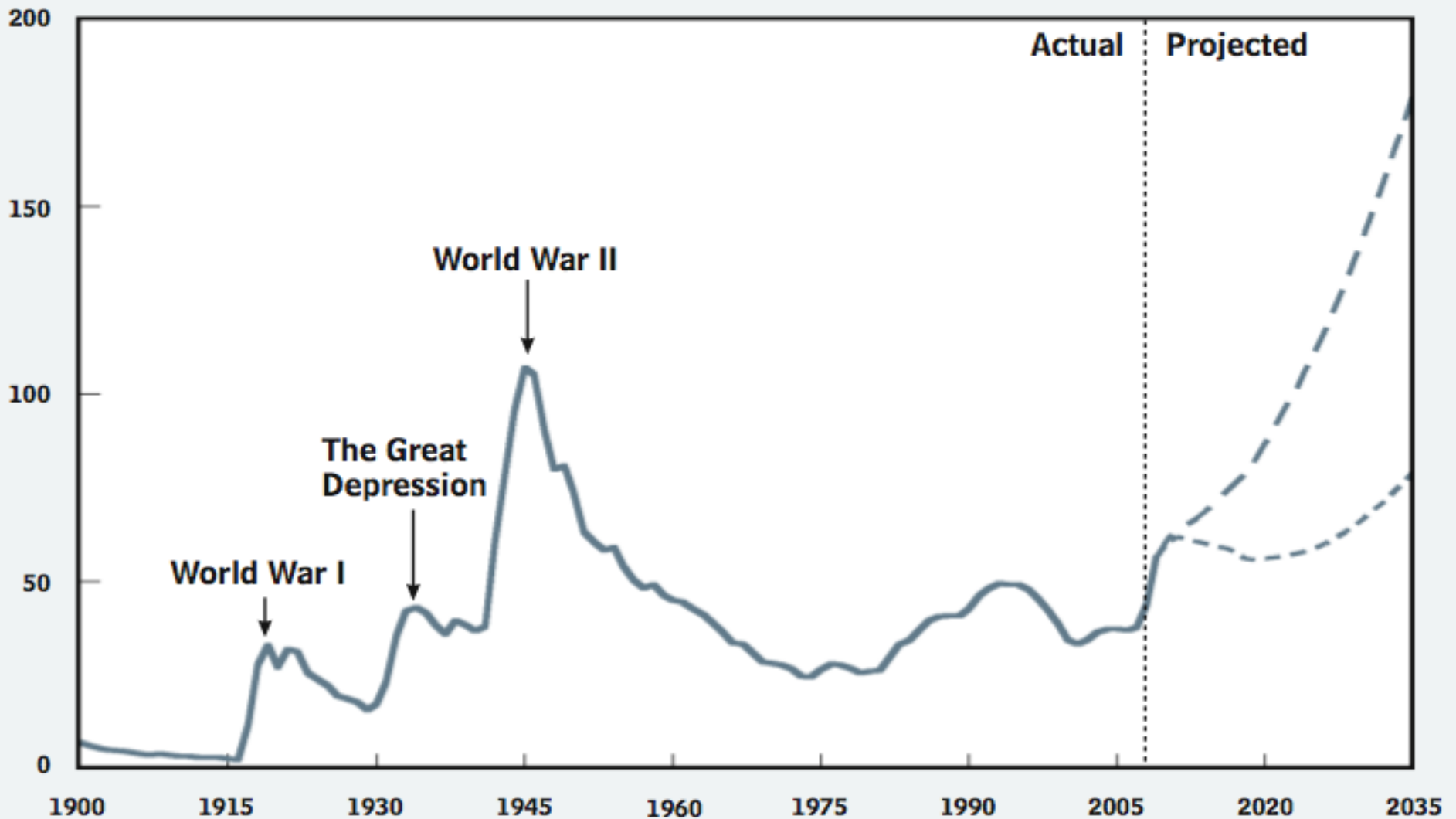
“The aptness of institutions and interventions will largely determine the extent to which the path of the economy through time is tranquil or turbulent: progressive, stagnant or deteriorating” (1994)

BIG GOVERNMENT

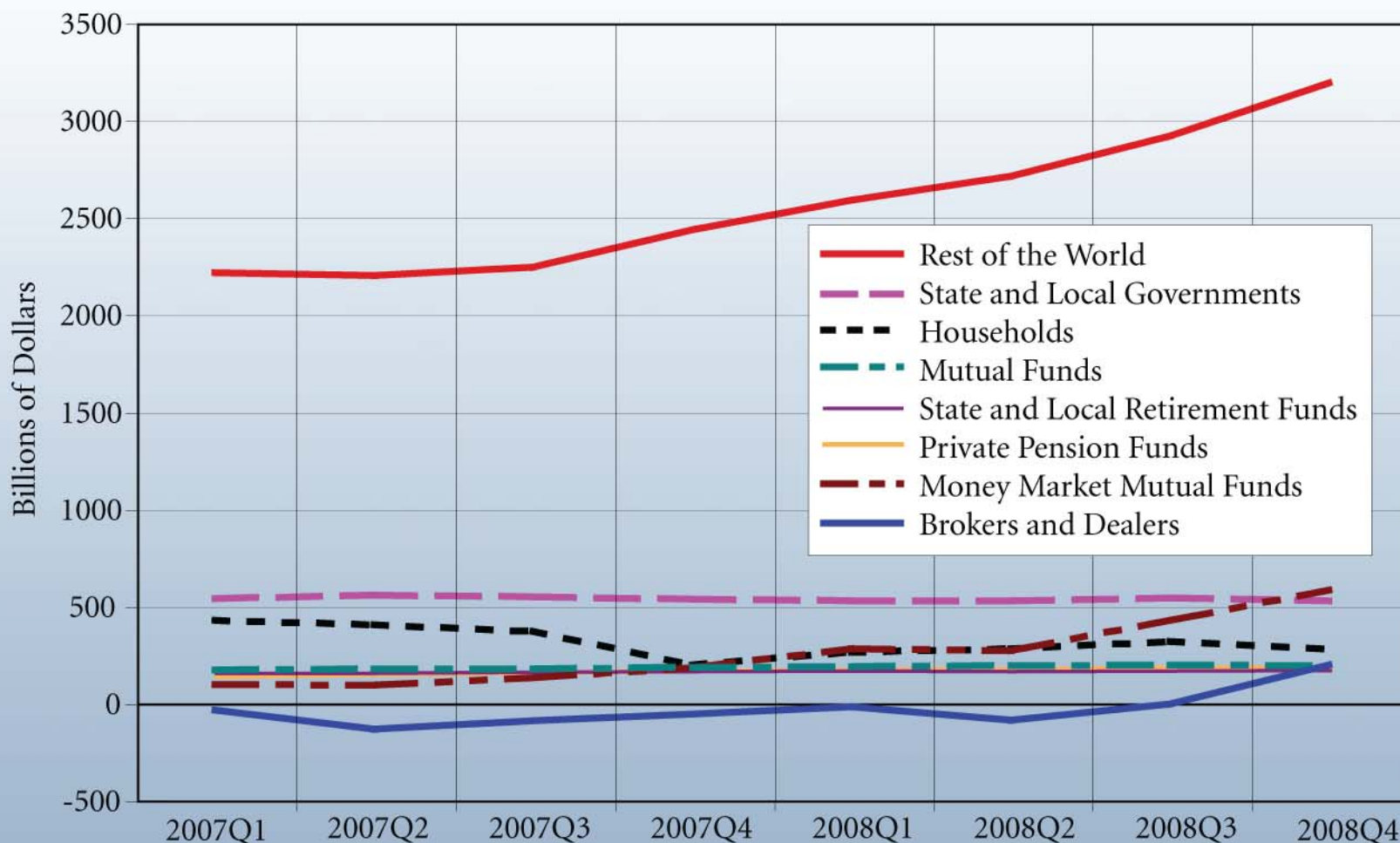
Federal Debt Held by the Public Under CBO's Two Budget Scenarios



