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A Japanese Lesson for the Eurozone in Balance Sheet Recession

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See Appendix A-1
for important disclosures and
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November 2014

Exhibit 1. Drastic Liquidity Injections Resulted in minimal Increases in Money Supply and Credit (I): US

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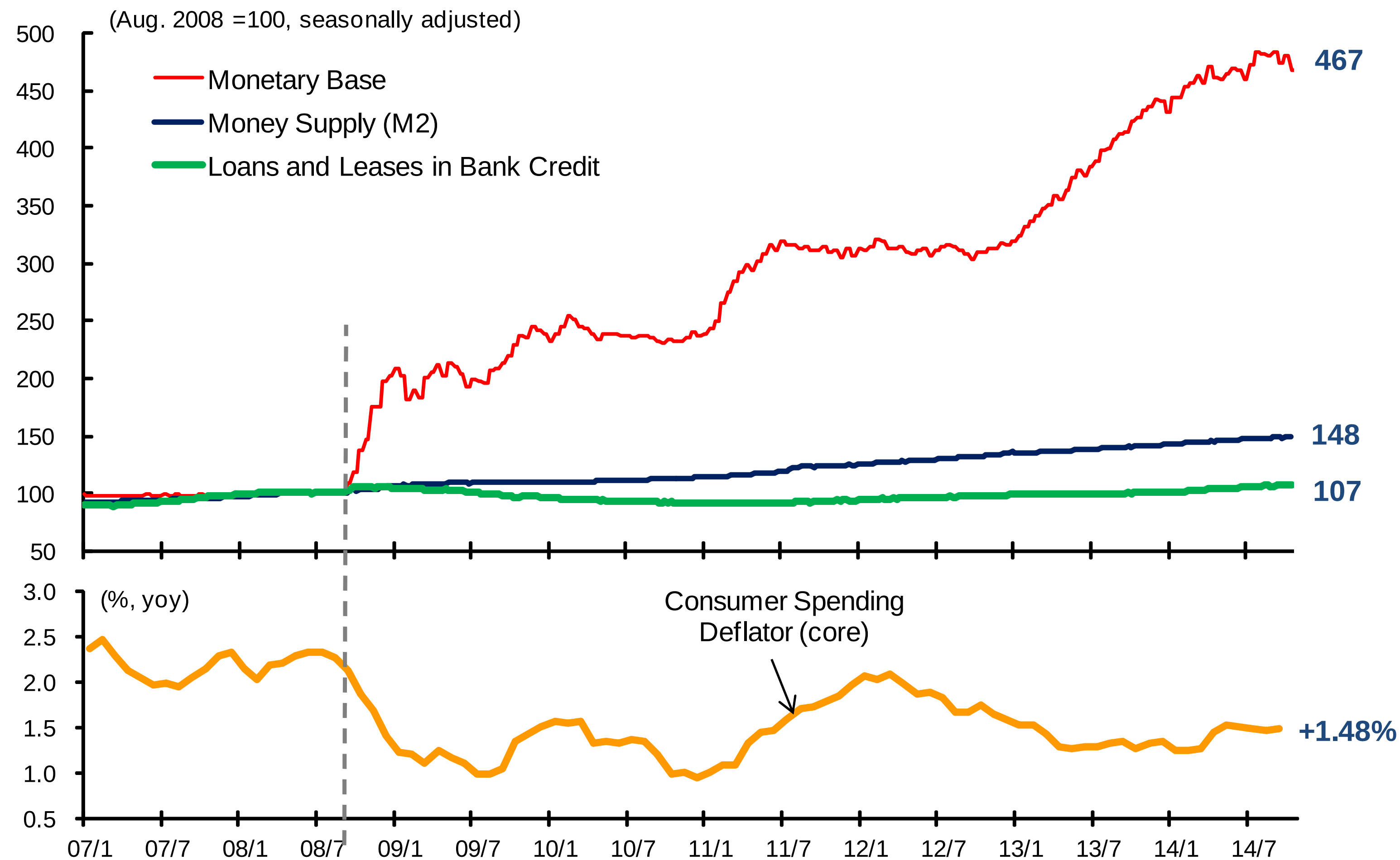

Note: Commercial bank loans and leases, adjustments for discontinuities made by Nomura Research Institute.
Sources: Federal Reserve Board; US Department of Commerce

Exhibit 2. Drastic Liquidity Injections Resulted in minimal Increases in Money Supply and Credit (II): Eurozone

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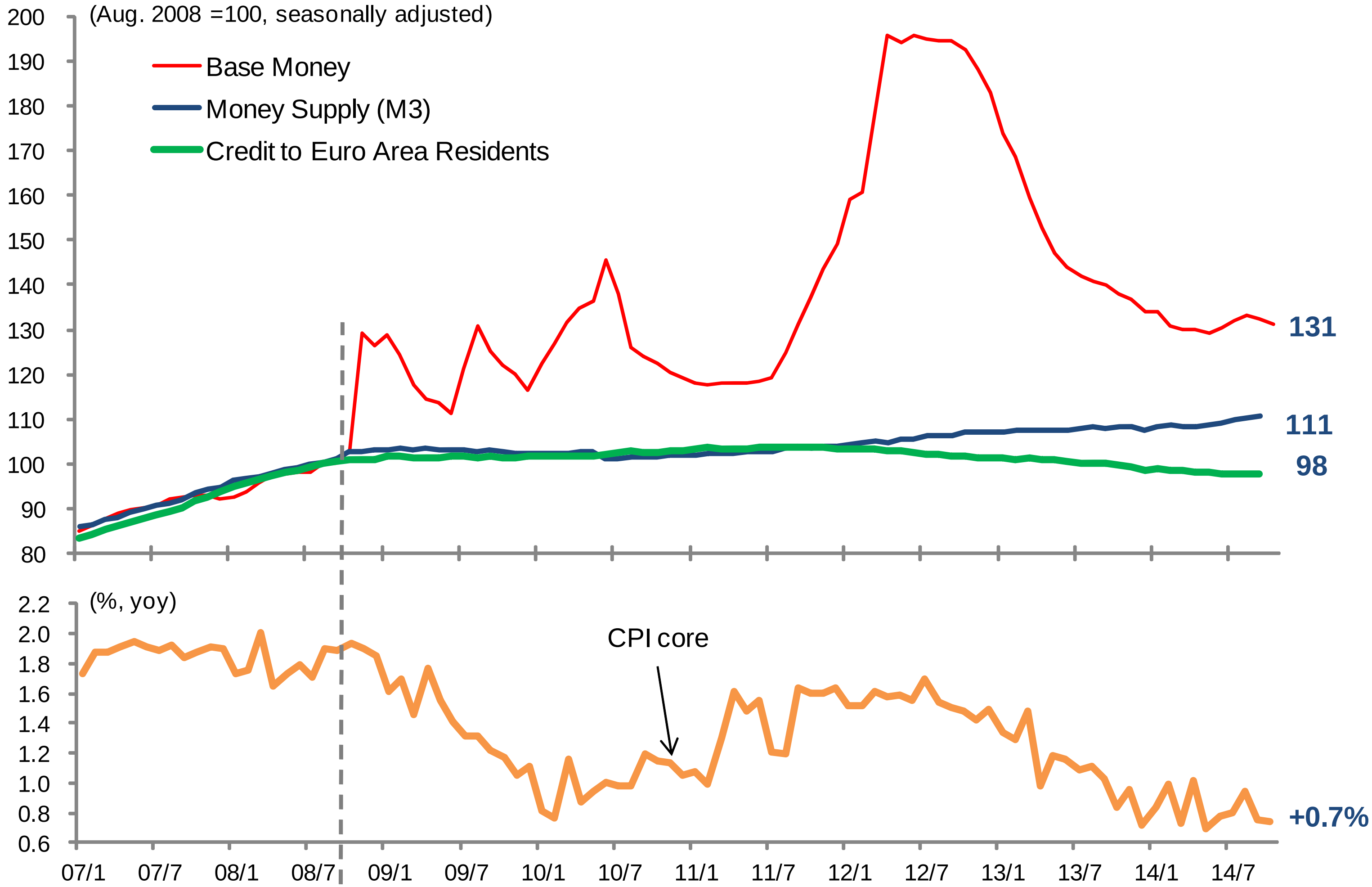

Note: Base money's figures are seasonally adjusted by Nomura Research Institute.
Sources: European Central Bank; Eurostat

Exhibit 3. Drastic Liquidity Injections Resulted in minimal Increases in Money Supply and Credit (III): UK

