

State of the Global Economy

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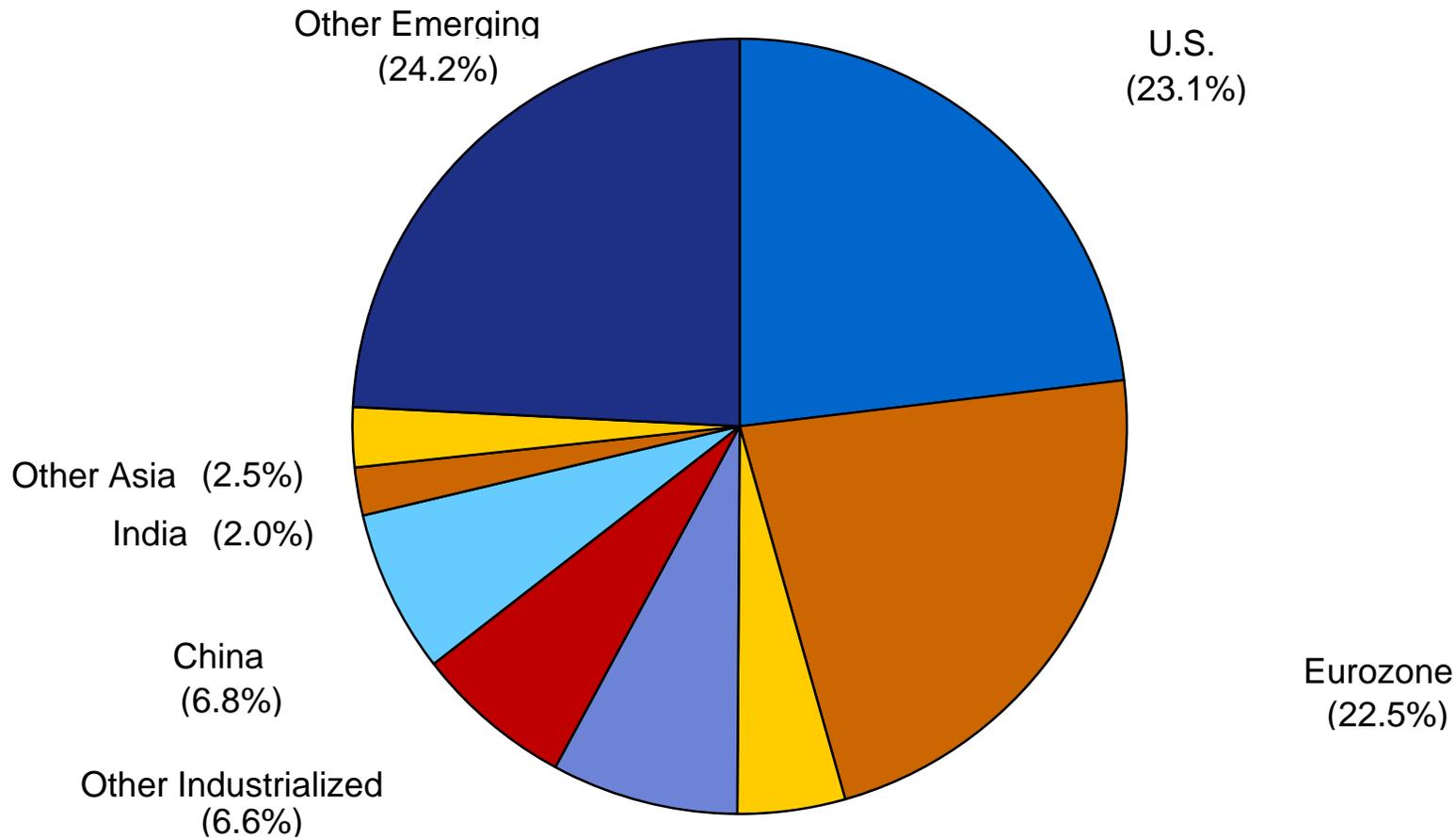
Global Economic Recession

- **Economic contraction began in US and spread internationally**
- **Financial crisis, loss of confidence and risk adversity**
- **Global demand and international trade are falling**
- **Industrialized nations: falling demand and exports**
- **Emerging nations adversely affected by industrialized nations' recession, lower oil and commodity prices**
- **Global output now declining**

Global Potential Growth Remains Healthy

- Little aggregate impact on long-run global potential
- But emerging nations' shares of global growth and output rise even more
- Critical issues: necessary adjustments for recovery
 - Turnaround in global demand
 - Private sector : adjustments in production, employment, trade, etc.
 - Financial market : asset prices, interest rates, exchange rates, etc.
 - Government policies
 - These are unfolding rapidly in the US
- Dramatic shifts in expectations, risk preferences will redefine economic and financial behavior
- Enhanced roles of government and international government organizations