Percentage of Gross Domestic Product



Treasury Securities Holdings by Sector

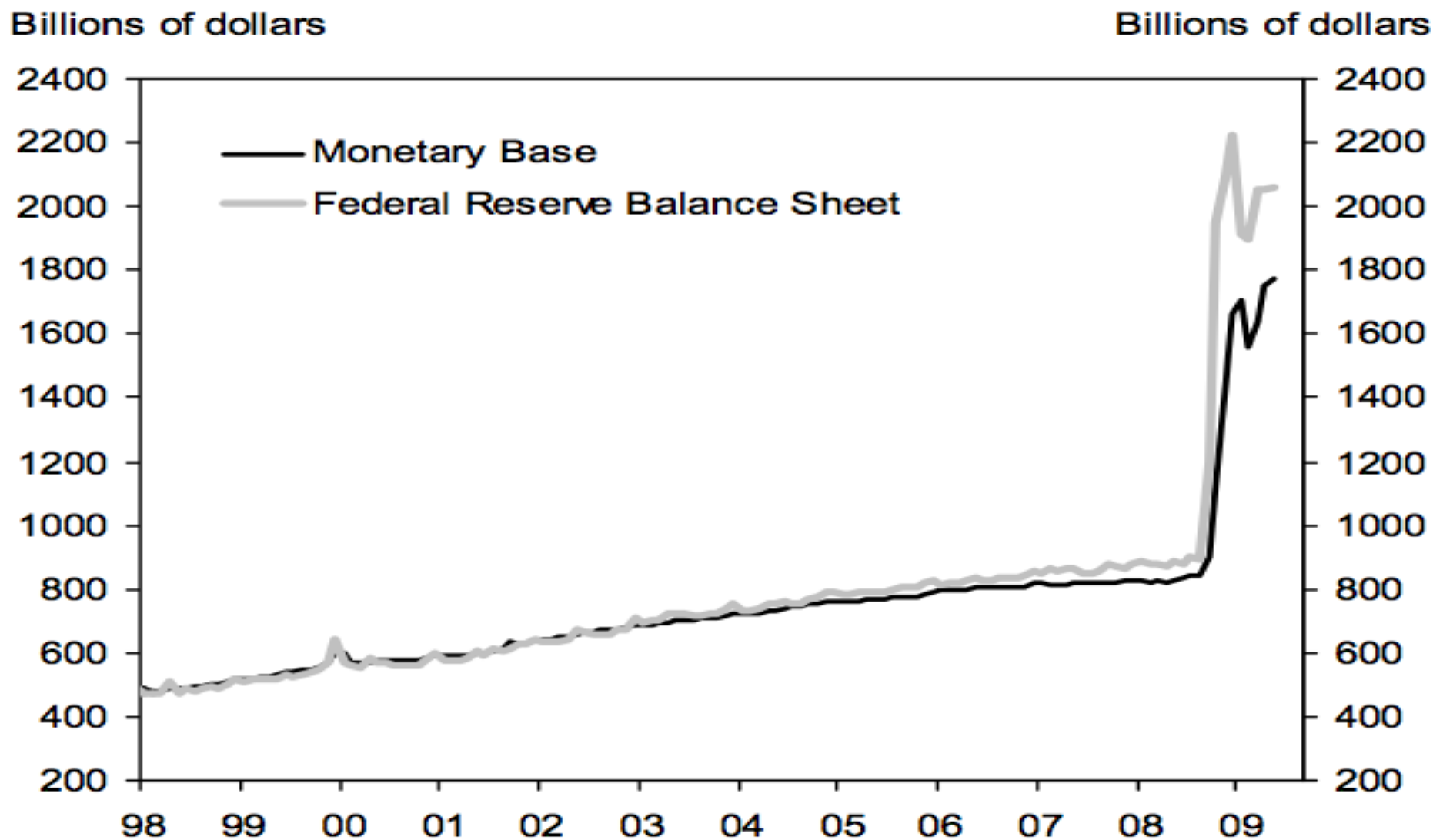


Note: Chart shows all sectors that held more than \$100 billion in Treasury securities as of the fourth quarter in 2008. Data not seasonally adjusted.

Source: Federal Reserve

BIG BANK

An Explosion in the Monetary Base and the Fed's Balance Sheet



Source: Federal Reserve Board.

