

U.S. - China Trade War and the Fate of Zero-Interest Rate Economies

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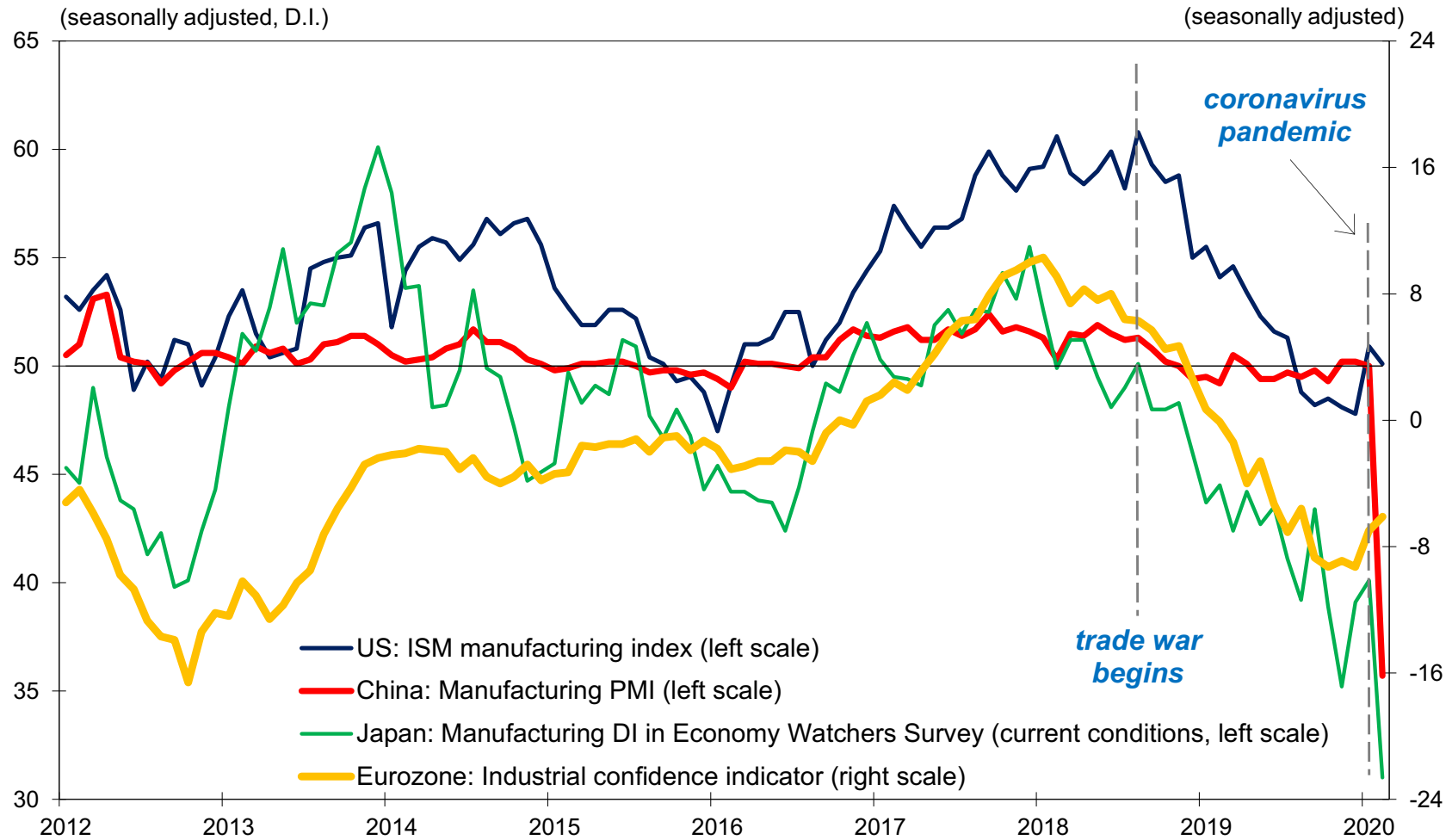
See Appendix A-1
for important disclosures and
the status of non-US analysts.