Shares of Global Output in 2008



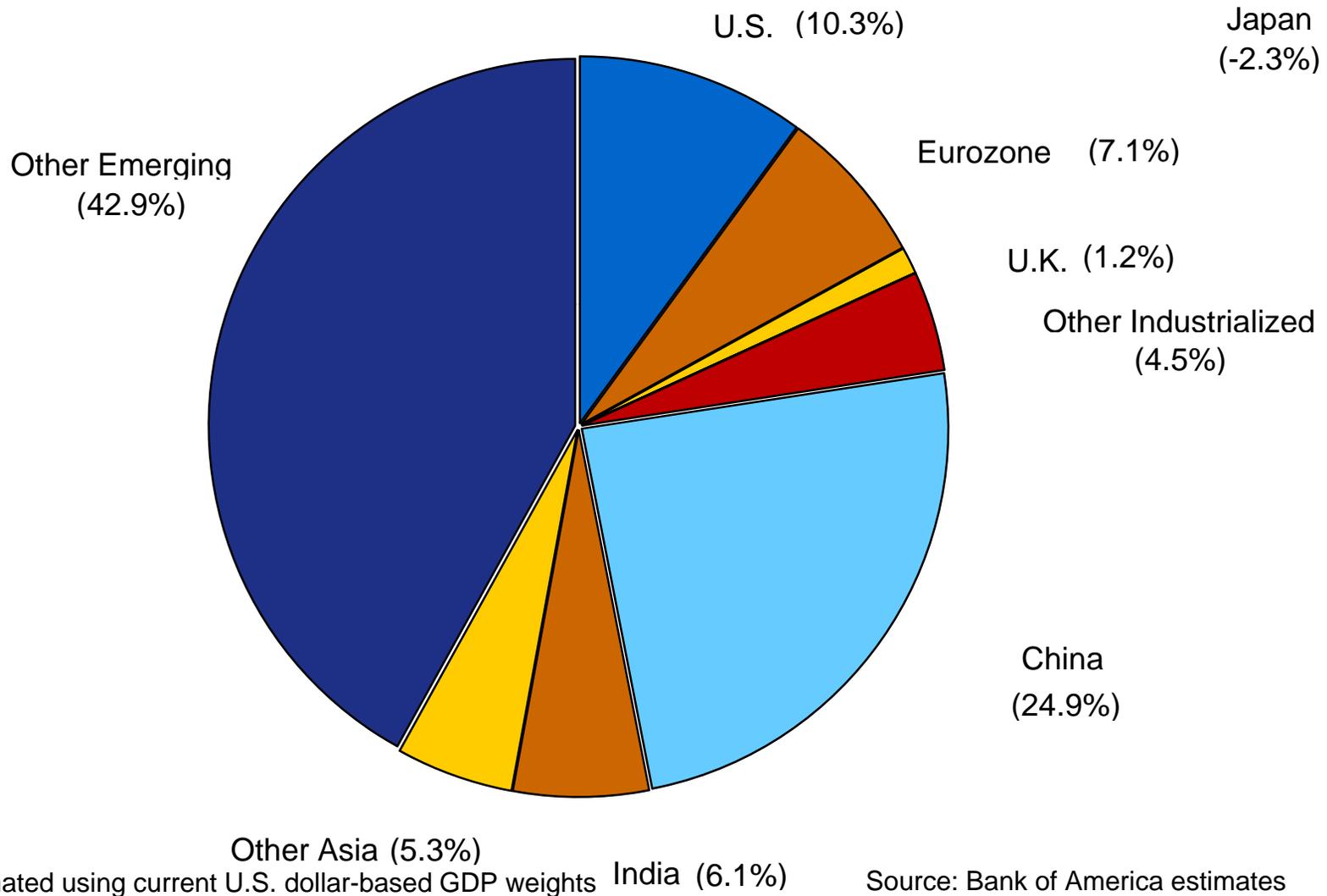
Source: Bank of America estimates

Japan (7.8%)

U.K. (4.5%)