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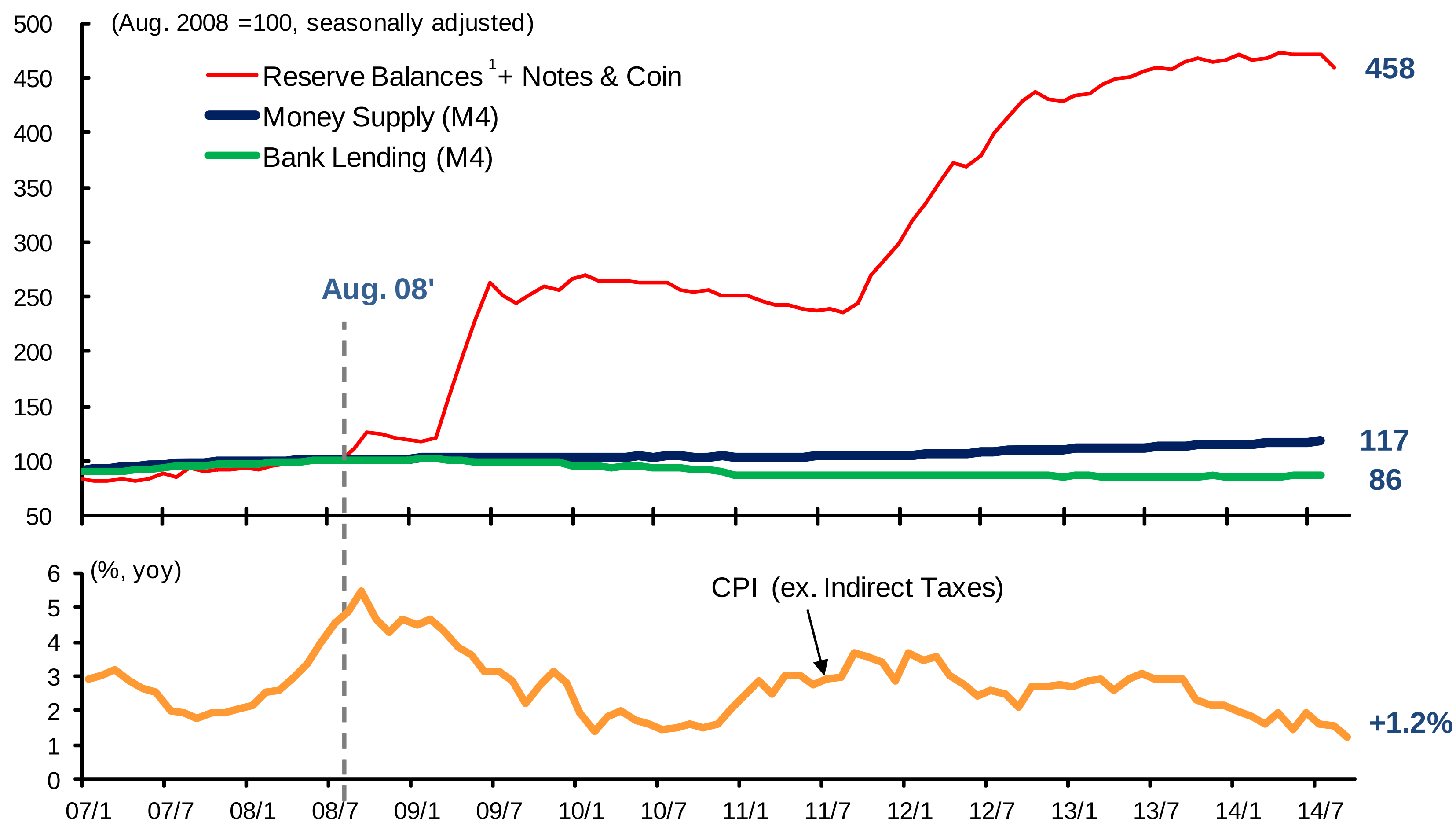

Notes: 1. Reserve balances data are seasonally unadjusted.
2. Money supply and bank lending data exclude intermmediate financial institutions.
Sources: Bank of England; Office for National Statistics, UK

Exhibit 4. Drastic Liquidity Injections Resulted in minimal Increases in Money Supply and Credit (IV): Japan

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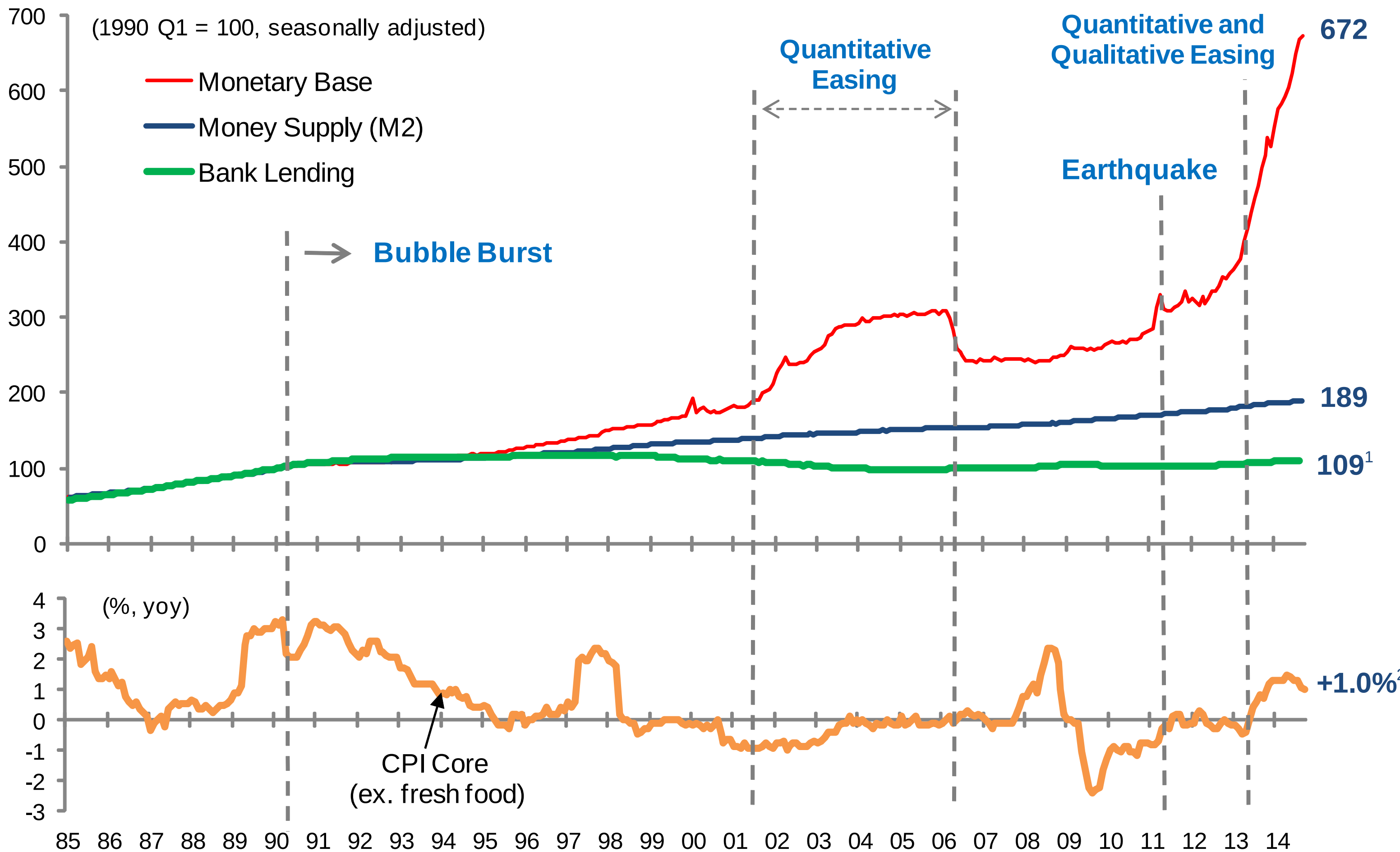

Notes: 1. Figures for bank lending are seasonally adjusted by Nomura Research Institute.
2. Excluding the impact of consumption tax.
Source: Bank of Japan

Exhibit 5. The Cause of Breakdown in Monetary Transmission: Bursting of Debt-Financed Bubbles

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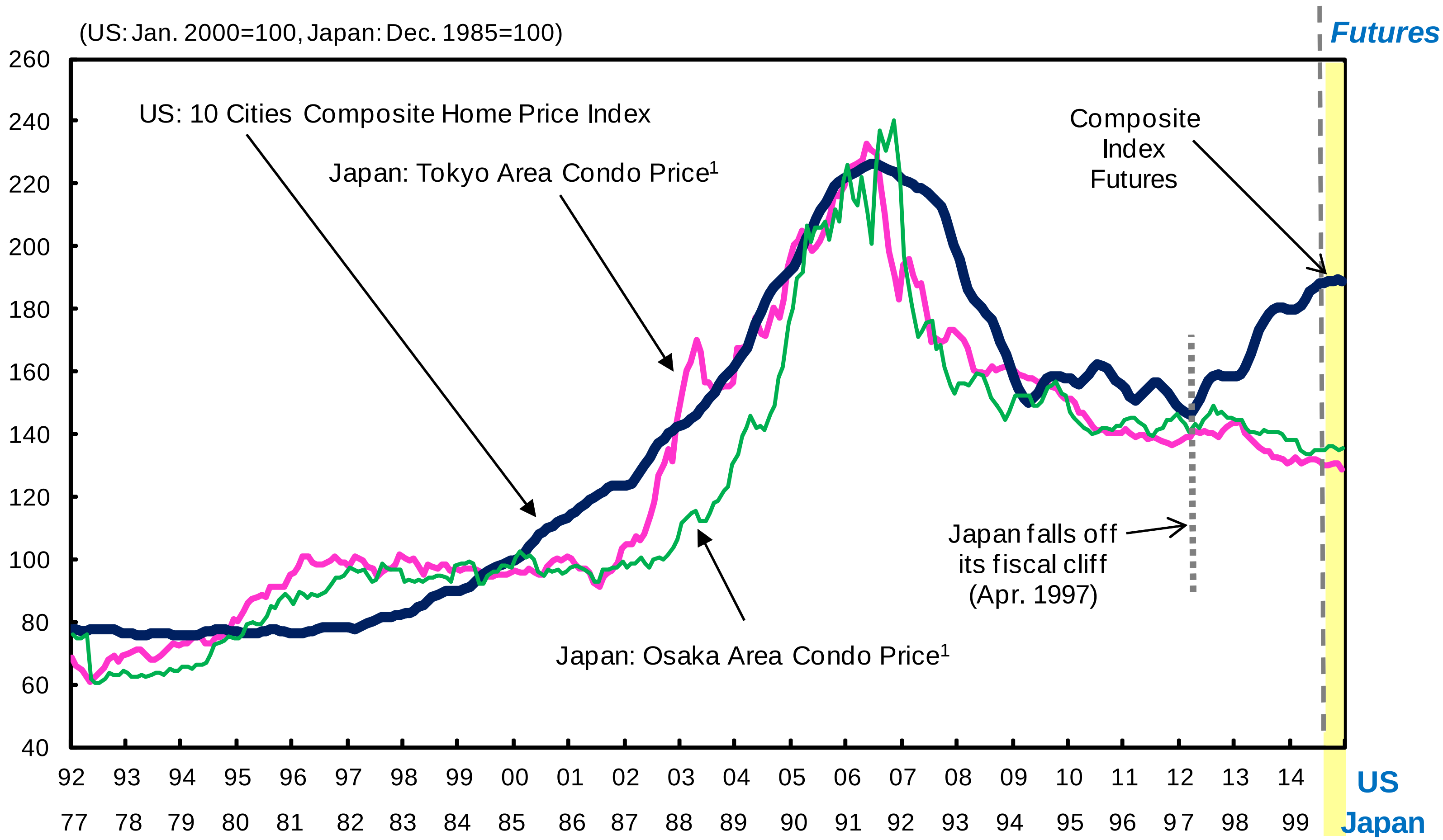
US House Prices Have Been Following the Japanese Experience