March 2020

Exhibit 1. Synchronized Global Collapse Triggered by US-China Trade War/Coronavirus Pandemic

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Manufacturing sentiment in Japan, US, Europe and China

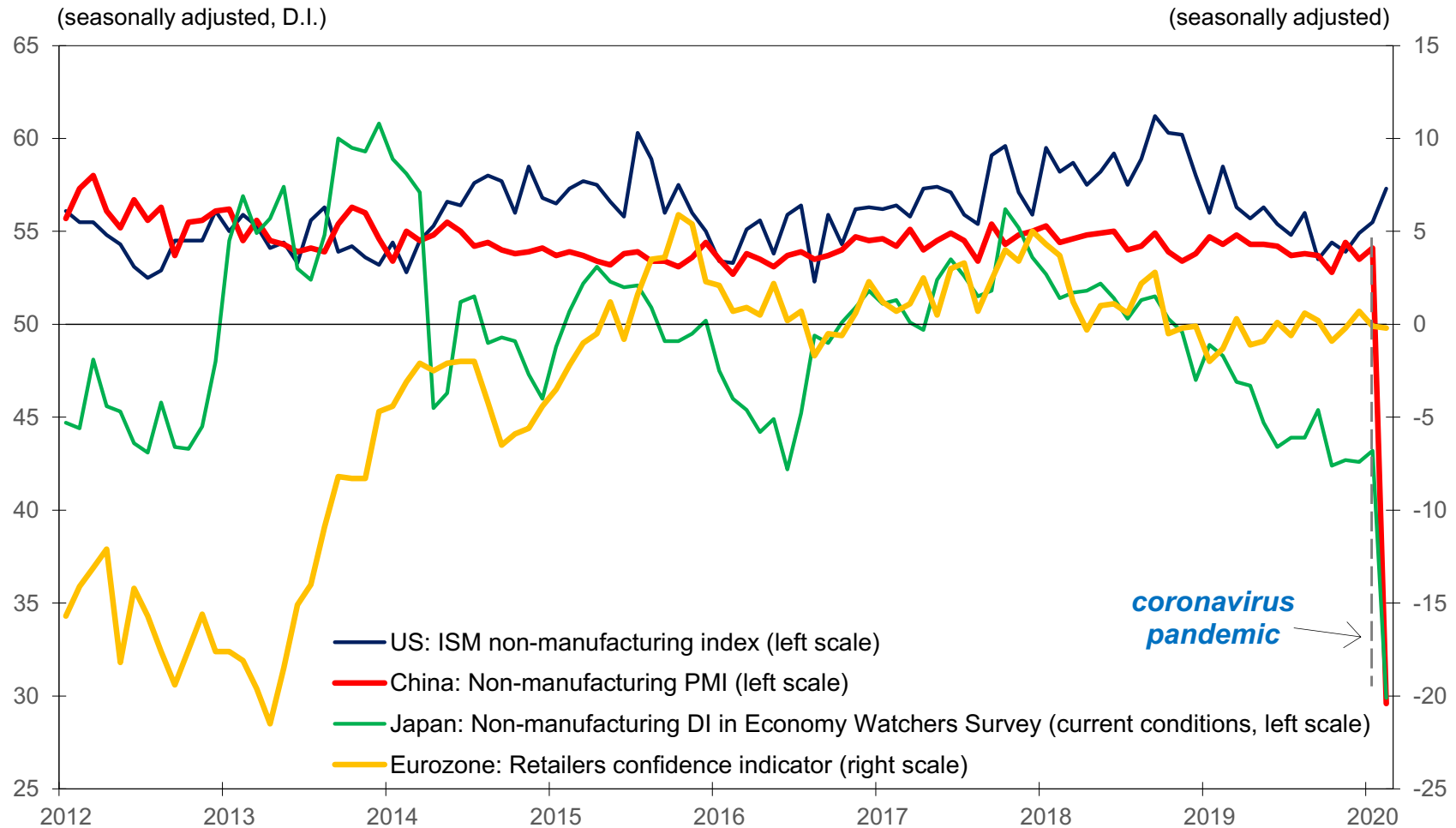


Source: Nomura Research Institute, based on data from Conference Board, National Bureau of Statistics of China, Cabinet Office of Japan, and European Commission.