Note: Estimated using current U.S. dollar-based GDP weights

Contributions to Global Growth in 2008



Note: Estimated using current U.S. dollar-based GDP weights

Source: Bank of America estimates



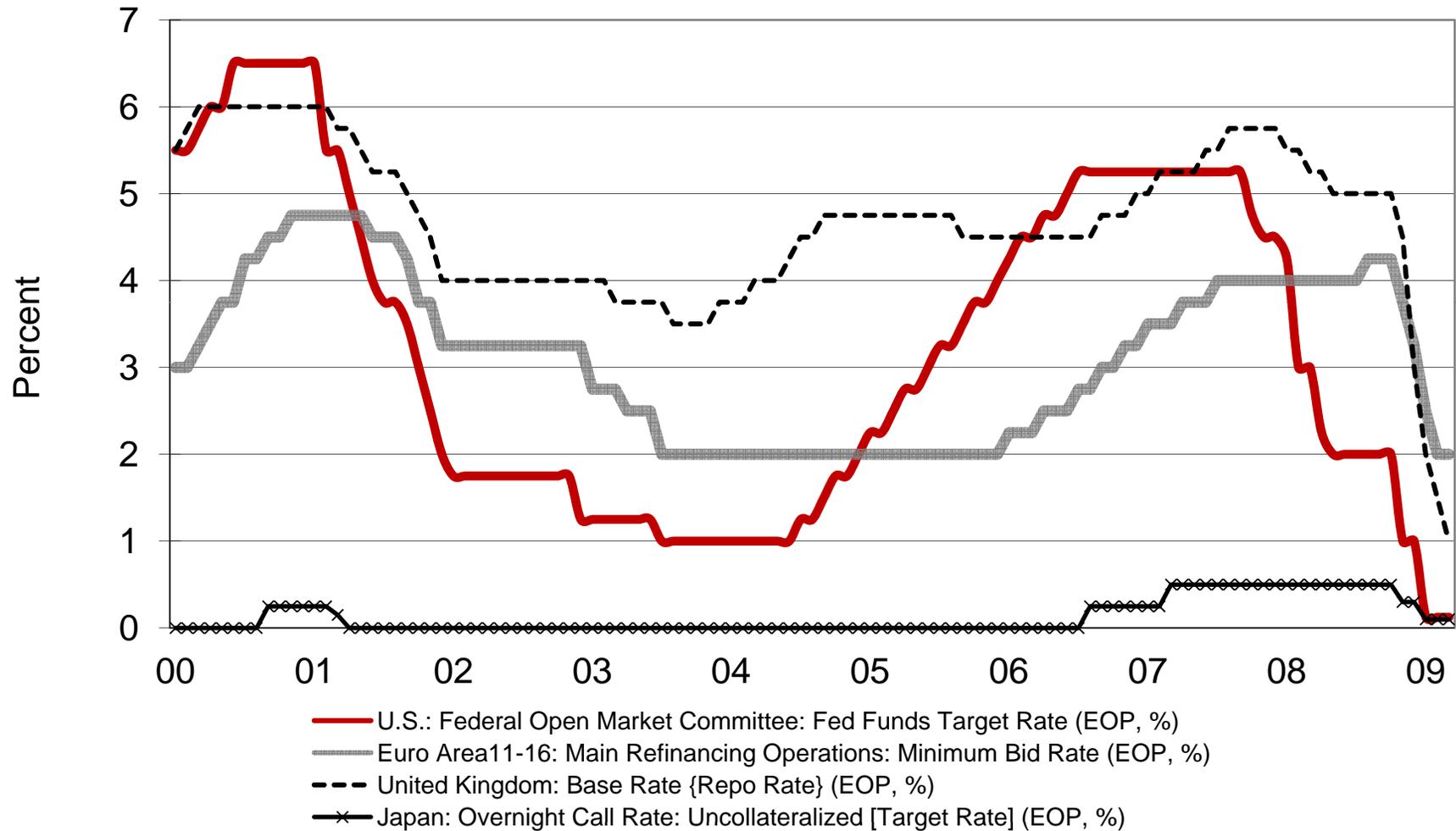
Global Economy Contracts

- **Sharpest declines in economic activity are occurring now**
 - In 2008Q4, real GDP qtr/qtr annualized declined 12% in Japan, 5.7% in Eurozone, 6% in UK and 6.3% in US
 - In 2009Q1: lessening pace of decline
- **Dramatic decline in China's exports**
 - Large impact on Asian and European exports
- **Sizable reductions in global production, employment, trade**
- **In 2009H1: lessening pace of contraction**
- **US will lead global rebound**
 - Real GDP to rise in 2009H2