Notes: per m^2, 5-month moving average. As of Nov. 3, 2014.
Sources: Bloomberg; Real Estate Economic Institute, Japan; S&P, S&P/Case-Shiller® Home Price Indices.

Exhibit 6. Europe also Experienced House Price Bubbles, except Germany and Austria

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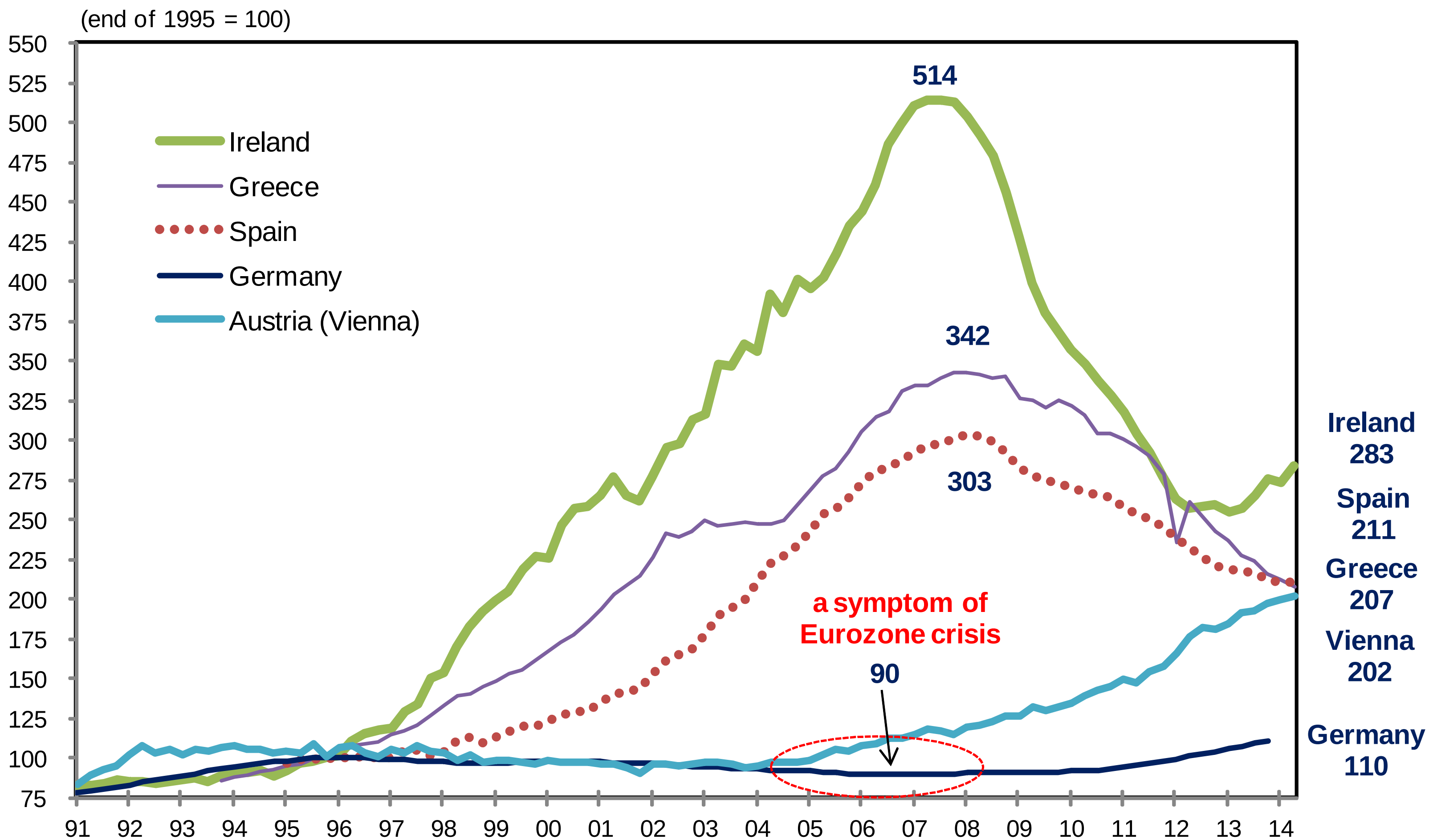

Notes: 1. Ireland's figures before 2005 are existing house prices only.
2. Greece's figures are flats' prices in Athens and Thessaloniki.
Sources: Nomura Research Institute, calculated from Bank for International Settlements data.

Exhibit 7. Japan's Corporate De-leveraging with Zero Interest Rates Lasted for over 10 Years

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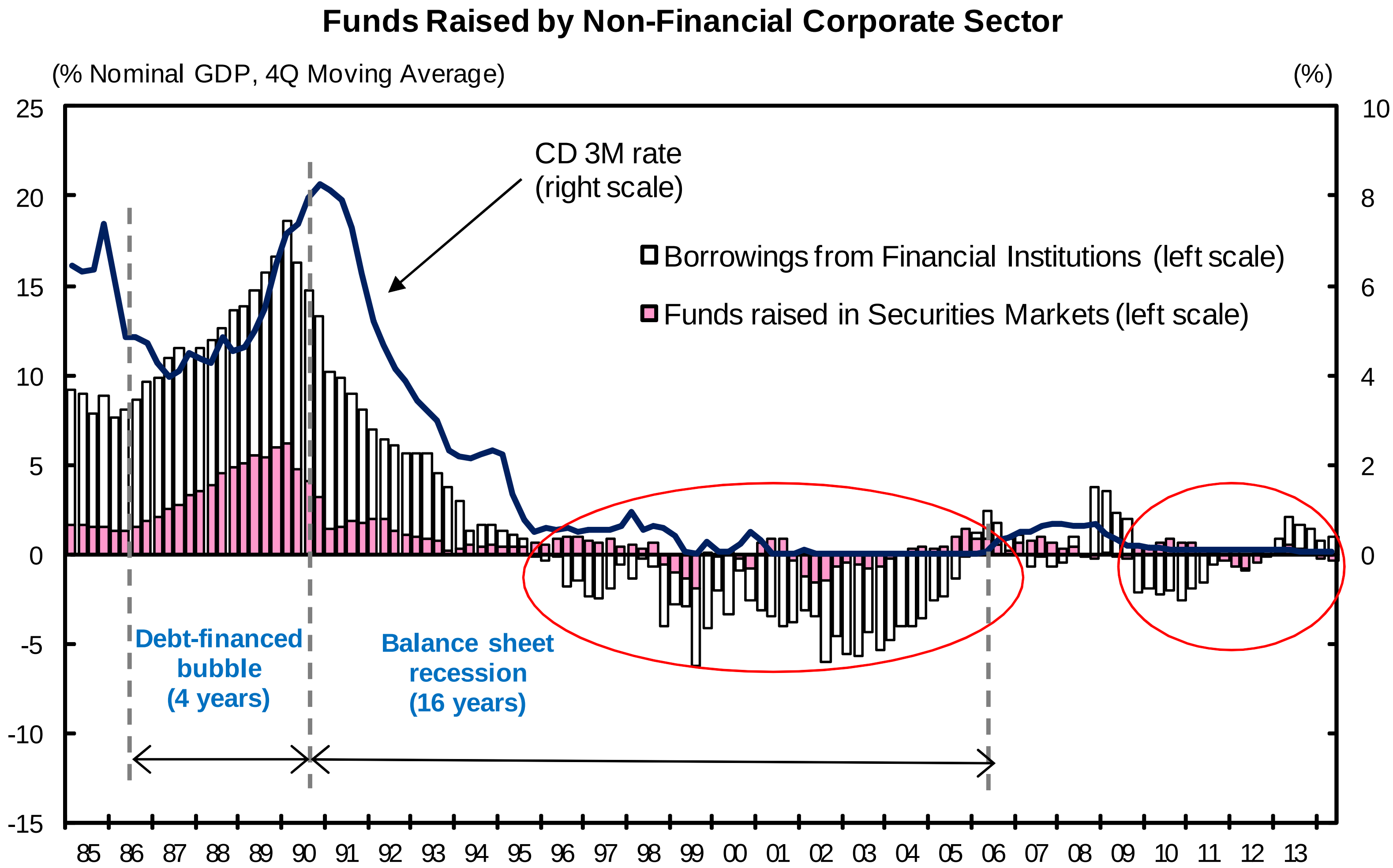