Exhibit 2. Synchronized Global Collapse Triggered by Coronavirus Pandemic

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Non-manufacturing sentiment in Japan, US, Europe and China

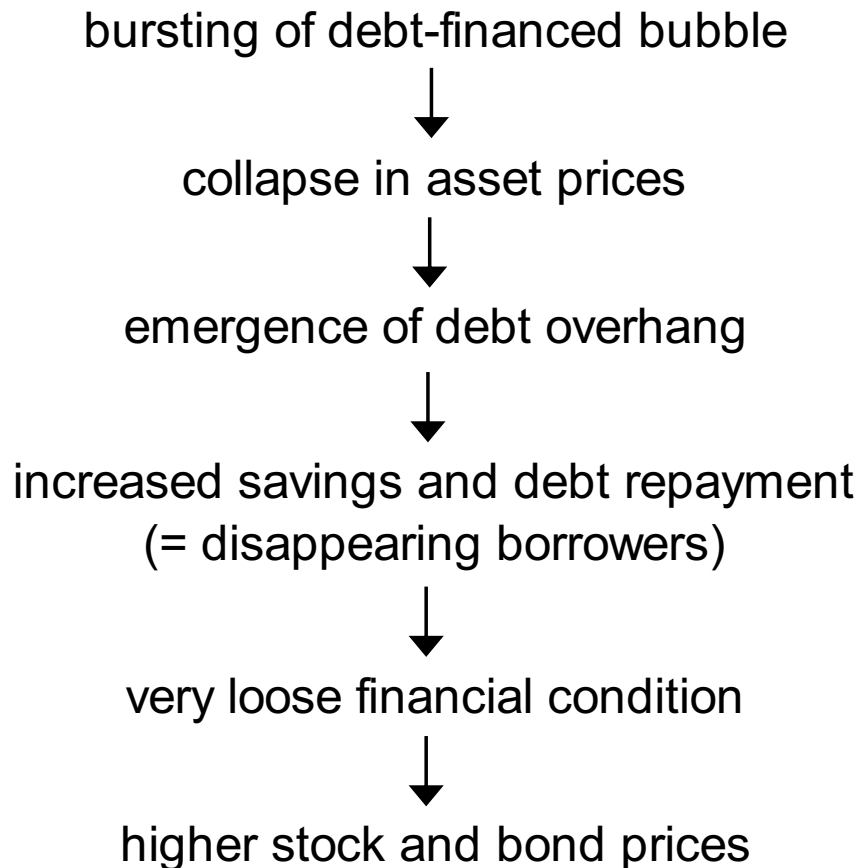


Source: Nomura Research Institute, based on data from Conference Board, National Bureau of Statistics of China, Cabinet Office of Japan, and European Commission.

Exhibit 3. Contrast between Balance Sheet Recession and Pandemic Recession (I): the Cause

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Balance sheet recession **2008 → 2019**



Pandemic recession **2020 → ?**

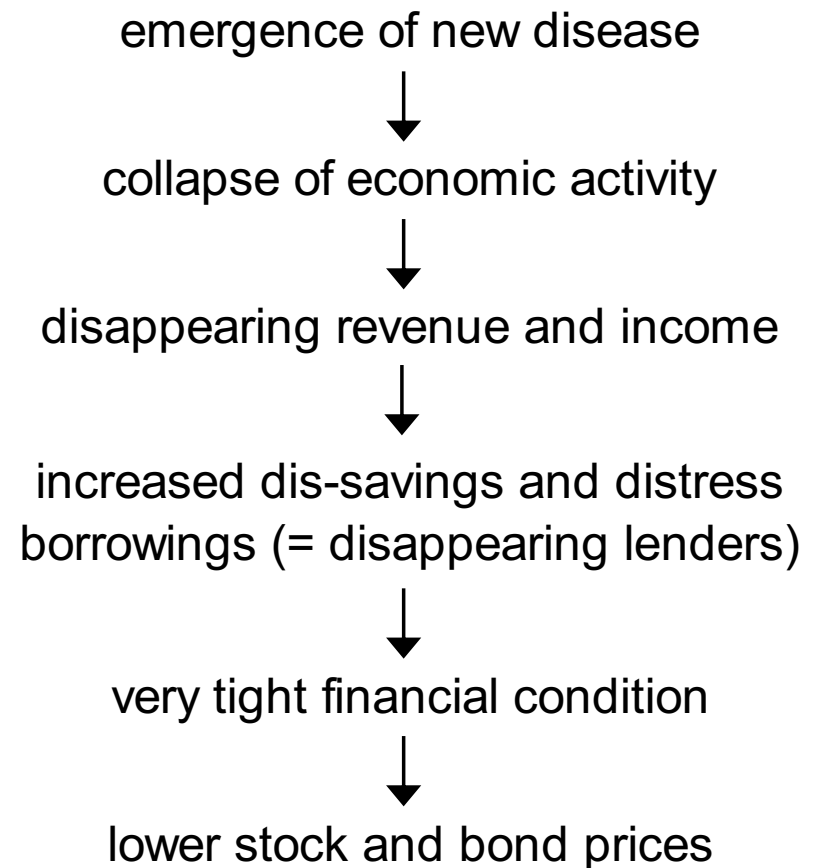


Exhibit 4. Contrast between Balance Sheet Recession and Pandemic Recession (II): the Solution