Global Financial Trends

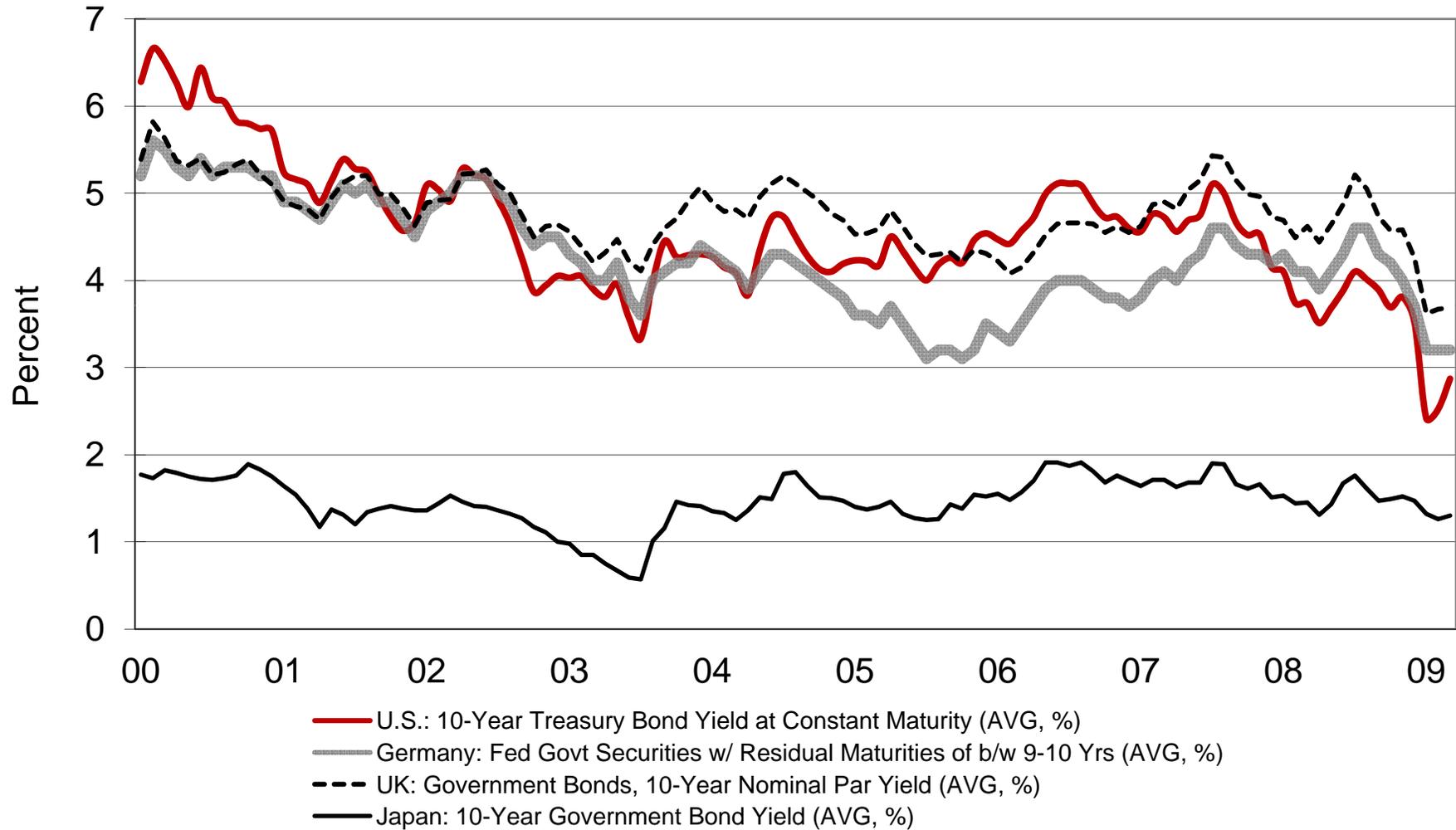
- **Aggressive central bank easing**
 - Policy rates approach zero nominal bound
- **Government bond yields fall, reflecting**
 - Lower real rates
 - Lower inflationary expectations
 - Selective flight to quality risk aversion
 - US dollar weakens in response to US troubles, Fed's quantitative easing
- **Asset prices plummet, reflecting radical shifts in expectations about economic performance, profits and cash flows**

Global Central Bank Interest rates



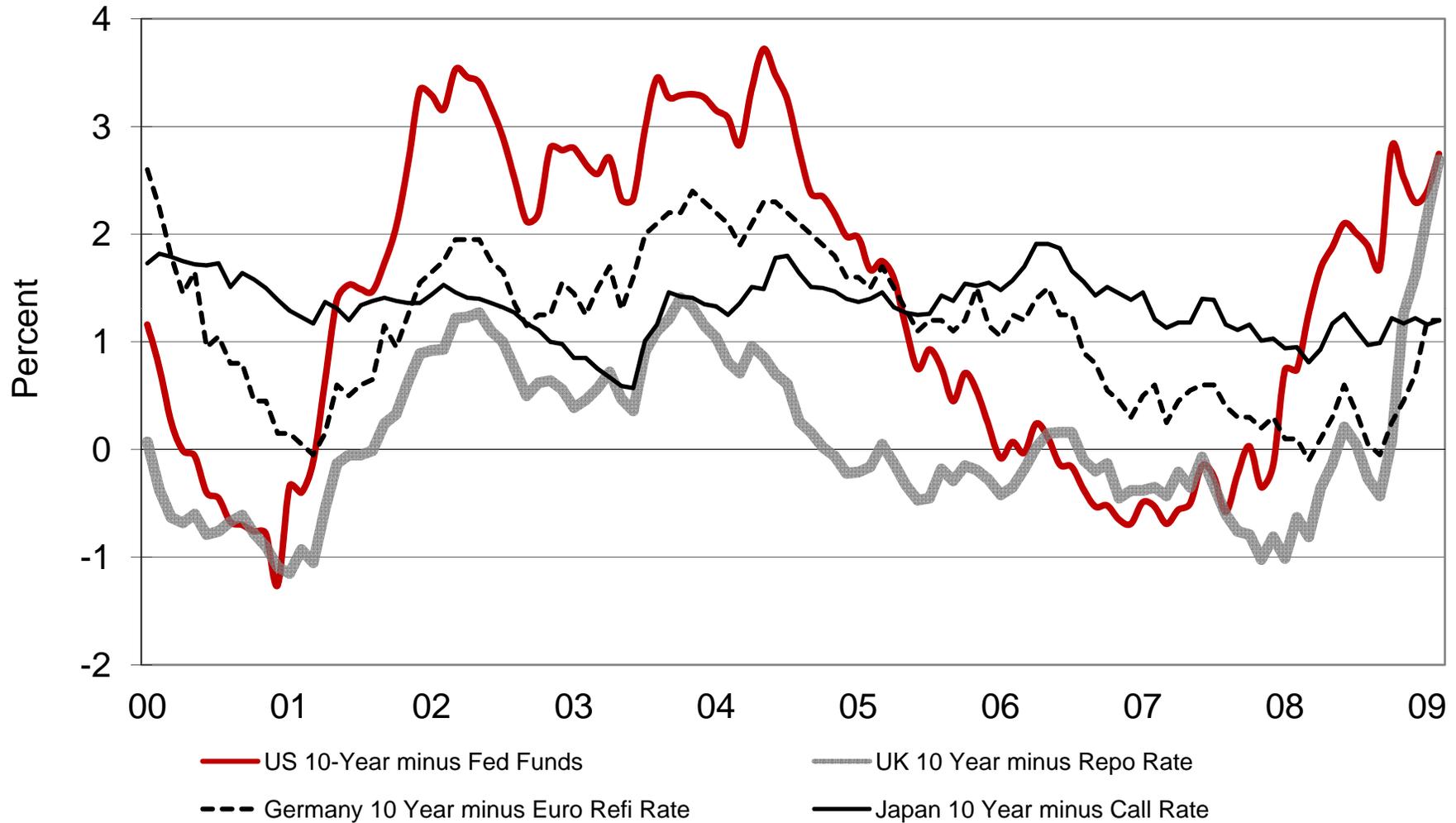
Source: Federal Reserve/ECB/BoE/BoJ/Haver