Sources: Bank of Japan; Cabinet Office, Japan

Exhibit 8. Japan's GDP Grew despite major Loss of Wealth and Private Sector De-leveraging

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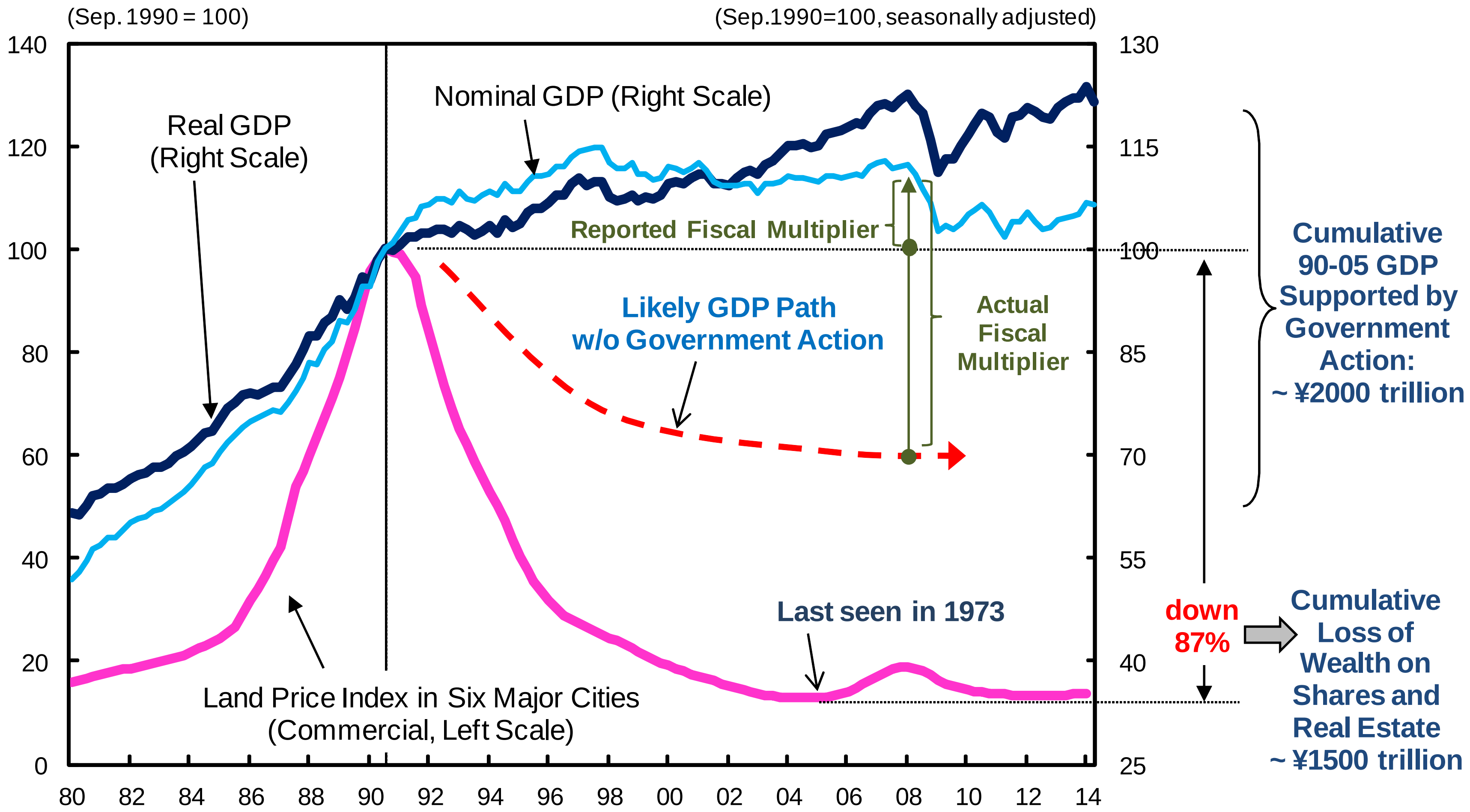

Sources: Cabinet Office,Japan; Japan Real Estate Institute

Exhibit 9. Japan's Challenge: Get Businesses to Borrow Money

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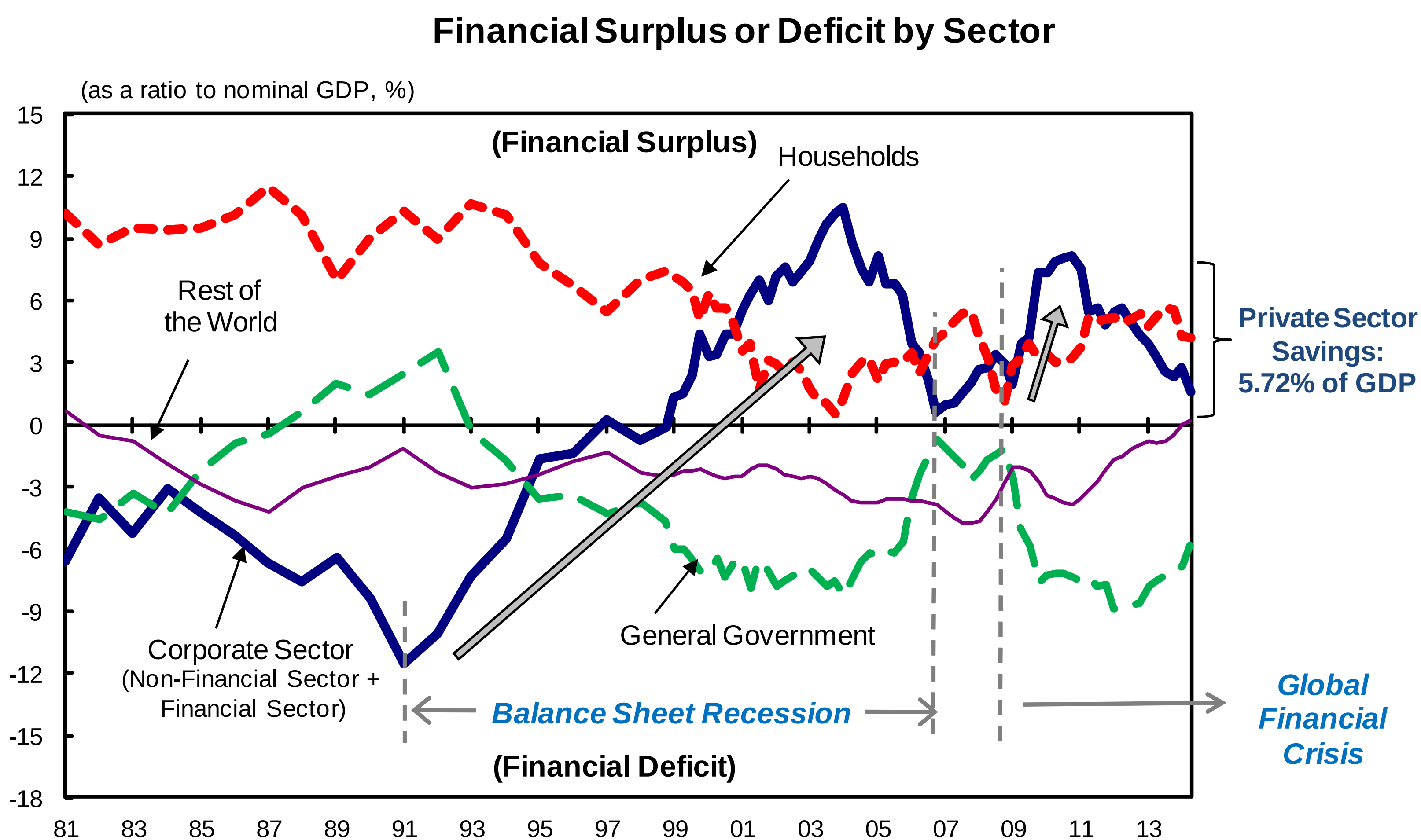

Note: All entries are four-quarter moving averages. For the latest figures, four-quarter averages ending in 2014 Q2 are used.
Sources: Bank of Japan, *Flow of Funds Accounts*, and Government of Japan, Cabinet Office, *National Accounts*

Exhibit 10. US in Balance Sheet Recession: US Private Sector Saved on Average 5% of GDP since 2008 Q4