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Balance sheet recession
2008 → 2019

Pandemic recession
2020 → ?

key driver(s)

disappearing borrowers

disappearing income & lenders

solution

government's fiscal policy must act as "borrower (and spender) of last resort" to put excess private savings back into the income stream

central bank's monetary policy is effective in restoring financial stability, but not effective in restoring economic growth

government's fiscal policy must supplement household and business incomes until medical solutions are found

central bank's monetary policy must operate as "lender of last resort" to calm the markets and lower the borrowing cost for government and businesses

Exhibit 5. Commercial Paper Rate in US

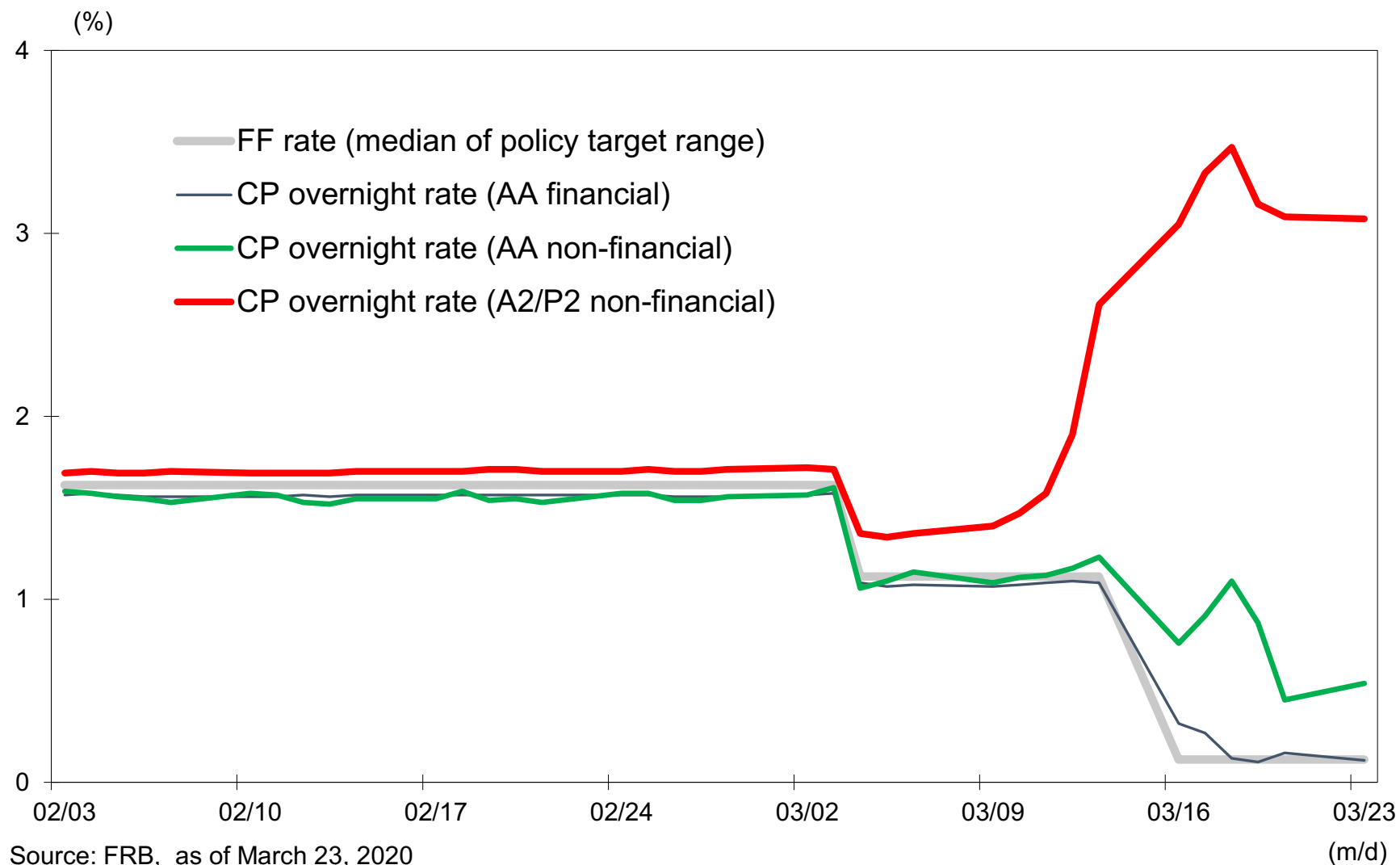
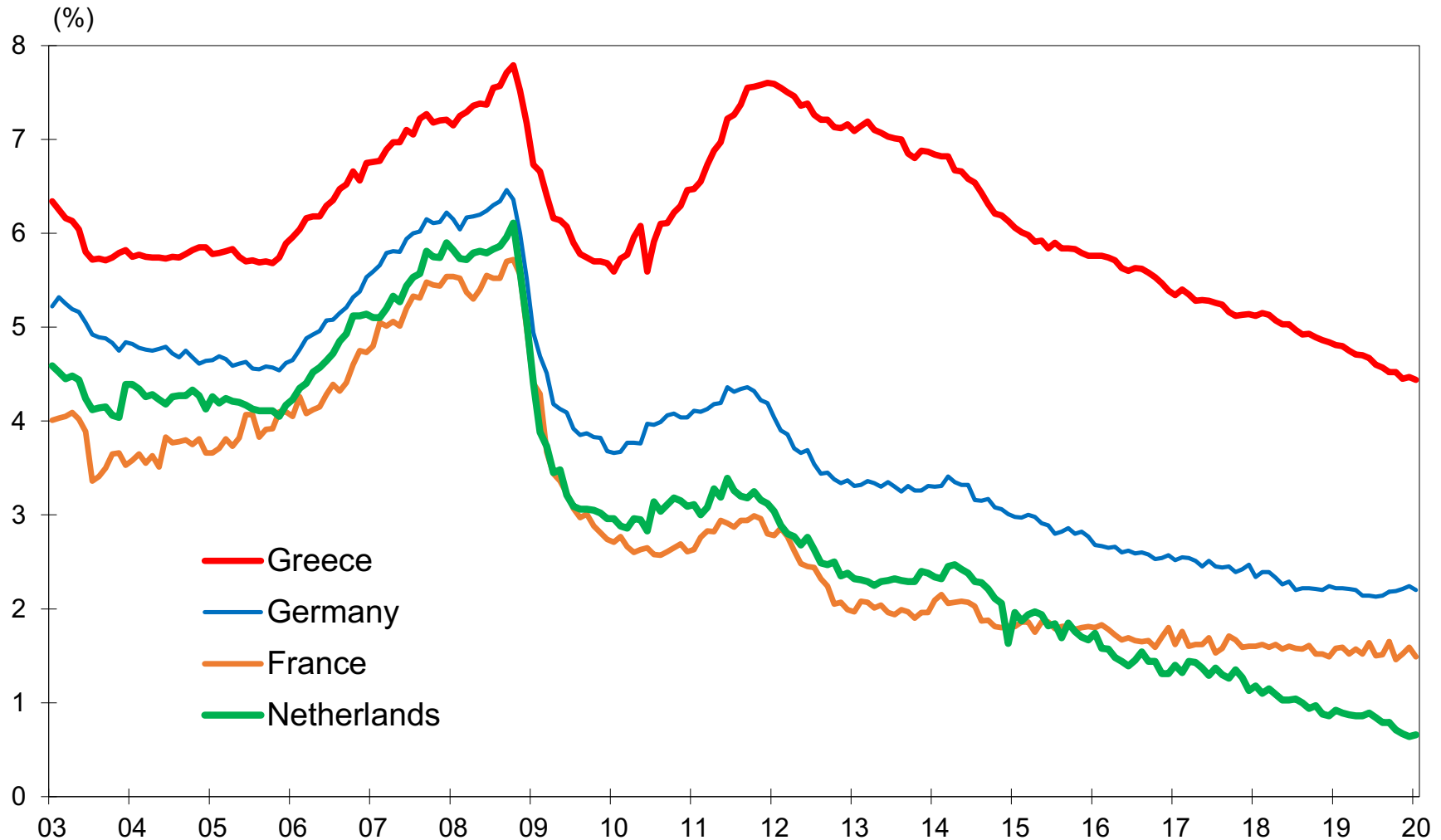


Exhibit 6. Greek Bank Loan Rate to Non-Financial Corporations

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Bank Loans to Non-Financial Corporations up to 1yrs



Source: ECB

Exhibit 7. Trade Theories Inadequately Taught (1)

What we were taught:

“Free trade creates both winners and losers in a country. But the gains the winners obtain is so much larger than the losses the losers sustain, so the economy as a whole gains much from free trade.”