Global Government Bond Yields



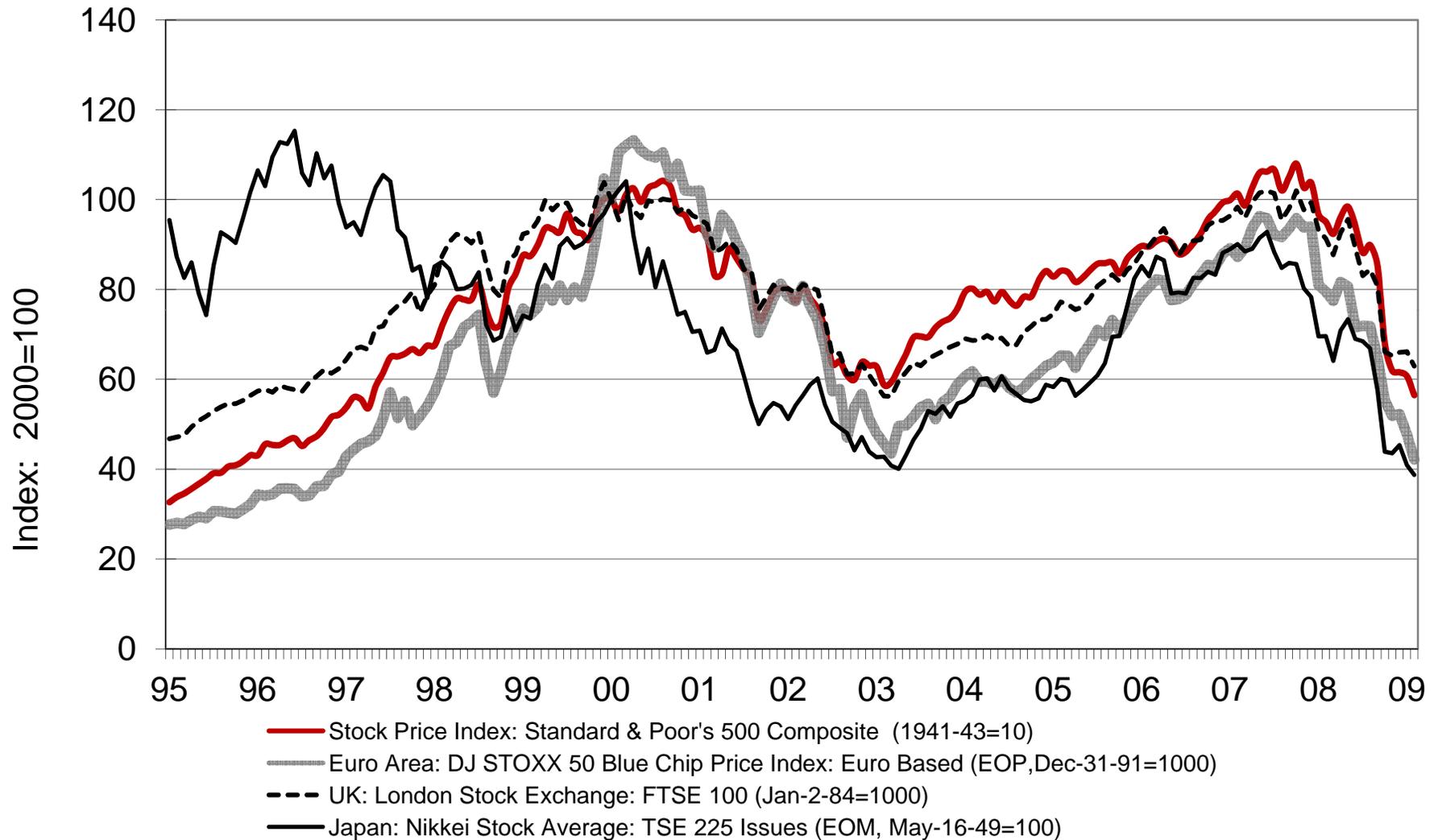
Source: US Treasury/Deutsche Bundesbank/BoE/Financial Times/ Haver