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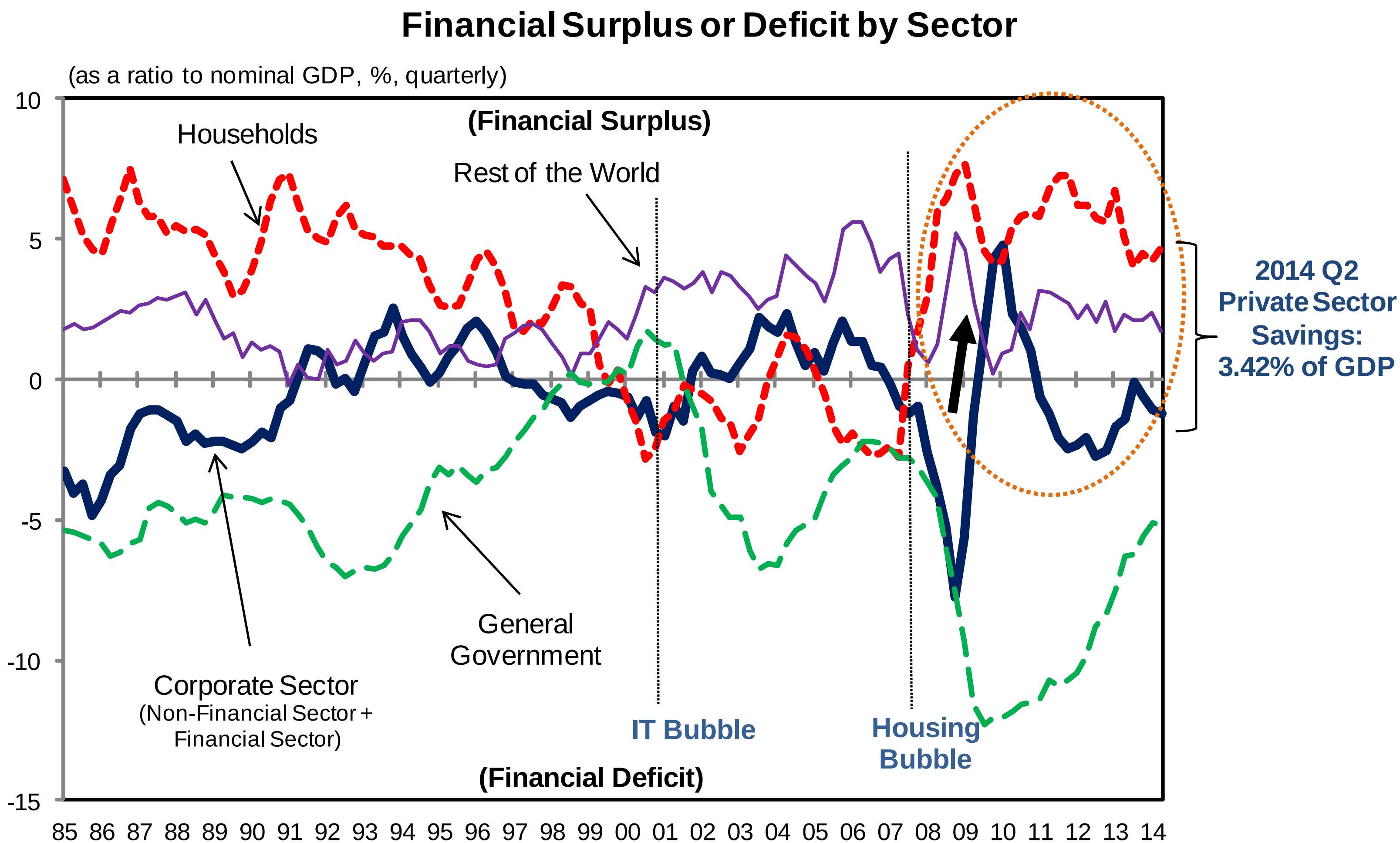
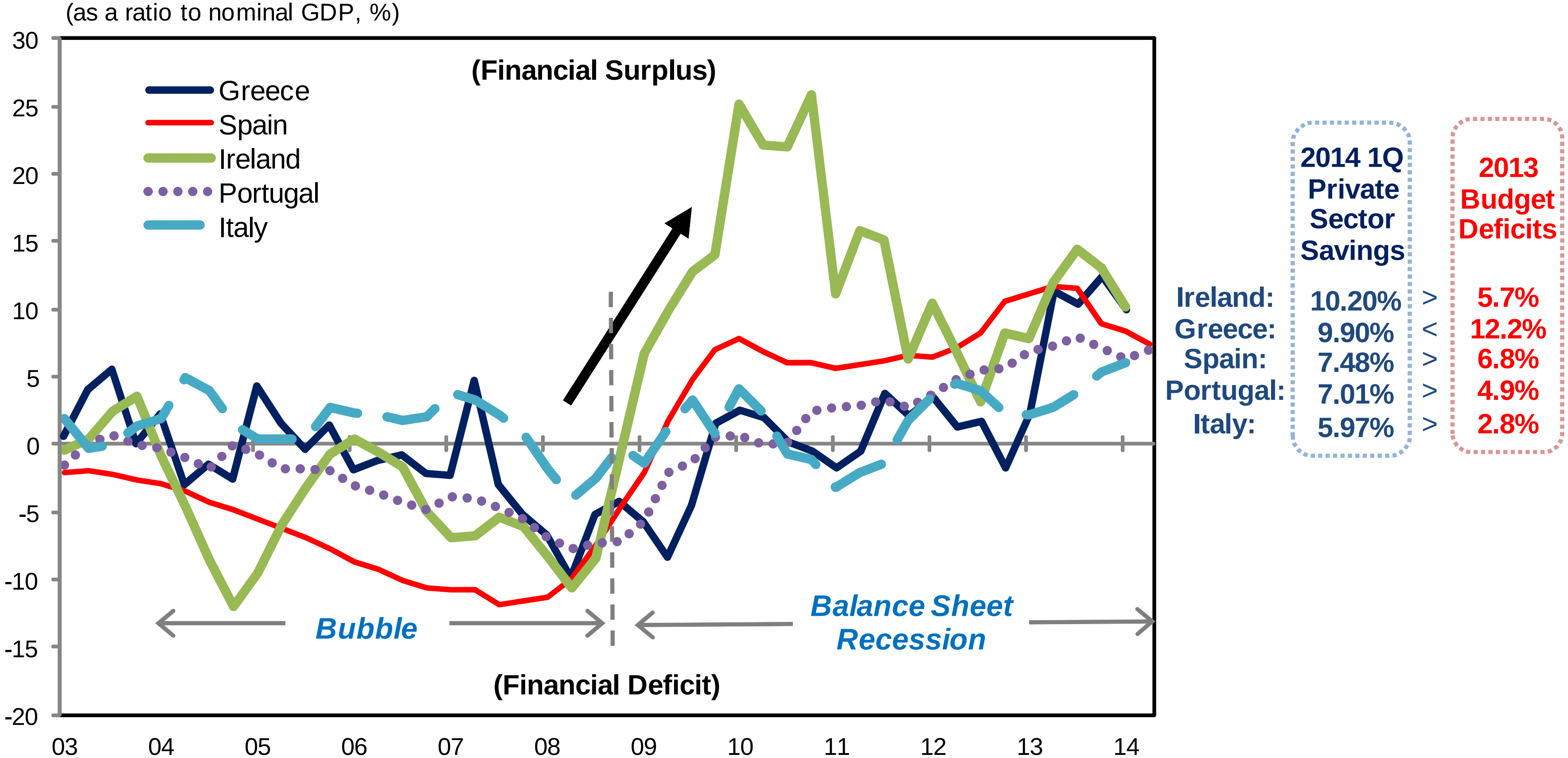


Note: All entries are four-quarter moving averages. For the latest figures, four-quarter averages ending in 2014 Q2 are used.
Sources: FRB, US Department of Commerce

Exhibit 11. Europe in Balance Sheet Recession, but Maastricht Treaty cannot Handle Private Sector Savings far more than 3% of GDP



Notes: 1. Private Sector = Household Sector + Non-Financial Corporate Sector + Financial Sector
2. All entries are four-quarter moving averages. For the latest figures, four-quarter averages ending in 2014 1Q (only Spain and Portugal, 2014 2Q) are used. Budget deficits in Euro area in 2013 are from Oct. 21, 2014 release by Eurostat.

Sources: Bank of Greece, Banco de España, National Statistics Institute, Spain, The Central Bank of Ireland, Central Statistics Office Ireland, Banco de Portugal, Banca d'Italia and Italian National Institute of Statistics

Exhibit 12. Peripheral Eurozone Bond Yields Jumped because of De-stabilizing Capital Flows

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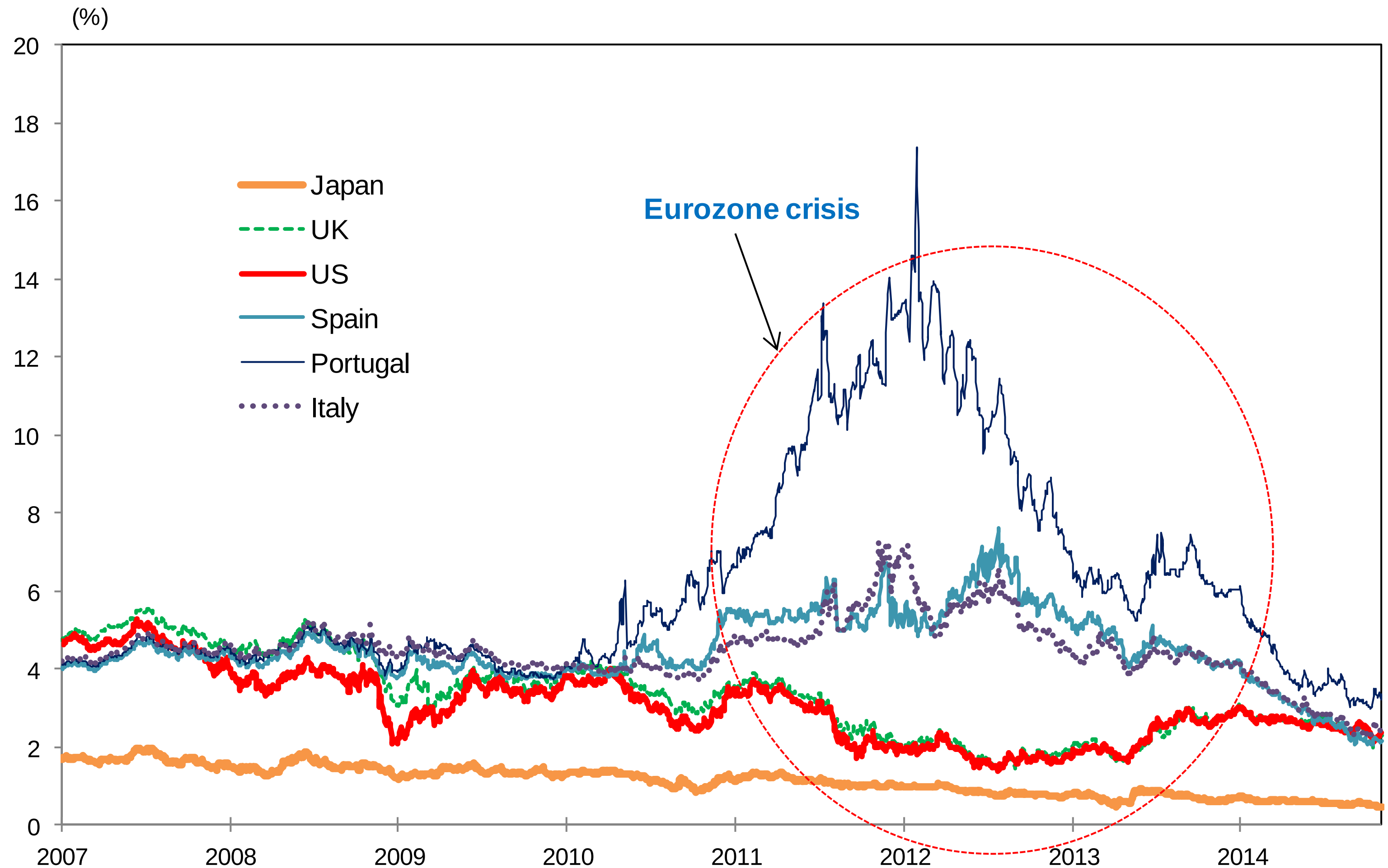