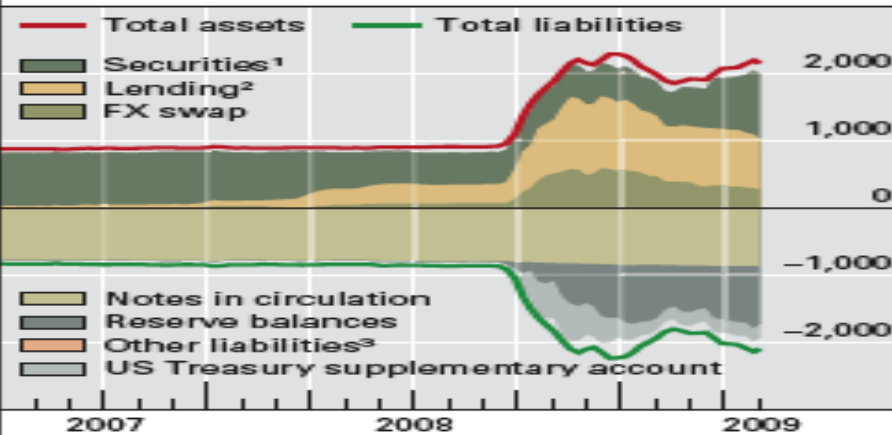
BIG BANKS



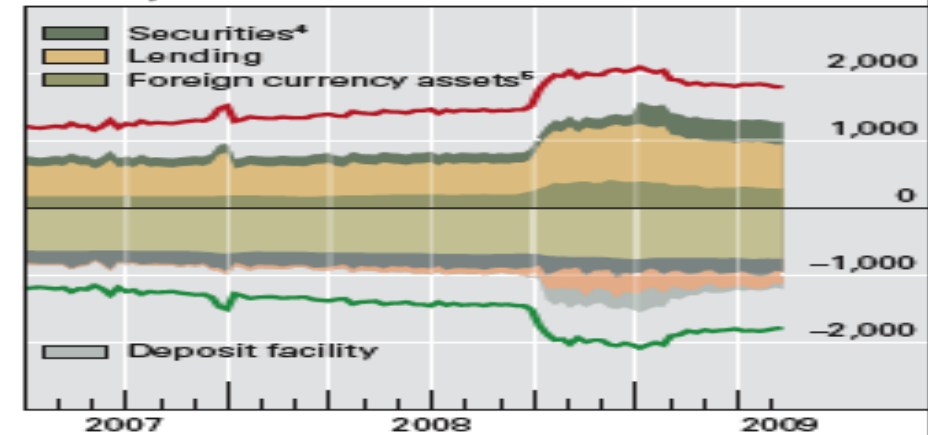
Central bank assets and liabilities

In billions of respective currency units

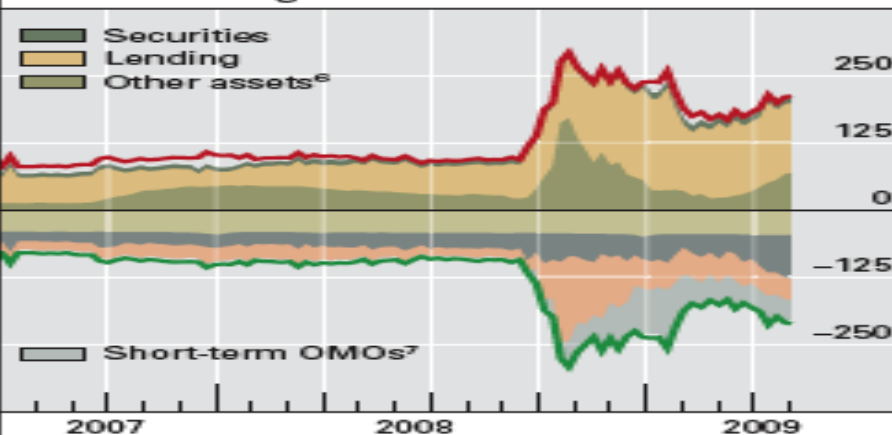
Federal Reserve



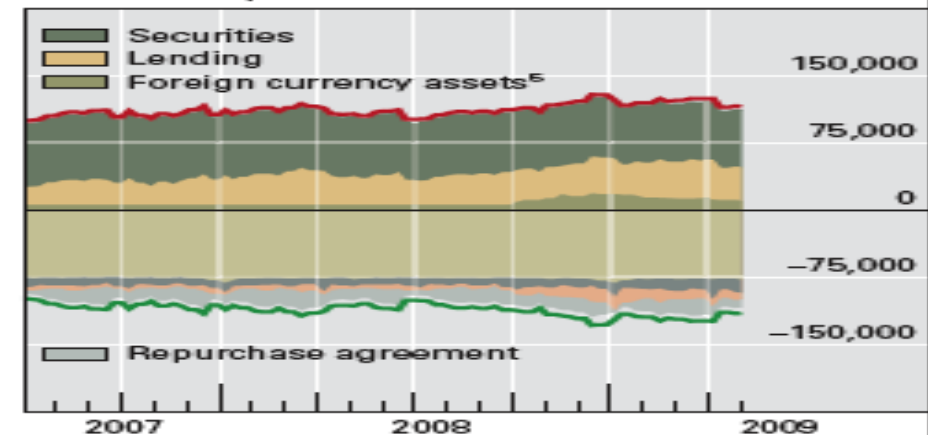
Eurosystem



Bank of England



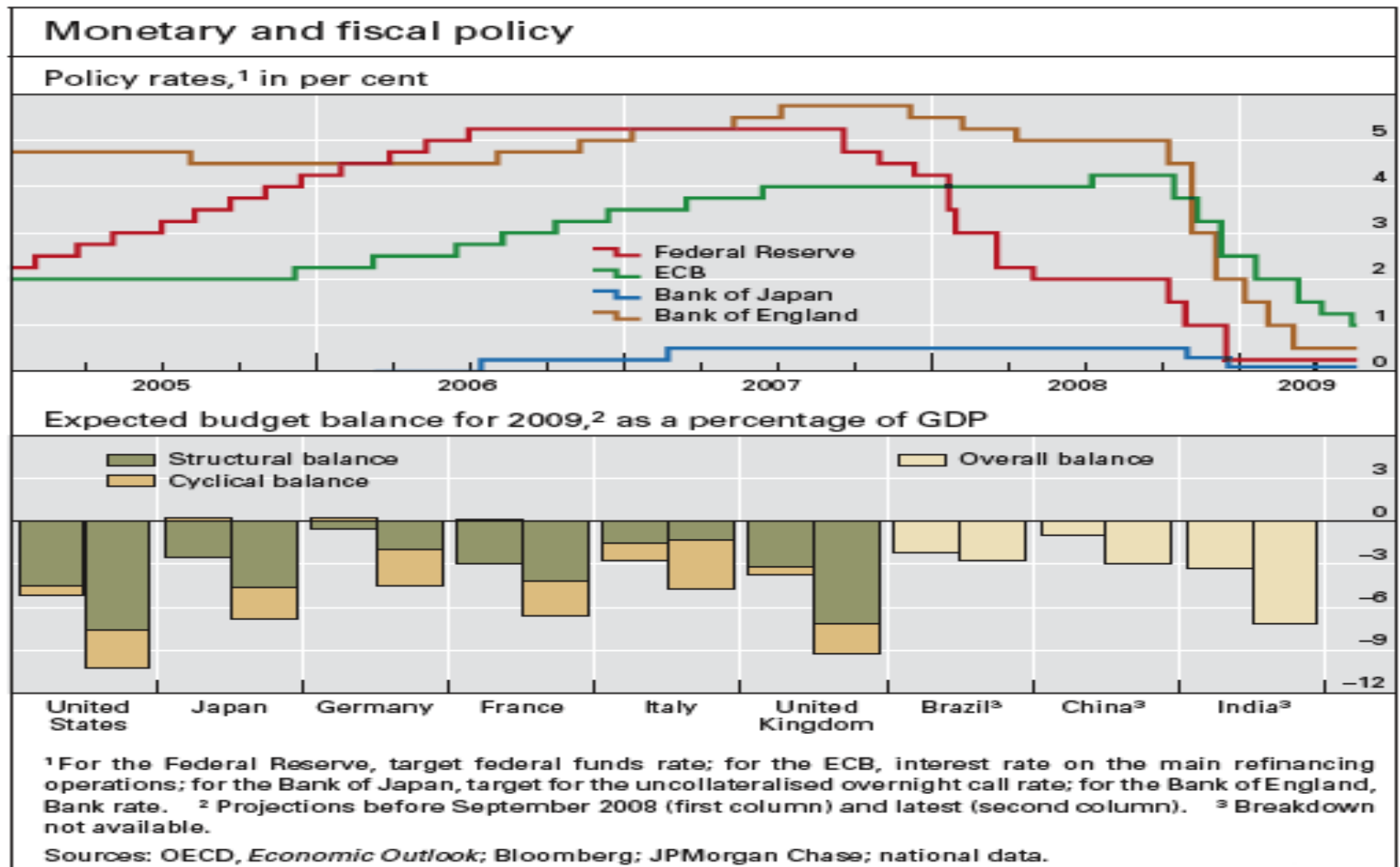
Bank of Japan



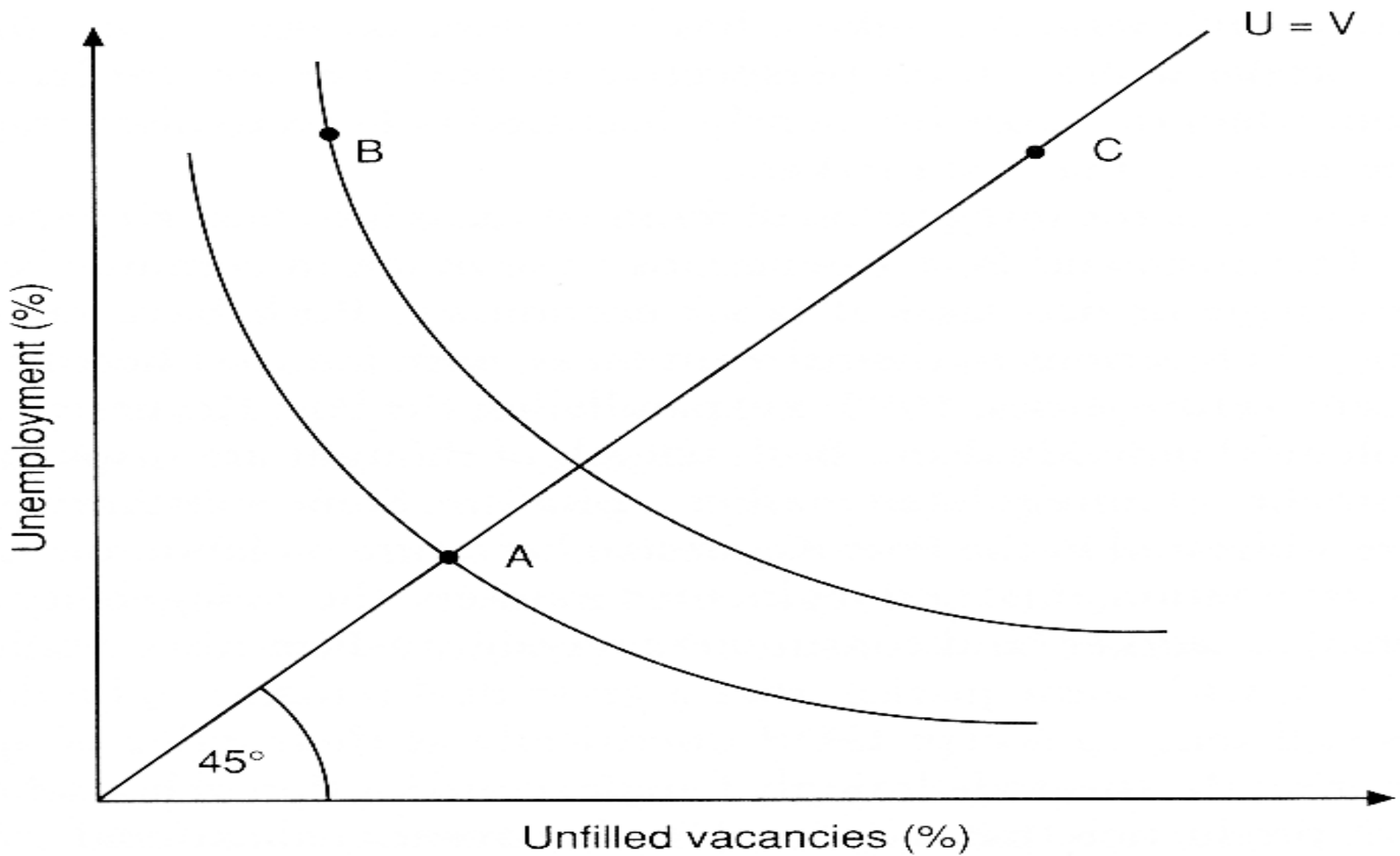
¹ Securities held outright (including TSLF). ² Repurchase agreements, term auction credit, other loans and CPFF. ³ Including to central banks. ⁴ Issued by euro area residents and general government debt in euros.
⁵ Including US dollar liquidity auctions. ⁶ Including US dollar liquidity auctions and asset purchase facility.
⁷ Open market operations, including issuance of Bank of England sterling bills.

Sources: Datastream; national data.