What was in fact true:

“Free trade creates both winners and losers in a country. But the gains the winners obtain is so much larger than the losses the losers sustain *if* the trade is *balanced*. If the country continues to run deficits, the number of losers may grow until they are numerous enough to elect protectionist leaders.”

Exhibit 8. Trade Theories Inadequately Taught (2)

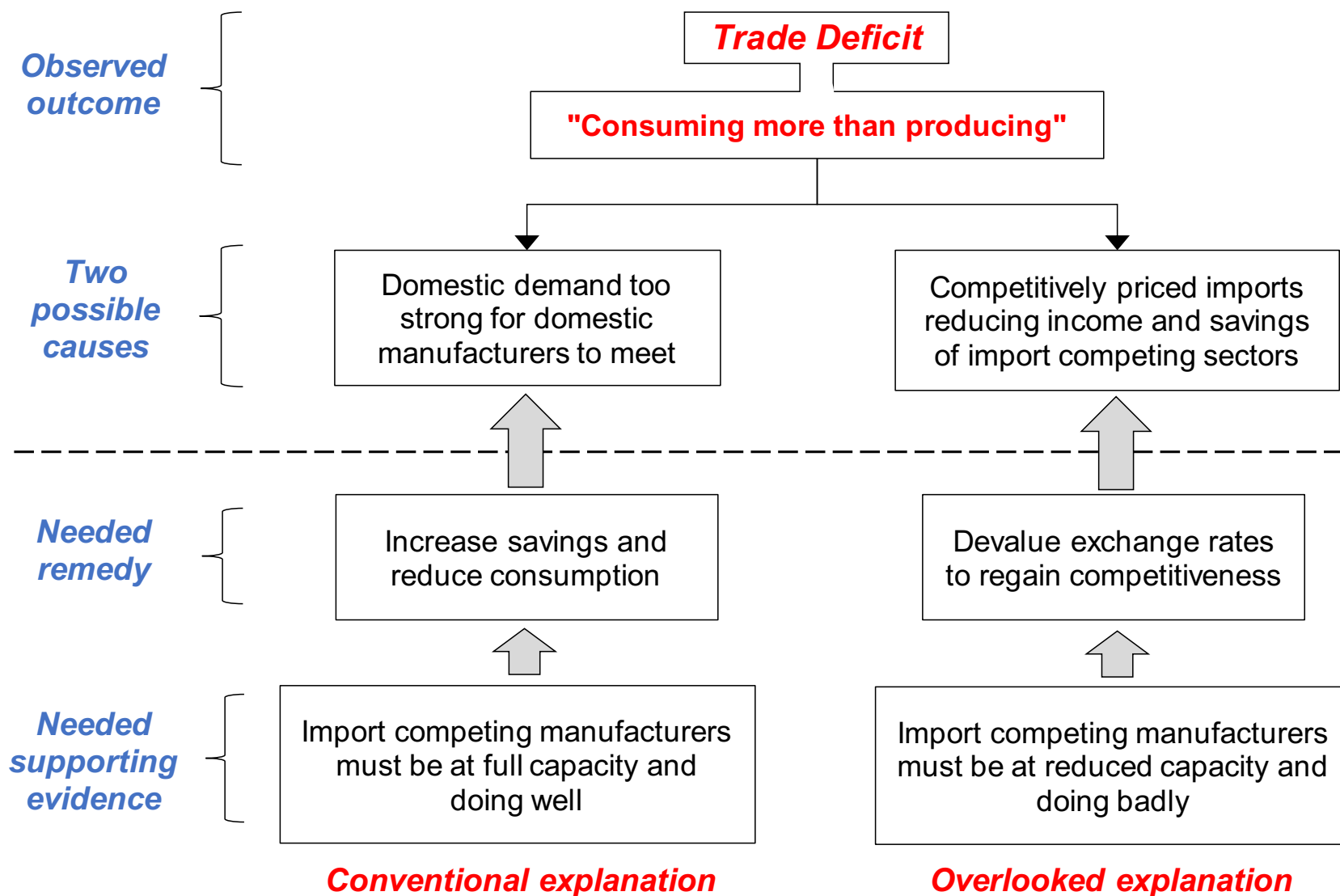
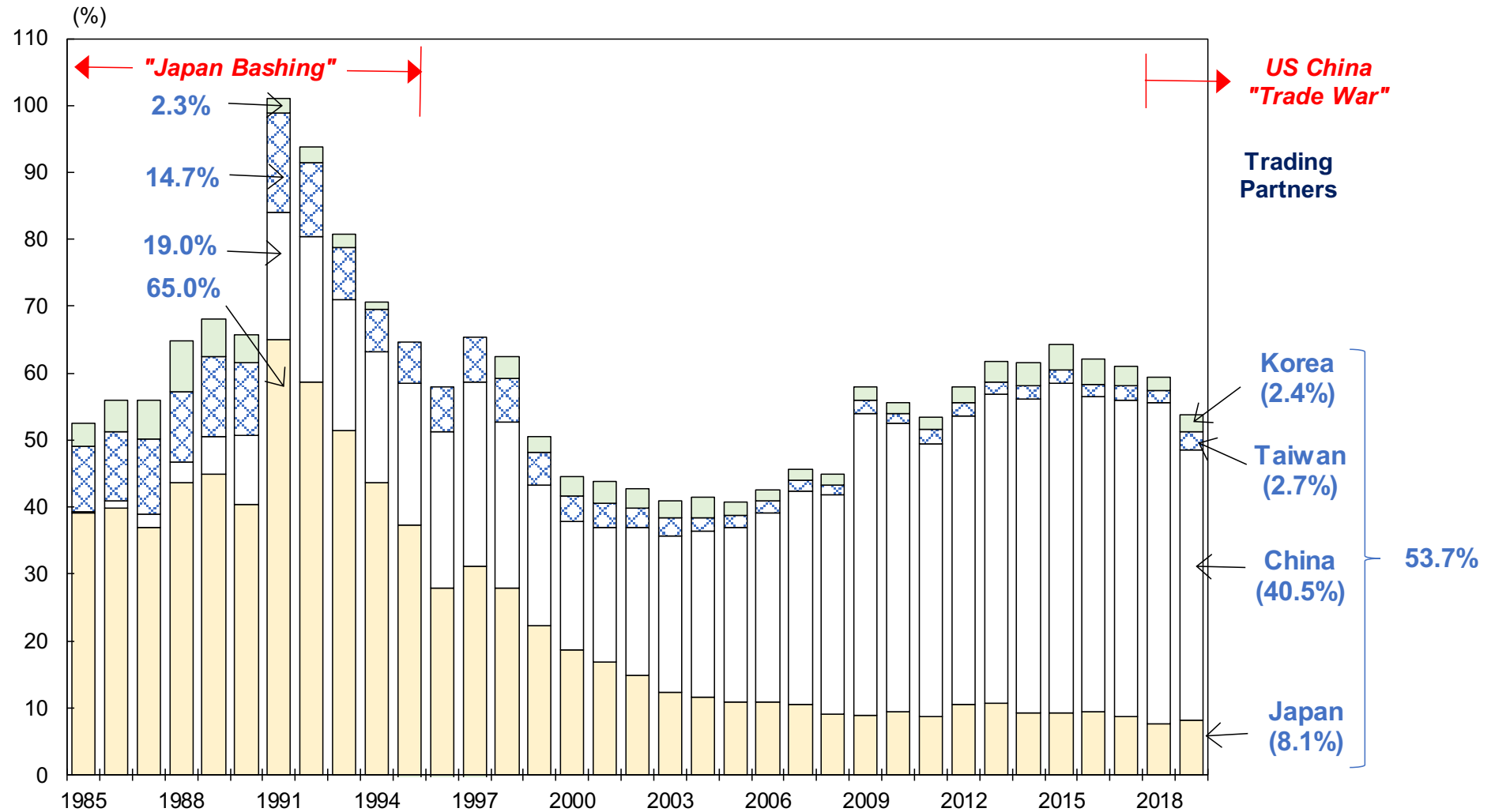


Exhibit 9. Share of East Asia in US Trade Deficits



Source: US Census Bureau

Exhibit 10. Losers of Free Trade now Numerous enough to Elect Trump President

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Election U.S. World Entertainment Health Tech ...