Note: As of Nov. 3, 2014.
Source: Bloomberg

Exhibit 13. The Collapse of Neuer Markt in 2001 Pushed German Economy into Balance Sheet Recession

Source: Bloomberg As of Oct. 31, 2014

Exhibit 14. German Private Sector Refused to Borrow Money after the Dotcom Bubble

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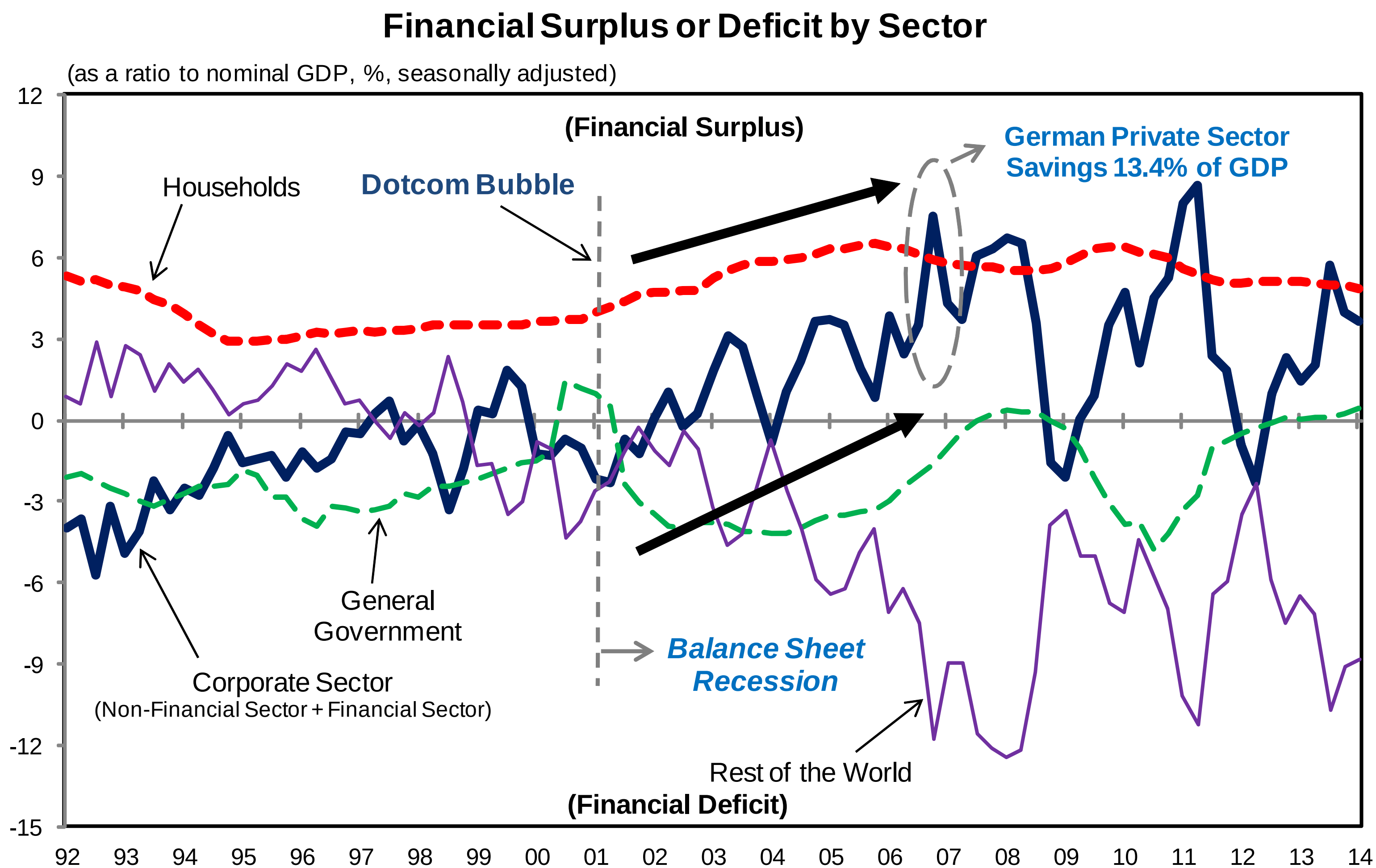

Notes: The assumption of Treuhand agency's debt by the Redemption Fund for Inherited Liabilities in 1995 is adjusted.
All entries are four-quarter moving averages. For the latest figures, four-quarter averages ending in 2014 Q1 are used.
Source: Nomura Research Institute, based on the data of Bundesbank and Eurostat

Exhibit 15. German Households Stopped Borrowing altogether after the Dotcom bubble

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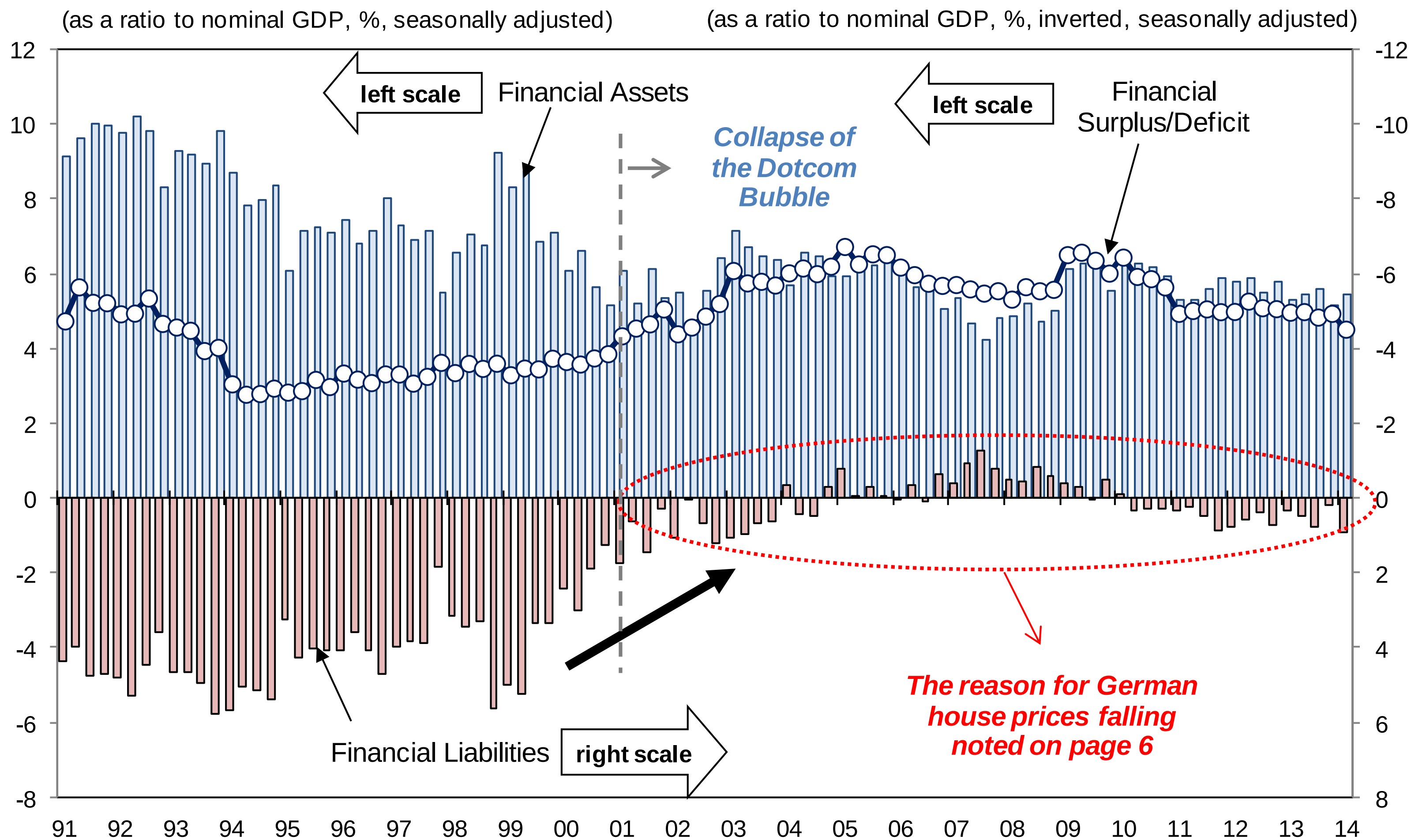