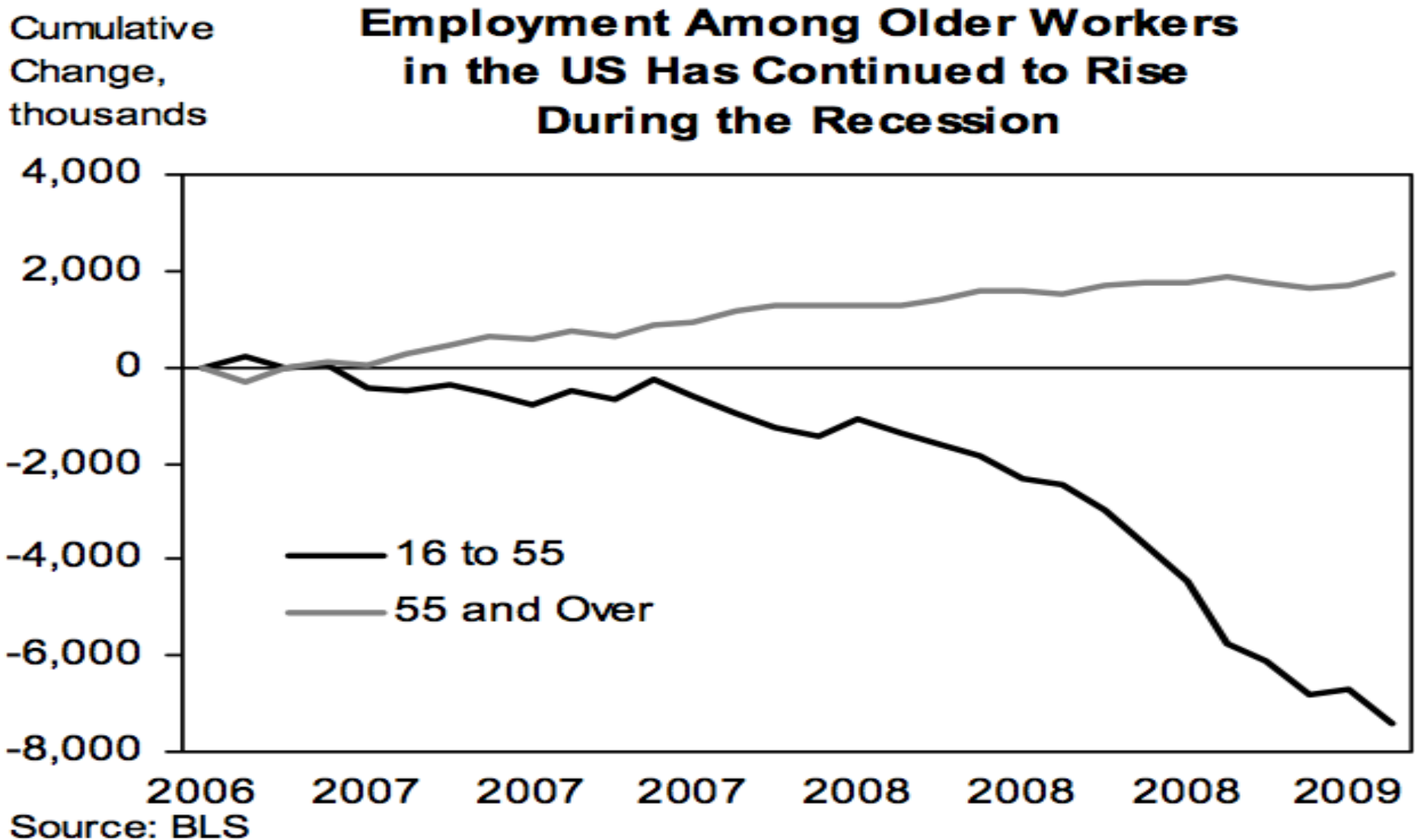
BIG BANK & BIG GOVERNMENT



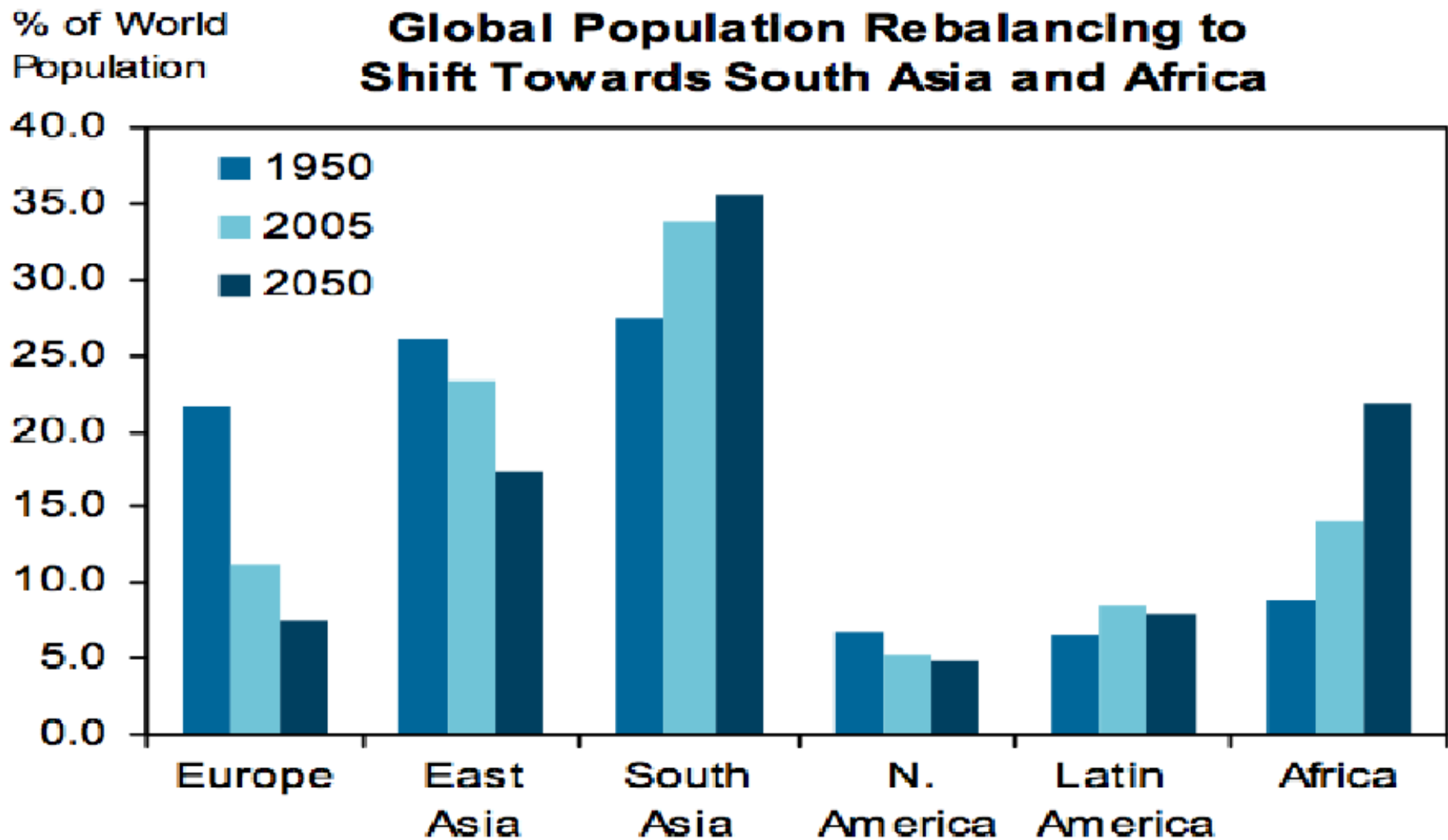
Beveridge Curves for Labor



CHANGING PATTERN OF EMPLOYMENT



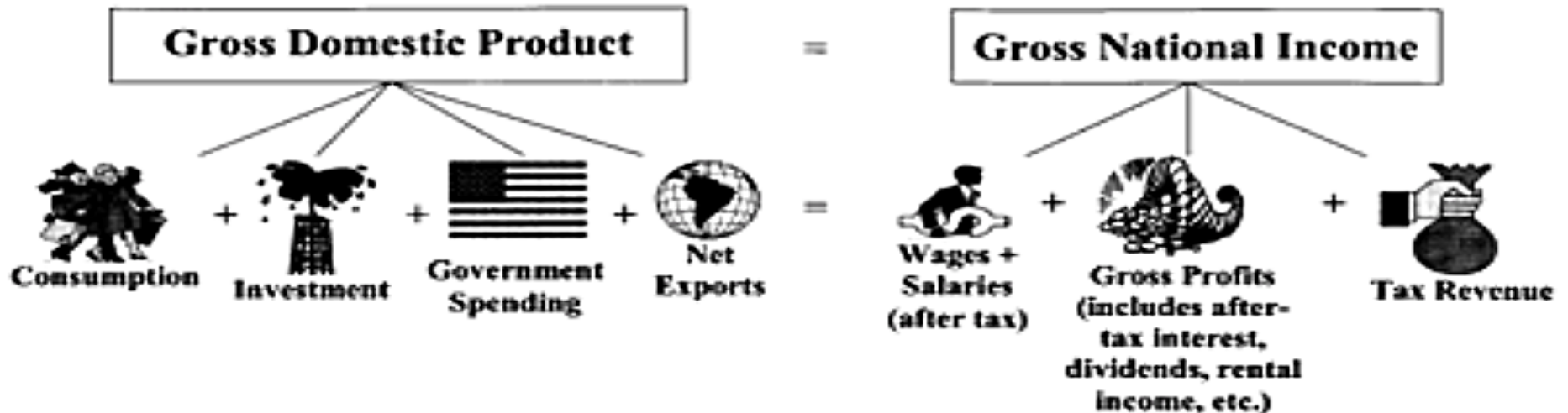
CHANGING PATTERNS OF GLOBAL LABOR FORCE



Source: UN Population Database (2008 Revision)

STRUCTURE OF AN OPEN ECONOMY

We begin with the simplest national identity:



After some manipulation, we obtain:

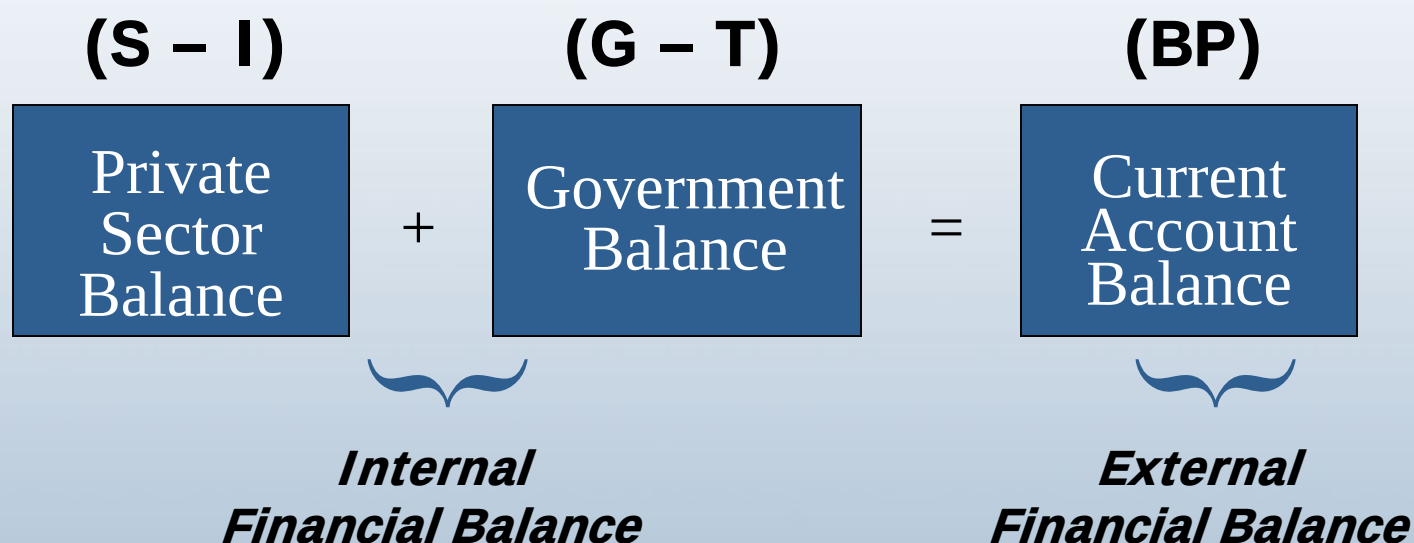
$$\text{Gross Profits} = \text{Investment} + \left[\text{Government Spending} - \text{Tax Revenue} \right] + \text{Net Exports} + \left[\text{Consumption} - \text{Wages} \right]$$

Which can be reduced to the fundamental profits equation:

$$\text{Gross Profits} = \text{Investment} + \text{Government Deficit (+) or Surplus (-)} + \text{Net Exports} - \text{Saving*}$$

* More technically, this term is saving out of wages less consumption out of profit income.

Accounting Identity of Financial Balances



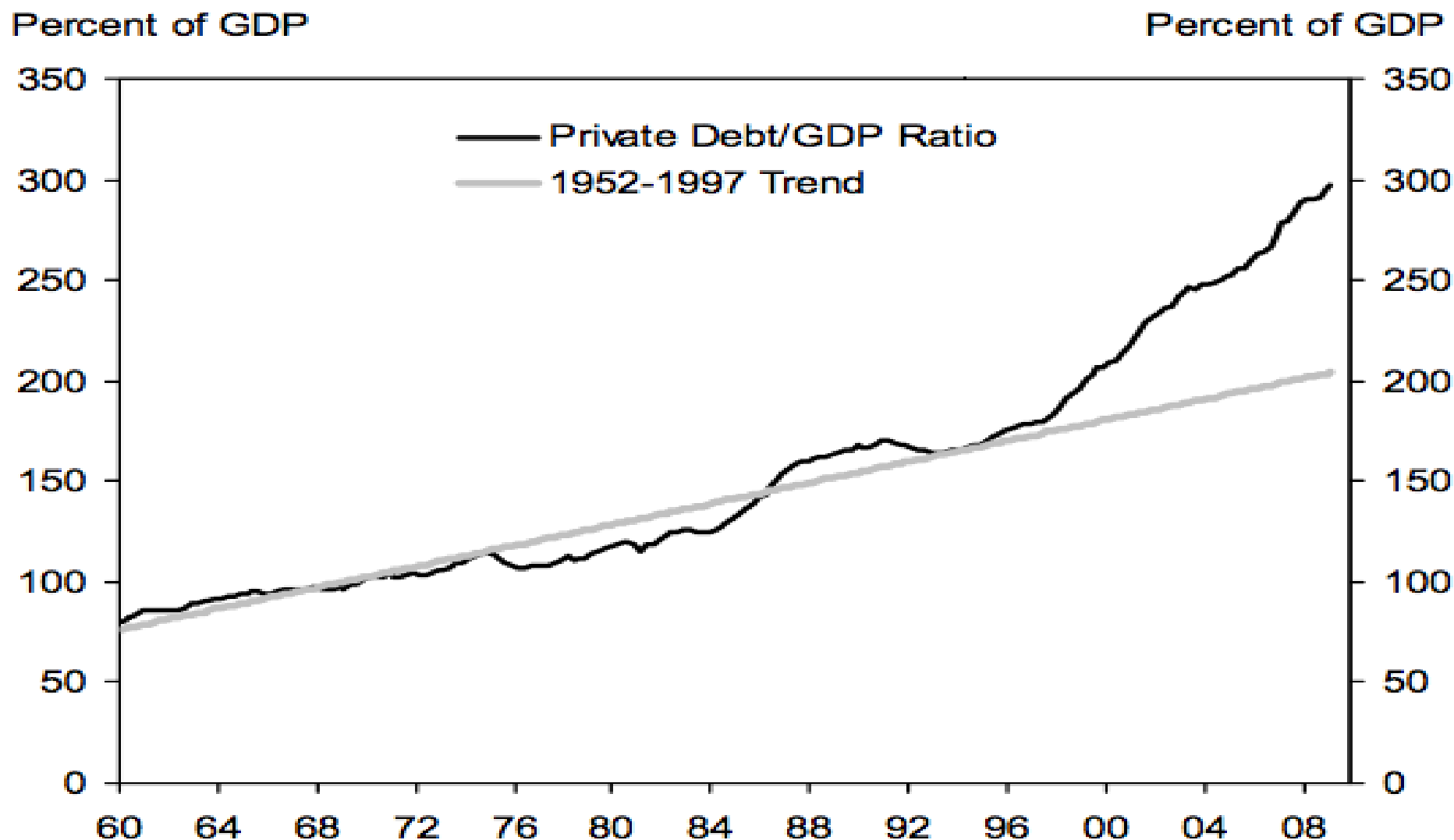
In 2008 the identity was roughly like this:

1.1 % of GDP - 4.6 % of GDP = -3.5 % of GDP

First quarter 2009 the identity was roughly like this:

5.6 % of GDP - 7.6 % of GDP = -2.1 % of GDP

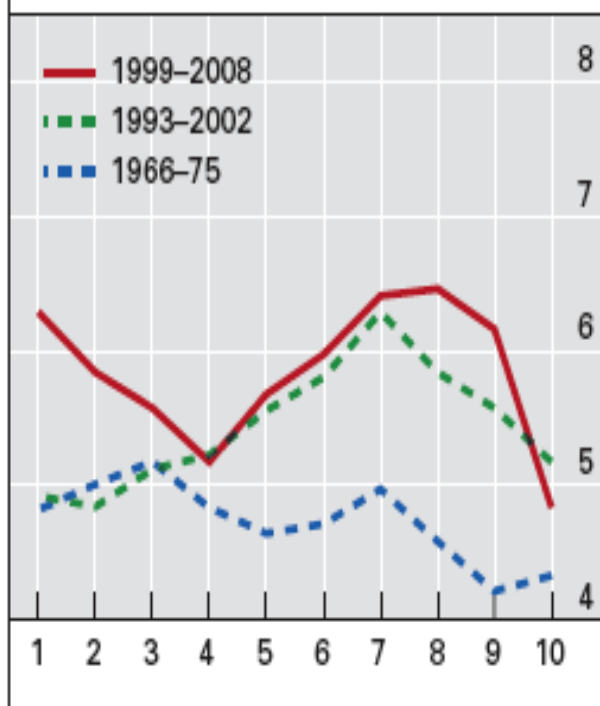
Private Sector (Household and Corporate) Debt Is Sky-High



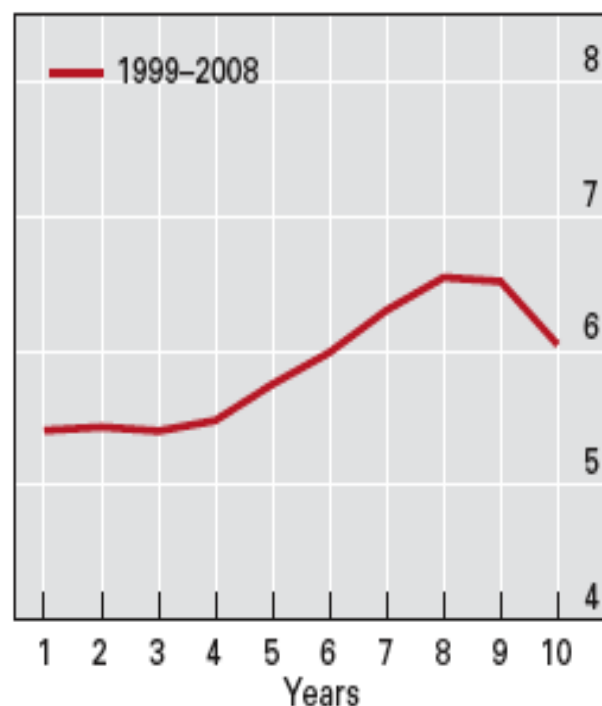
Source: Federal Reserve Board. Department of Commerce.