International Yield Spreads



Source: Federal Reserve/ECB/BoE/BoJ/US Treasury/Deutsche Bundesbank/BoE/Financial Times/Haver

Global Stock Markets

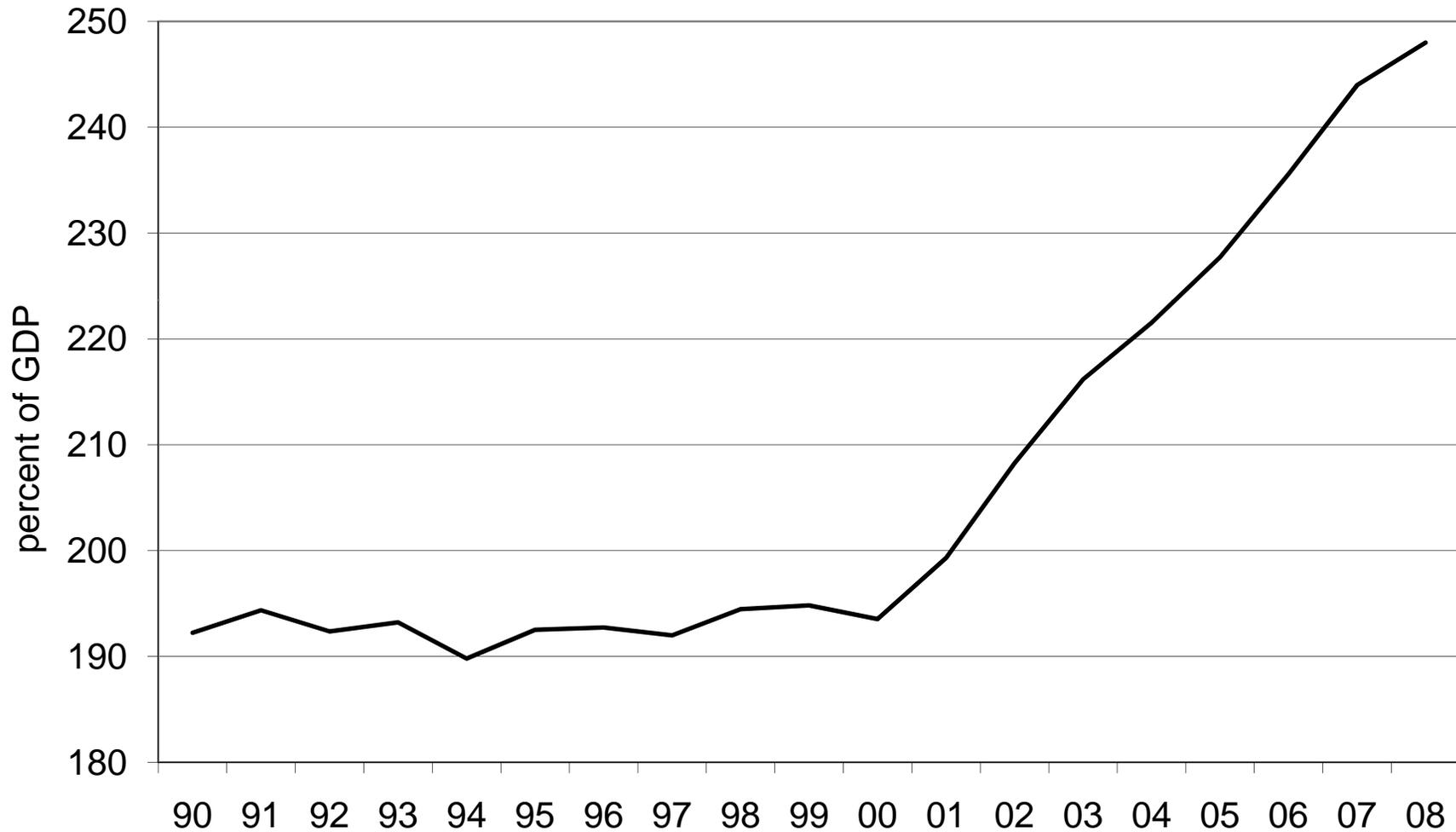


Source: Wall Street Journal/Dow Jones STOXX/Nikkei/Haver

Critical Characteristics of this US Recession

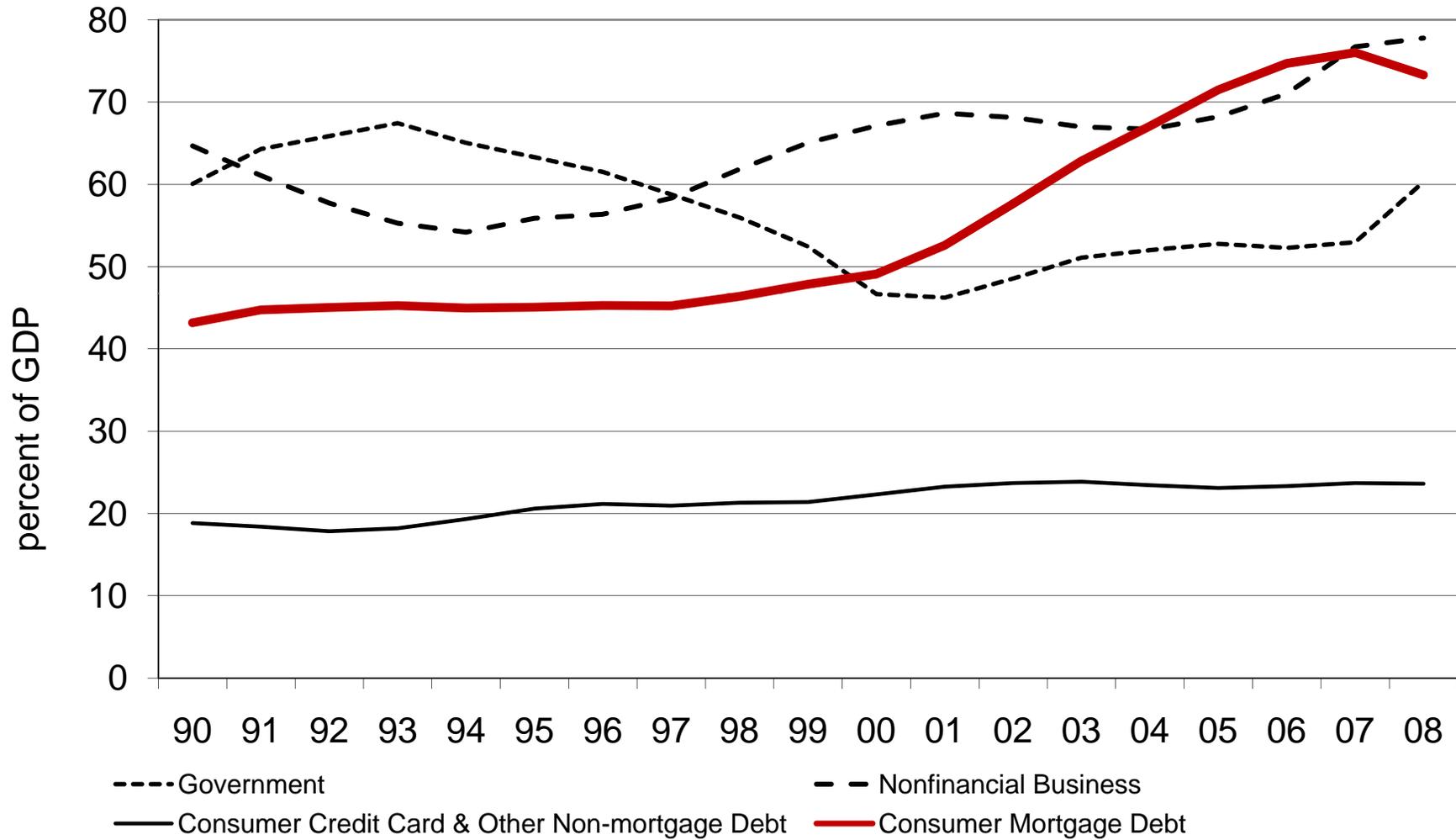
- **Massive correction of imbalances in housing and finance**
 - Common theme: excess consumer debt and financial leverage
- **Sharp contraction of housing and prices**
 - Uncertainty about how far home prices will fall
- **Banks are capital and balance sheet constrained**
 - First “post-securitization” financial crisis
 - Complexity and illiquidity of financial assets
 - Dysfunctional markets for mortgage and asset-backed securities
- **The monetary policy transmission channels are clogged**

The Rise in Indebtedness (percent of GDP)