Note: Seasonal adjustments by Nomura Research Institute. Latest figures are for 2014 Q1.
Sources: Nomura Research Institute, based on flow of funds data from Bundesbank and Eurostat

Exhibit 16. Spanish Households Increased Borrowings after the Dotcom Bubble: Now They Are Deleveraging

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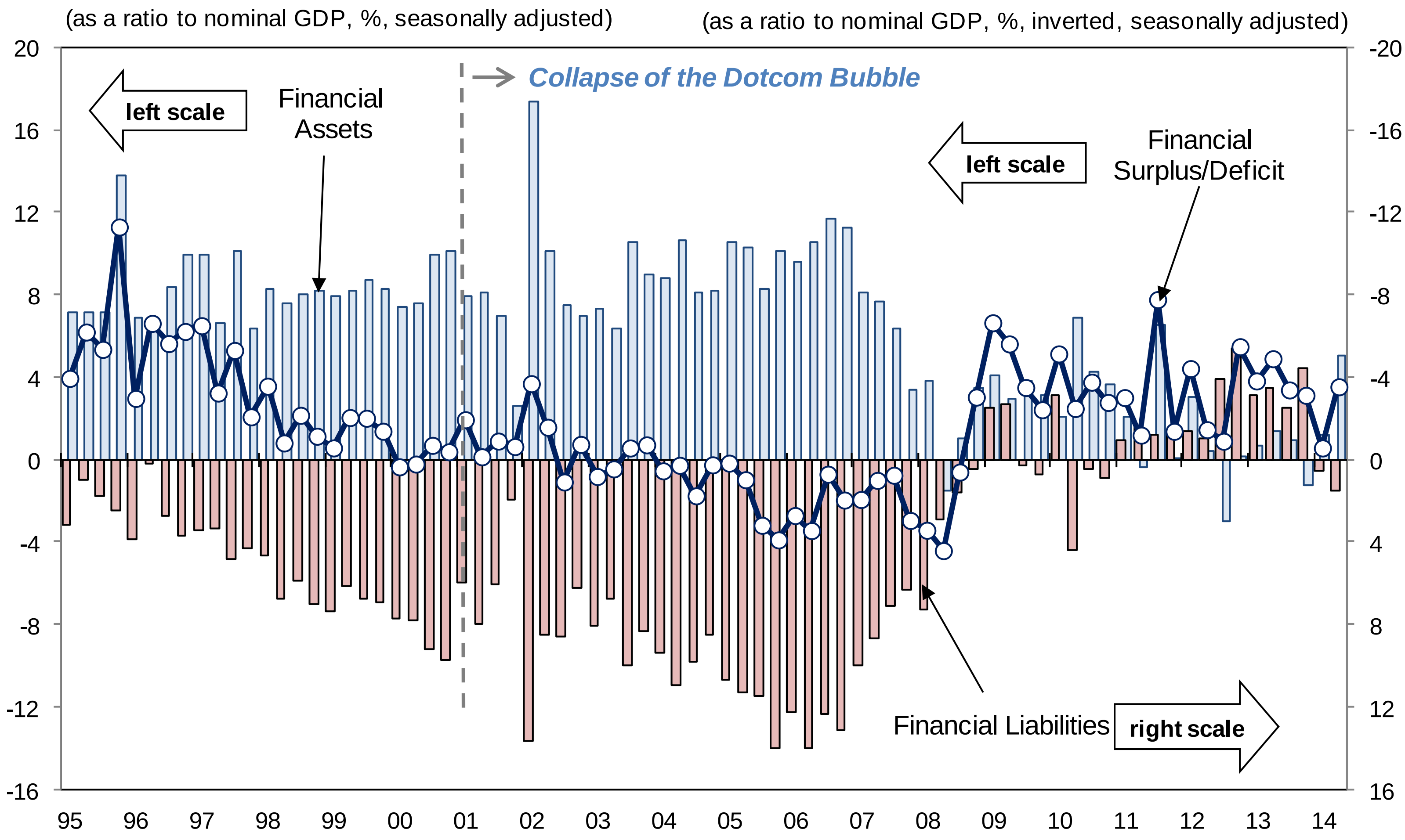

Notes: Seasonal adjustments by Nomura Research Institute. Latest figures are for 2014 Q2.
Sources: Nomura Research Institute, based on flow of funds data from Banco de España and National Statistics Institute, Spain

Exhibit 17. Irish Households Increased Borrowings after the Dotcom Bubble: Now They Are Deleveraging

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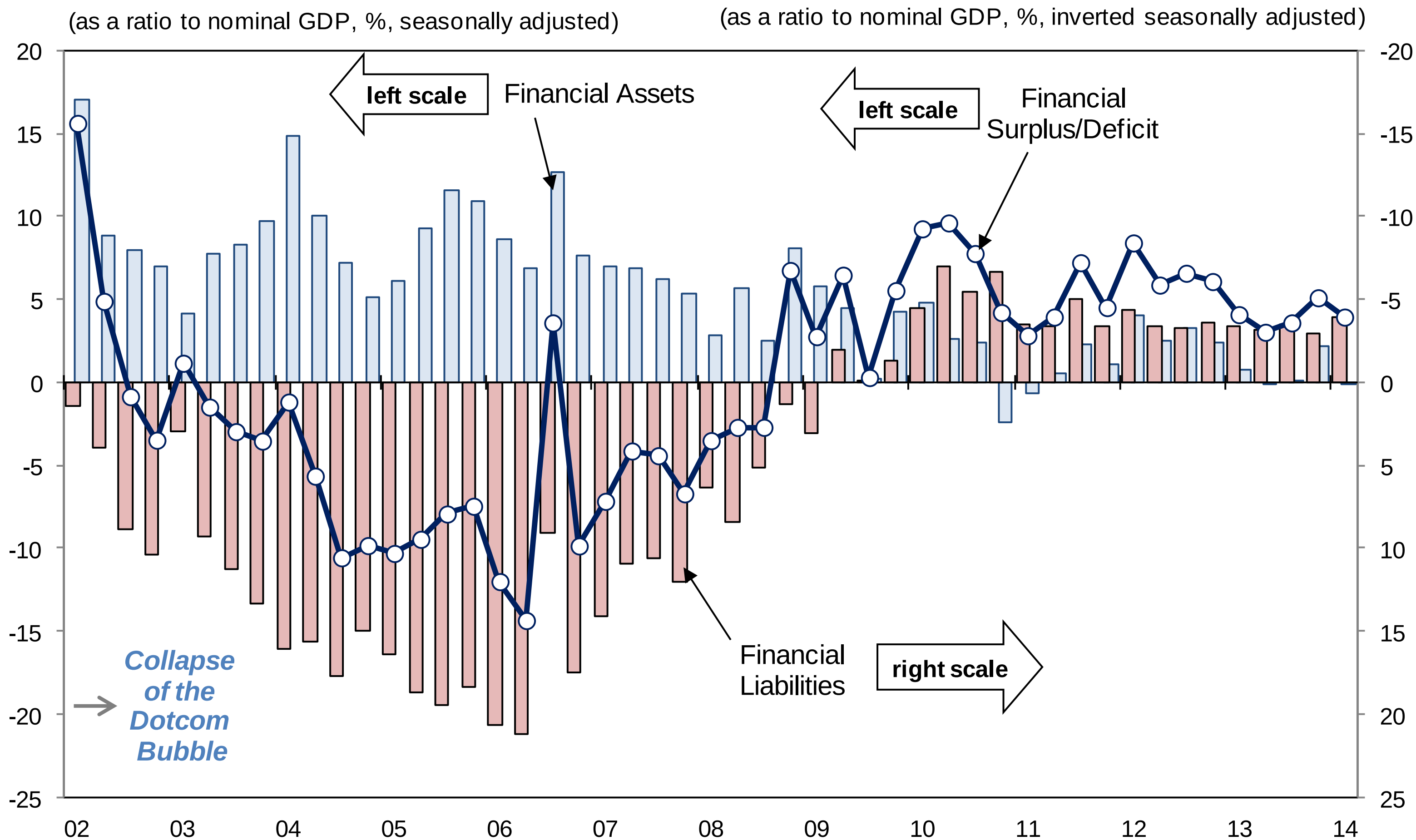

Notes: Seasonal adjustments by Nomura Research Institute. Latest figures are for 2014 Q1.
Source: Nomura Research Institute, based on flow of funds data from Central Bank of Ireland and Central Statistics Office, Ireland

Exhibit 18. German-Eurozone (ex. Germany) Competitiveness Gap Has Macro (50.2%) and Micro (49.8%) Factors