Household net wealth as a ratio of disposable income

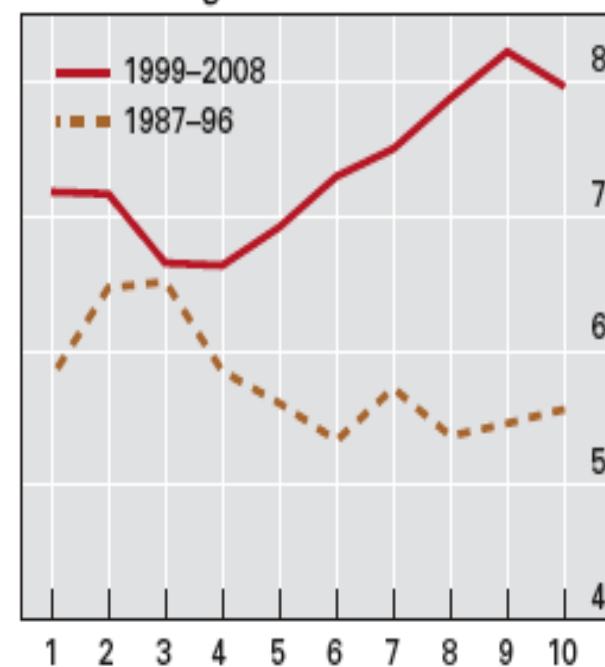
United States



Euro area¹



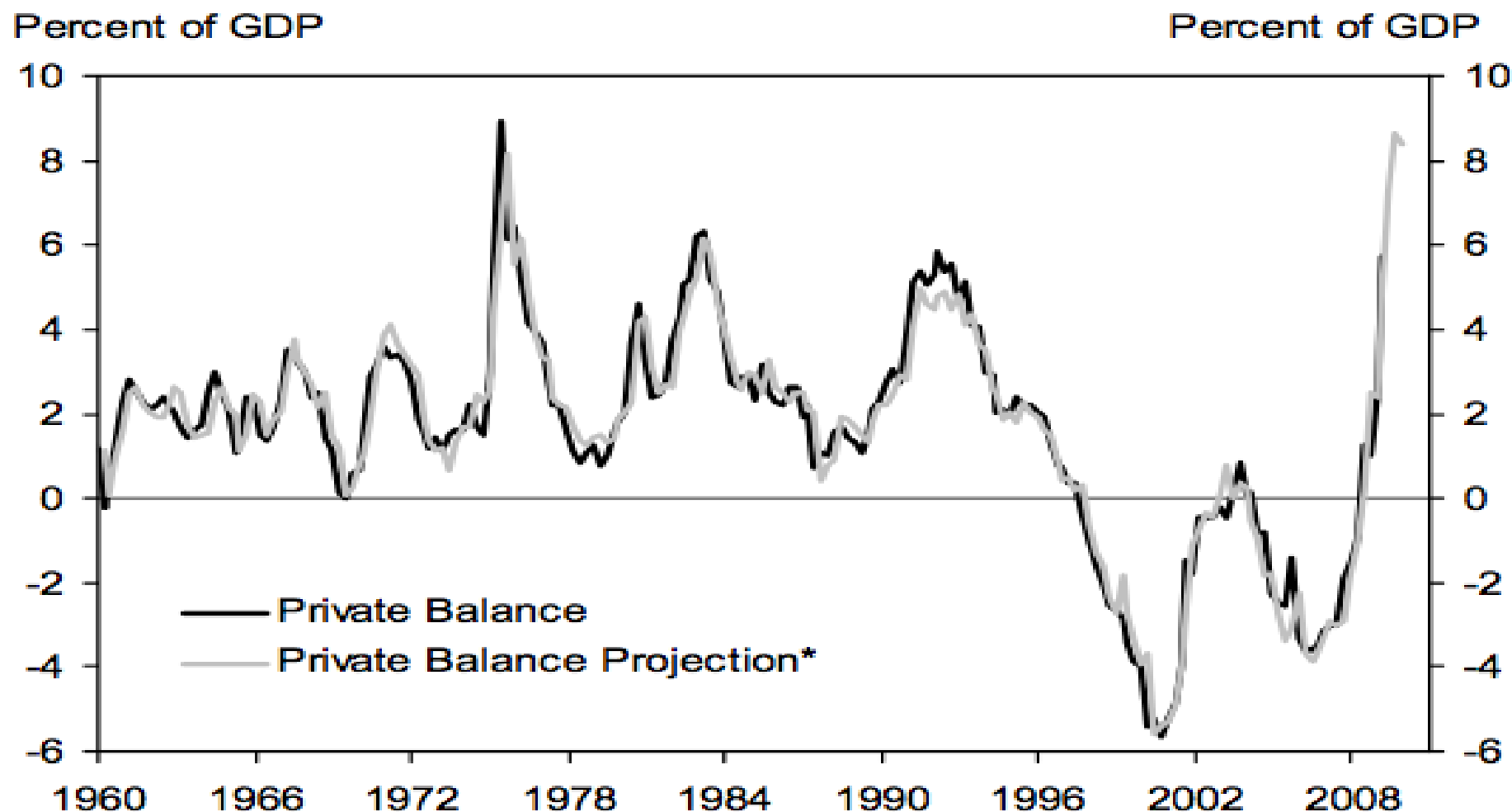
United Kingdom²



¹ Estimates of 2008 net wealth based on changes in net worth (excluding revaluation of residential property). ² Estimates of 2008 net wealth based on changes in net worth due to gross saving and capital transfers.

Sources: ECB; Federal Reserve flow of funds accounts; Datastream; UK Office for National Statistics; national data.

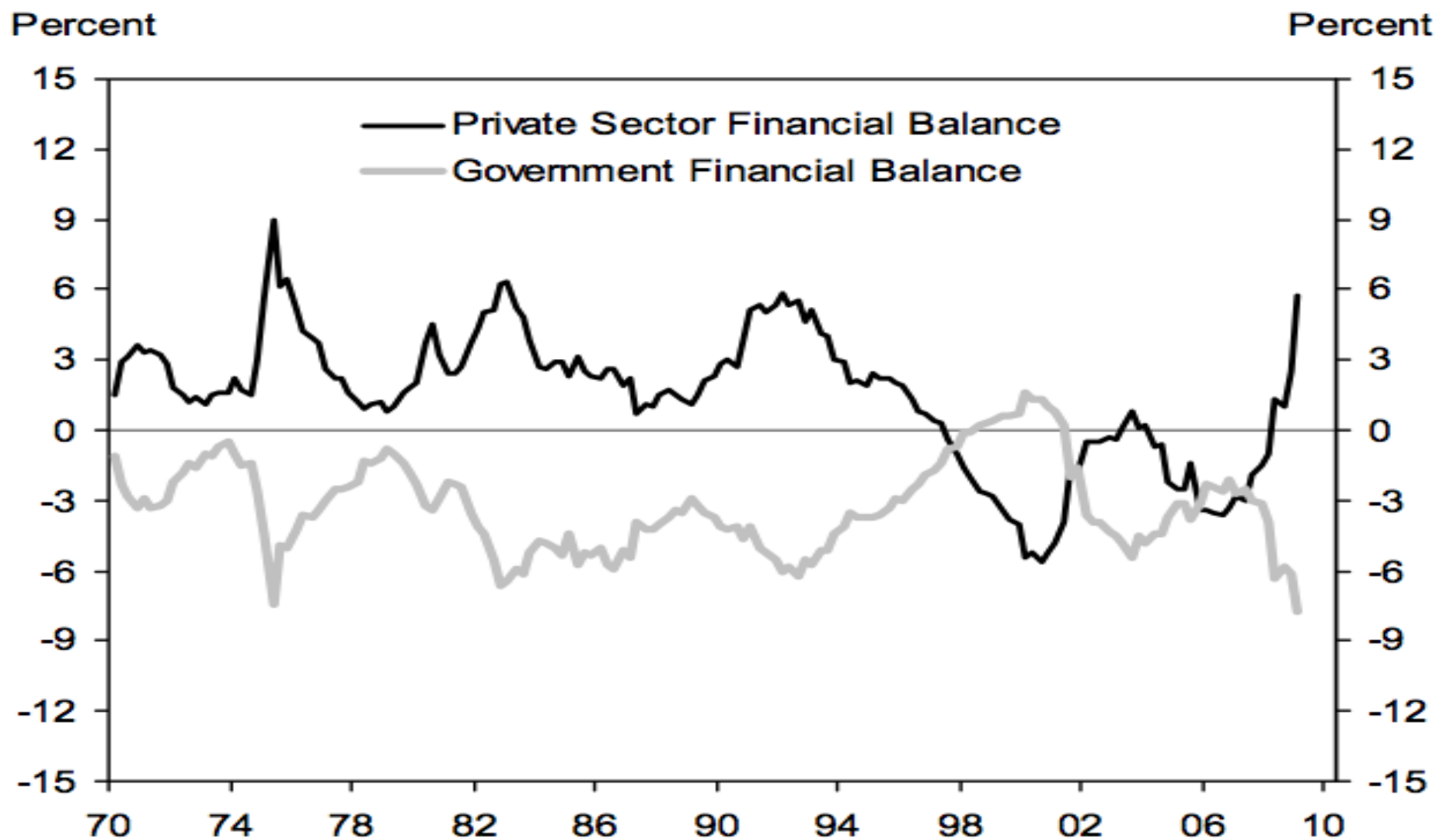
The Private Sector Continues to Retrench



* Projection assuming current values for equity wealth/GDP ratio and credit spreads, and a further 10% home price decline.