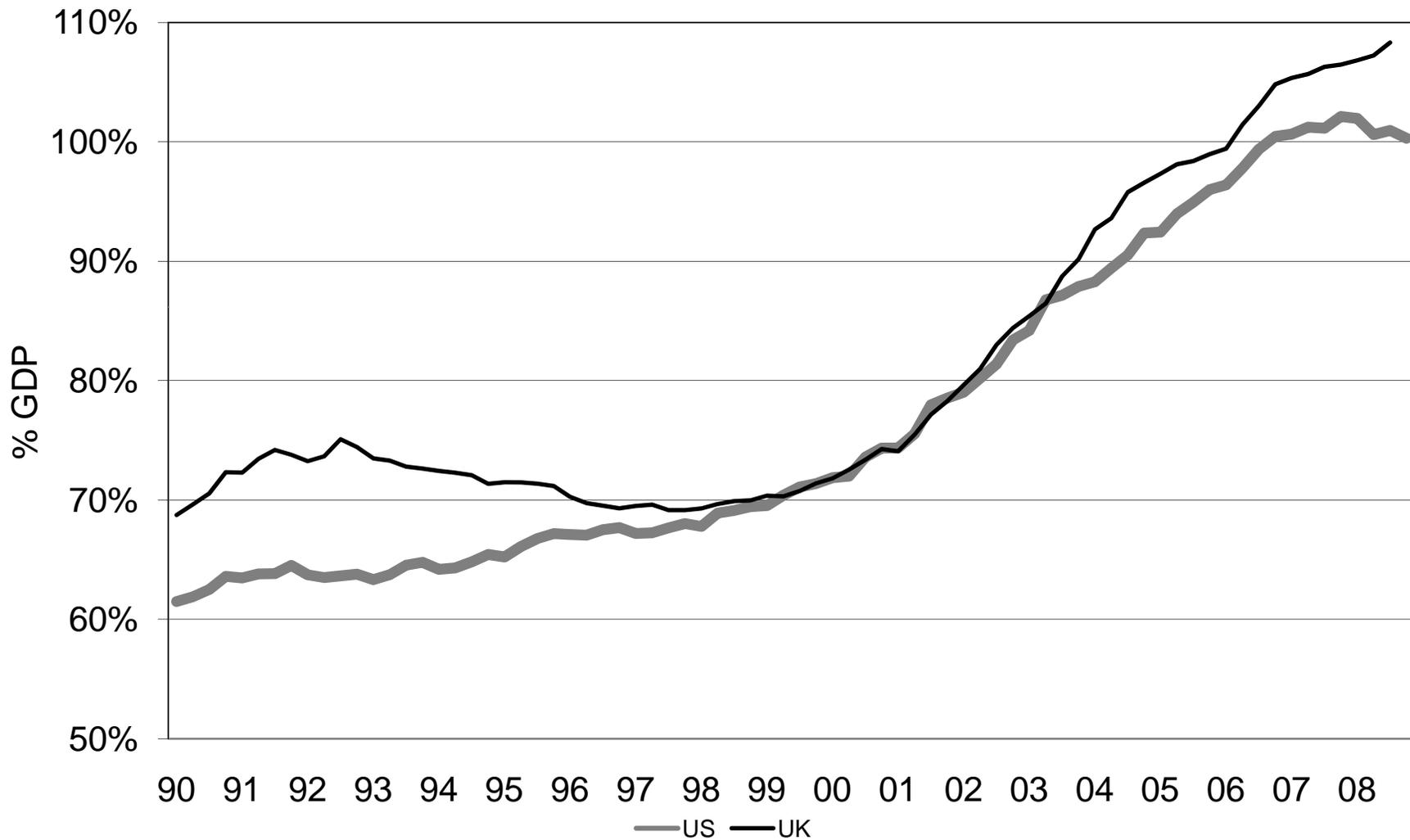
Source: Federal Reserve Board/ Haver Analytics

The Composition of the Rise in Indebtedness



Source: Federal Reserve Board/ Haver Analytics

US and UK Consumer Debt



Source: Federal Reserve Board/ Haver Analytics

Prerequisites for Economic Rebound

- **US**
 - Unclog monetary policy transmission channels
 - Stabilize the banking system
 - Move toward stability in housing and home prices
 - Stabilize confidence
- **International**
 - Boost demand
 - Restore order to banking and finance in Europe and UK
- **Hurdles to sustainable improvement**
 - Lack of confidence and risk adversity
 - Need to deleverage in US, UK and elsewhere

US Economic Outlook: Stimulus Will Help

- **Early initial signs of economic stability**
- **Real GDP to decline significantly through 2009Q2**
 - About 5% annualized decline in 2009Q1 and lesser declines in Q2 and Q3
 - Cleansing bank balance sheets and lifting uncertainties key
- **Monetary and fiscal stimulus extraordinarily aggressive**
 - Fiscal package poorly designed
 - But Fed's monetizing deficit spending will boost demand
 - Lower mortgage rates and energy costs
- **Consumption to get boost from tax reductions**
 - Constrained by debt overhang, declines in wealth
- **Housing to begin to stabilize in late 2009**
- **US exports constrained by global recession**

US Monetary Financial and Fiscal Responses

- **Fed's "turbo-charged" monetary stimulus**
 - "Quantitative easing" through purchases of GSE debt and mortgages and US Treasuries
 - Monetary base soars, but money multiplier falls
 - Boost to consumption and demand
 - Excess money: necessary but not sufficient for inflation
- **TARP, TALF and PPIP:**
 - Various liquidity and capital infusions
 - Implementation of TALF and PPIP crucial
 - Will it clear up bank balance sheets?
- **FDIC: expanded insurance, including interbank lending**

International Government Responses Lag

- **Large central banks ease rates, but follow US Fed**
 - **BoE and SNB shift to QE, but not ECB**
- **Fiscal stimulus more restrained in various Eurozone nations, UK and Japan**
- **International financial institutions slower to respond**
- **Restrained policy responses will delay rebound in global demand**
 - **Also, pace of private sector adjustments slower**

Financial Implications of Recession and Global Trends

- **When the Fed prints money, the stuff doesn't disappear**
 - It sloshes around until it is either spent or drained
 - Bids up prices of select financial assets
- **End of “The Great Moderation”**
 - Near-term flirt with deflation followed by inflation pressures
- **Bond yields to rise, yield curve to steepen**
 - Dramatically higher US government debt
 - Former excess savings nations squeezed
- **Stock markets to rebound (gradually?)**
- **Commodity prices likely to rise**

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