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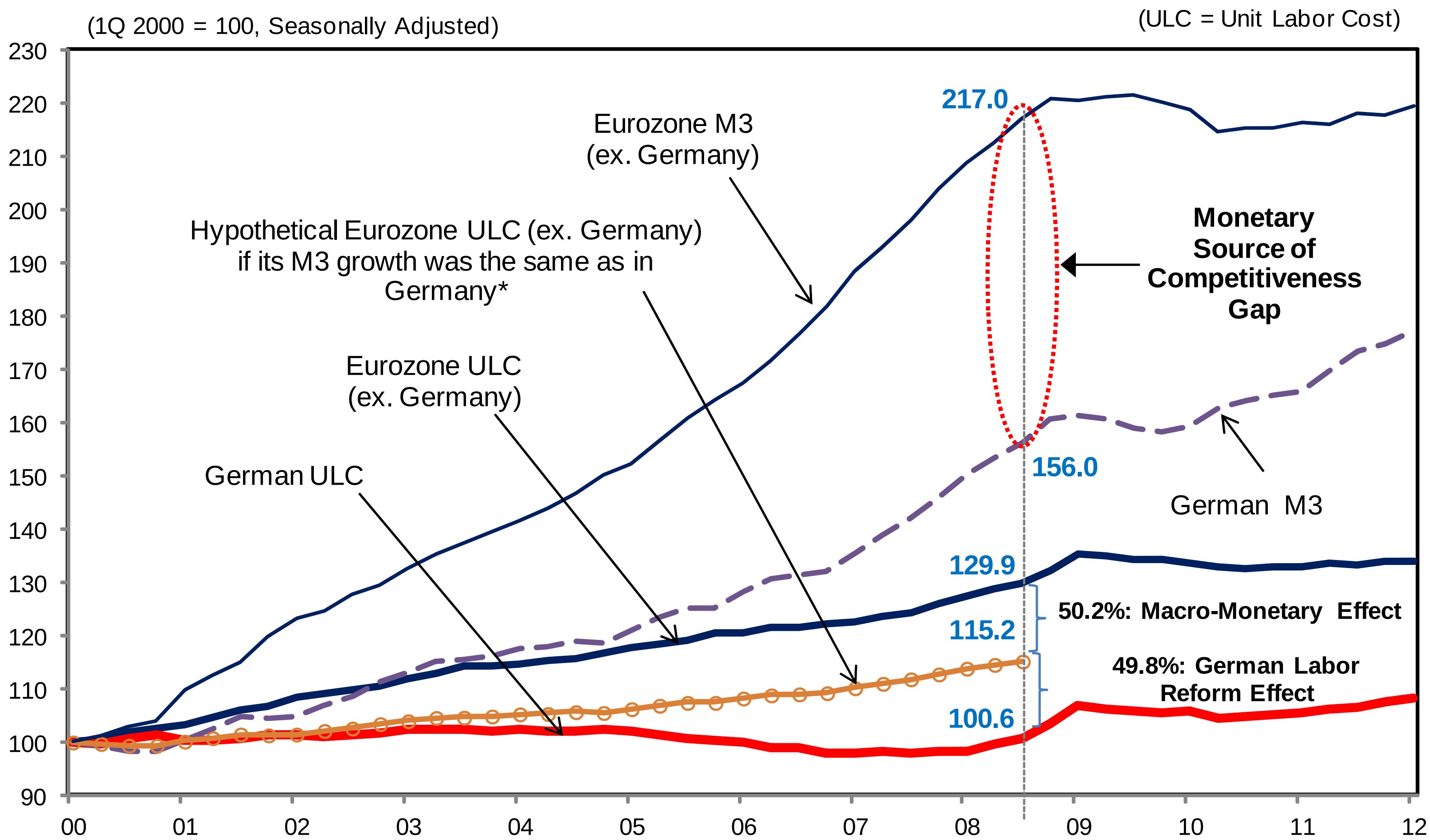

Note: * Parameters obtained from the regression result on Eurozone ULC (ex. Germany) on Eurozone M3 (ex. Germany), log(Eurozone ULC (ex.Germany)) = 3.155506 + log(Eurozone M3 (ex.Germany)) x 0.318227, applied to German M3 data indexed to 1Q 2000 = 100.

Sources: Nomura Research Institute, based on ECB, Eurostat and Deutsche Bundesbank data

Exhibit 19. Germany Recovered from Post-Dotcom Balance Sheet Recession by Exporting to other Eurozone Countries

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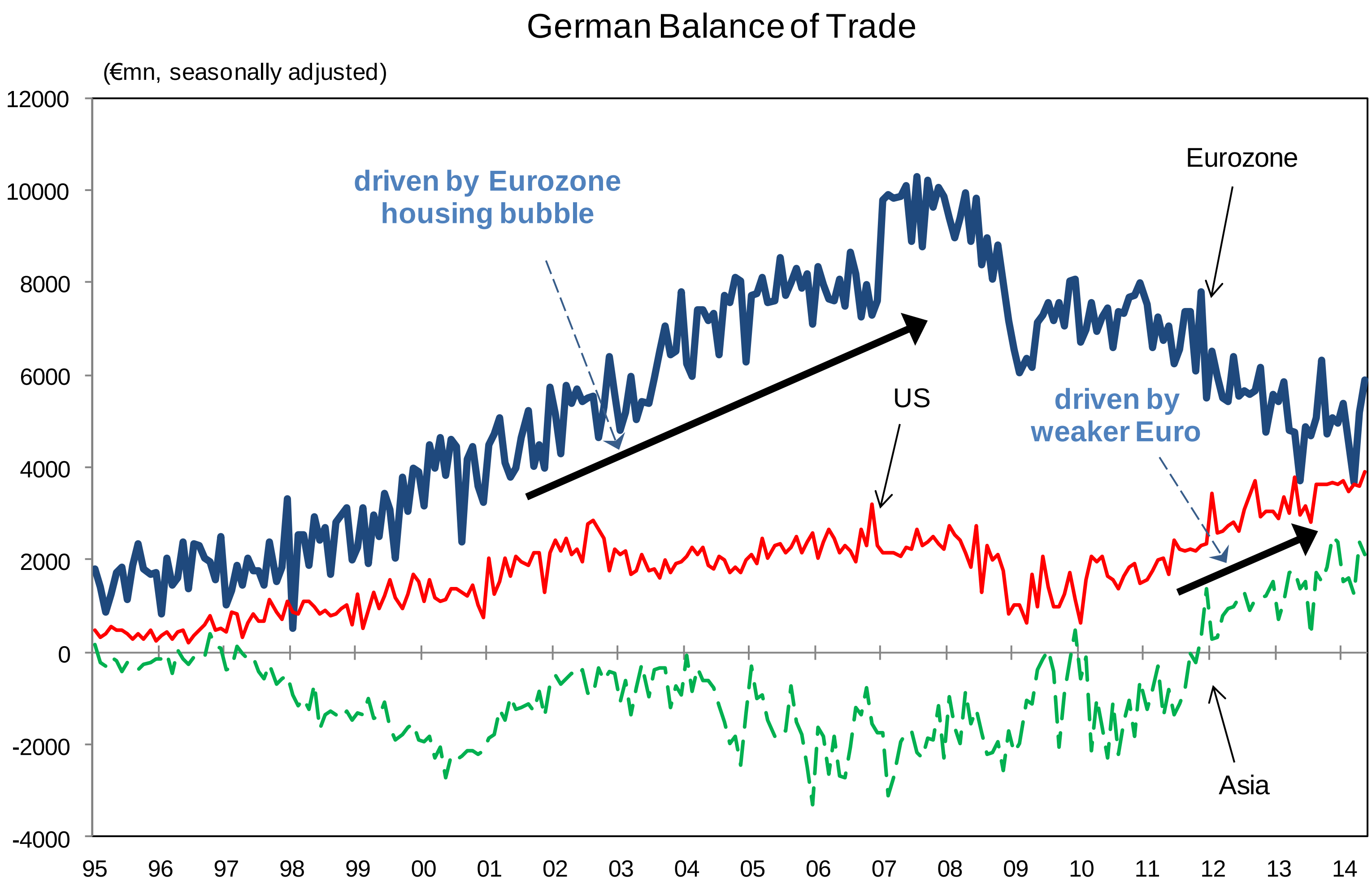

Source: Deutsche Bundesbank

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Two Structural Deficiencies of the Eurozone

(1)

Maastricht Treaty restricted fiscal stimulus needed to fight balance sheet recessions

Countries suffering from balance sheet recessions fall into deflationary spirals, while excessive easings by the ECB create bubbles elsewhere

Allow countries in balance sheet recessions to implement sufficient fiscal stimulus with blessings from the Troika

(2)

Procyclical and destabilizing capital flows between gov. bond markets

Excessively low gov. bond yields during bubbles

Excessively high gov. bond yields during balance sheet recessions

Introduce different risk weights for holdings of domestic vs foreign gov. bonds to keep domestic savings at home

Problem

Solution

Exhibit 21. Contrast Between Yin and Yang Phases of Economic Cycle for Eurozone

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		Textbook Economy "Yang"	***Balance Sheet Recession "Yin"***
1) Fundamental driver		Adam Smith's "invisible hand"	Fallacy of composition
2) Private financial condition		Assets > Liabilities	Assets < Liabilities
3) Behavioral principle		Profit maximization	Debt minimization
4) Outcome		Greatest good for greatest number	Depression if left unattended
5) Monetary policy		Effective	Ineffective (liquidity trap)
6) Fiscal policy		Counterproductive (crowding-out)	Effective
7) Prices		Inflationary	Deflationary
8) Interest rates		Normal	Very low
9) Savings		Virtue	Vice (paradox of thrift)
10) Remedy for Banking Crisis	a) Localized	Quick NPL disposal Pursue accountability	Normal NPL disposal Pursue accountability
	b) Systemic	Slow NPL disposal Fat spread	Slow NPL disposal Gov. capital injection
11) Maastricht 3% gov. deficit rule		Stability and growth enhancing	Instability and depression inducing

Source: Based on Richard Koo, *The Holy Grail of Macroeconomics: Lessons from Japan's Great Recession* ,
John Wiley & Sons, Singapore, 2008, p.176

Appendix A-1

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