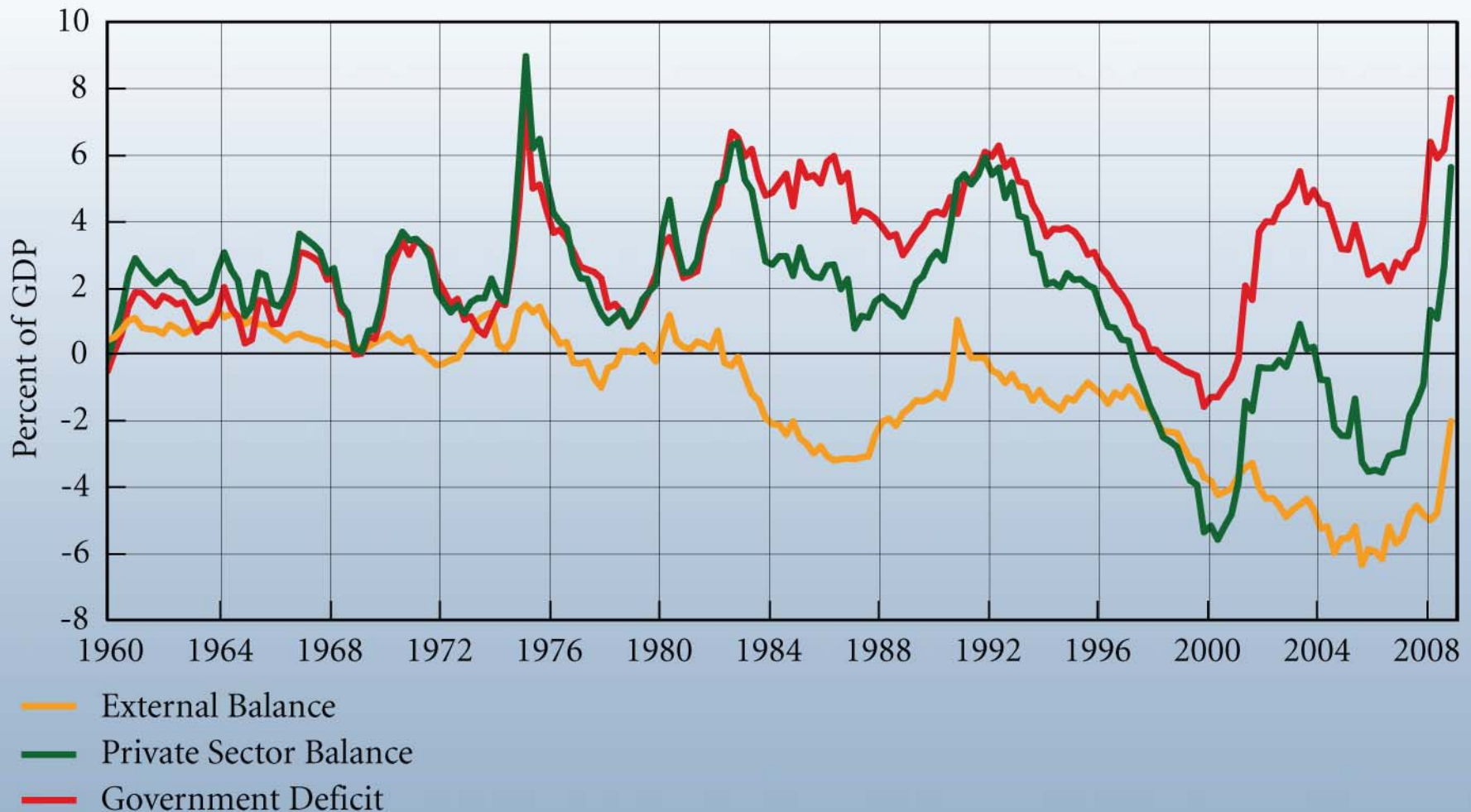
Source: Federal Reserve Board.

Private Sector Surplus Offsets Public Sector Deficit



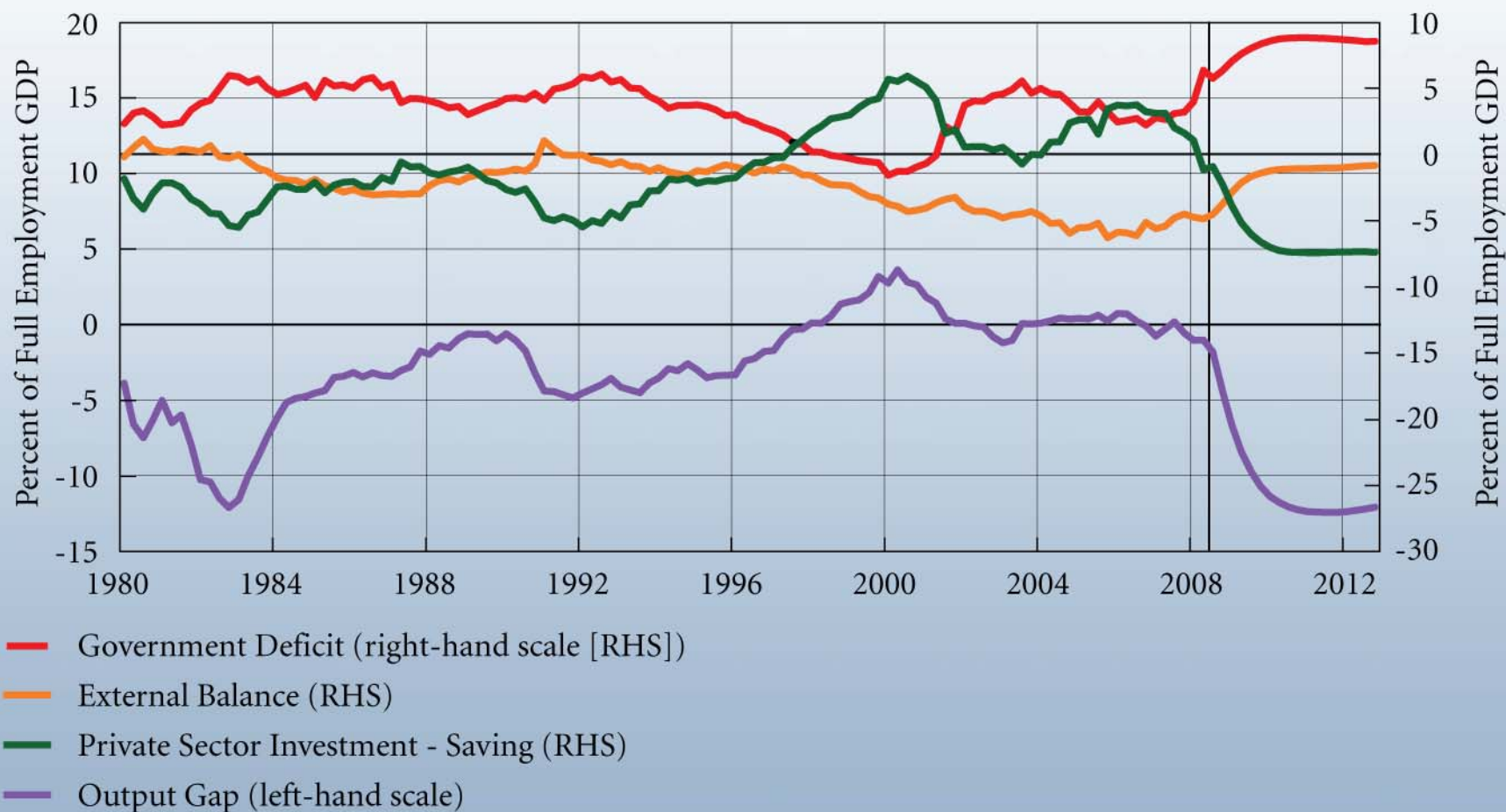
Source: Department of Commerce. Our calculations.

U.S. Main Sector Balances



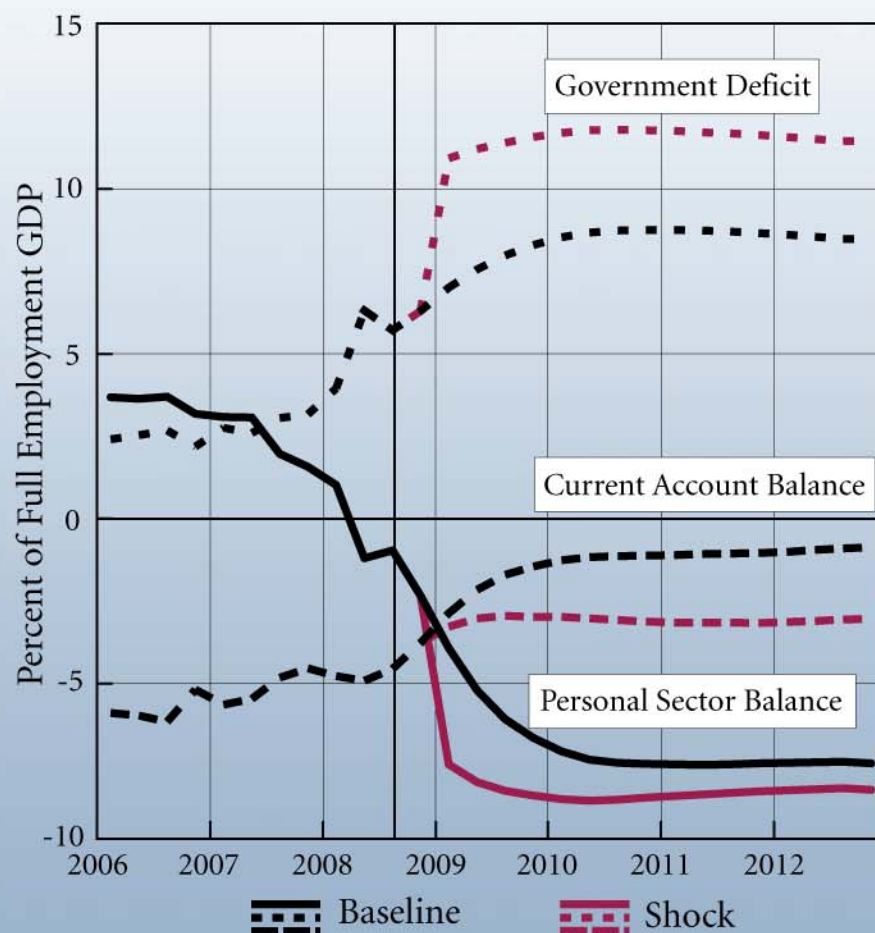
Sources: BEA, National Income and Product Accounts (NIPA), and authors' calculations

Main Sector Balances and Output Gap

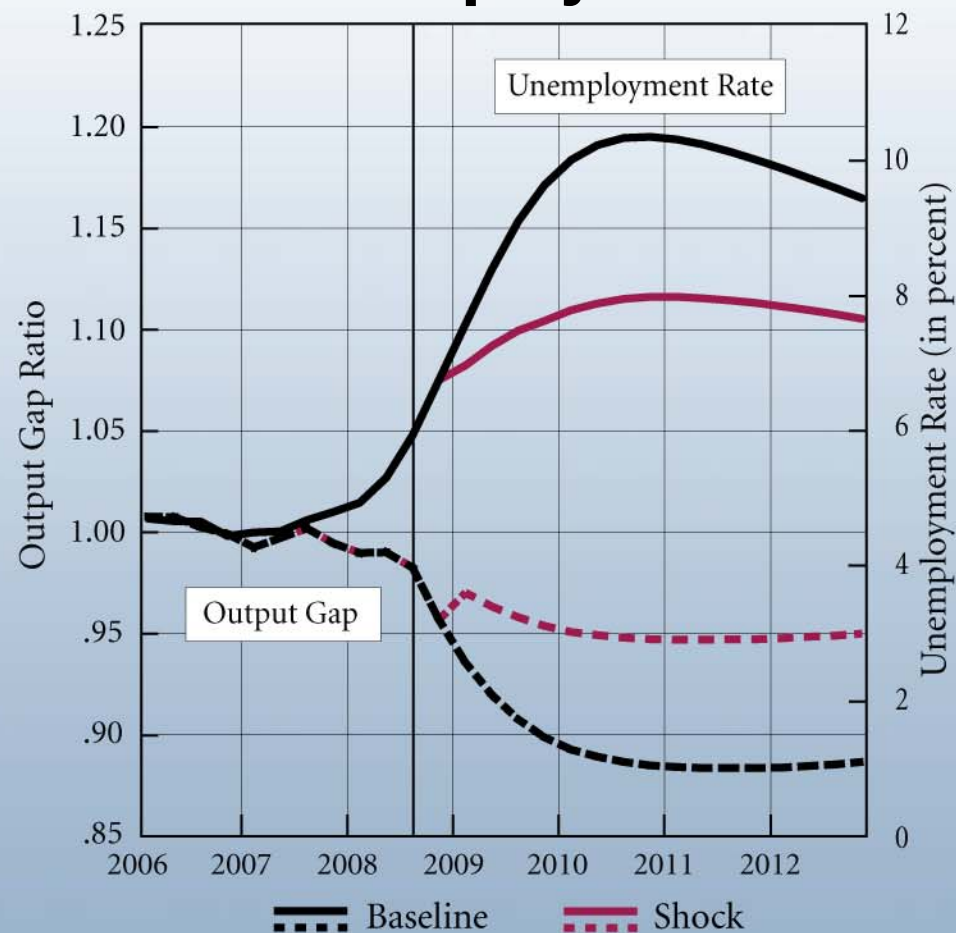


Sources: Federal Reserve and authors' calculations

U.S. Main Sector Balances



Output Gap and Unemployment

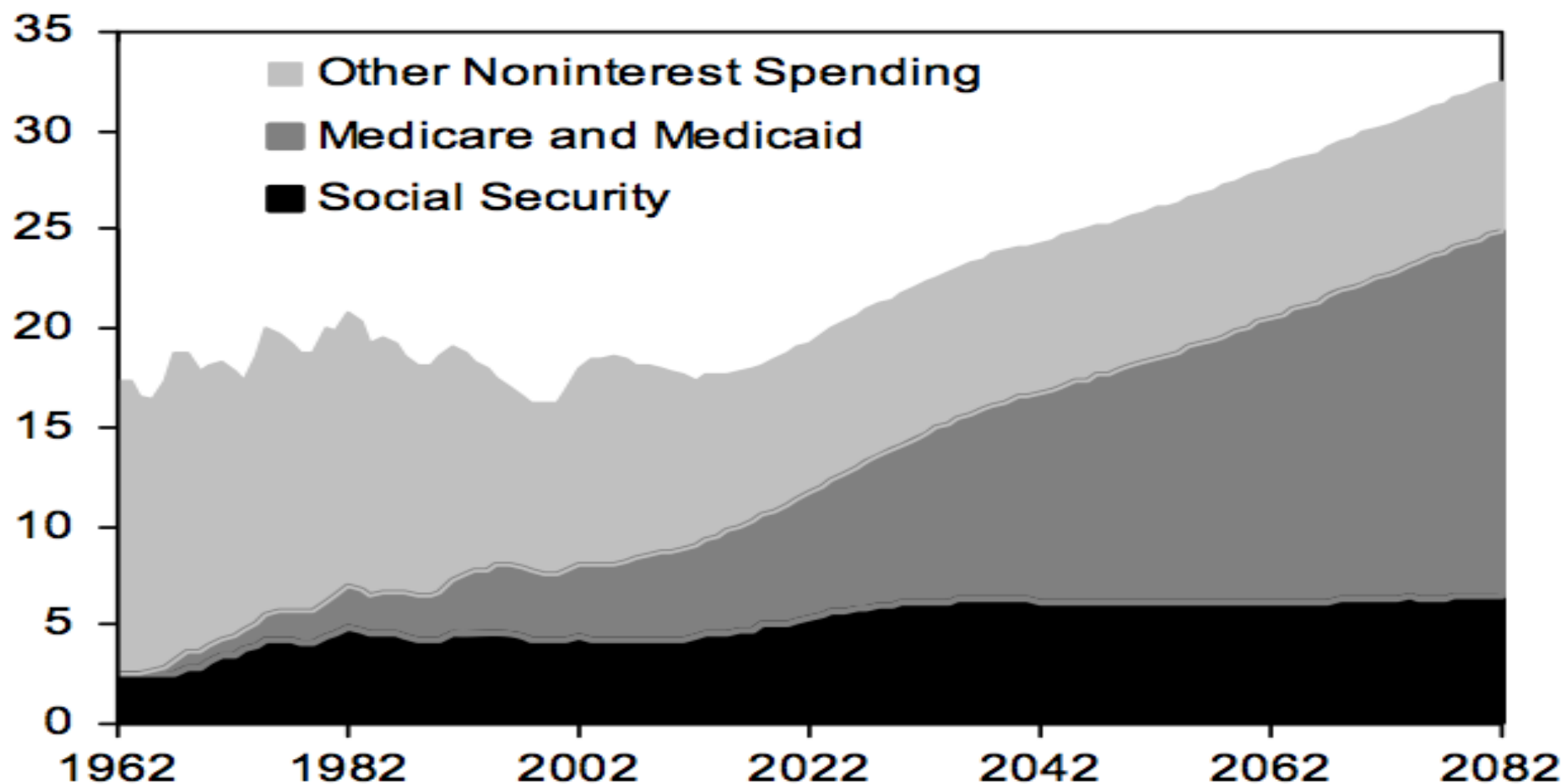


Sources: Federal Reserve and authors' calculations



% of
GDP

Ageing Will Play Only A Minor Role in Entitlement Growth



Source: CBO