Video Live Shows ... Log In



232 Hillary Clinton

270 of 538 electoral votes needed to win

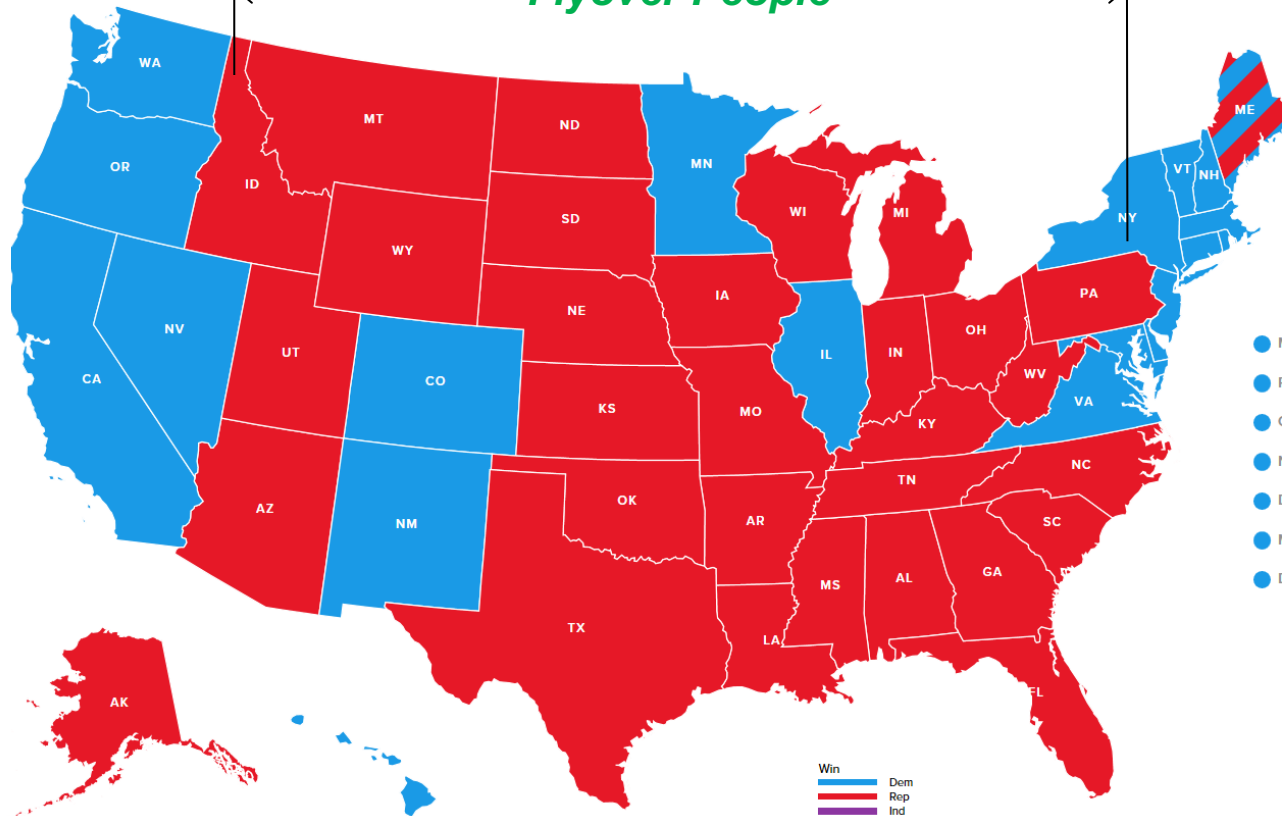


Donald Trump 306

Projected Winner



"Flyover People"



- Promote fairness in US society
- Maintain open society
- Maintain postwar alliances

- Boost economic growth with infrastructure investment, deregulation, and simplified tax code
- Review free trade framework
- Review postwar alliances

Source: ABC News website, November 30, 2016

Win
Dem
Rep
Ind
Awaiting Results
No Election
*Vote data compiled by the AP



Exhibit 11. “Two Governments” in Washington on China

President Trump

Need a level playing field to reduce US trade deficit with China. President Xi-Jinping, a strong leader, is a worthy counterpart for negotiations.

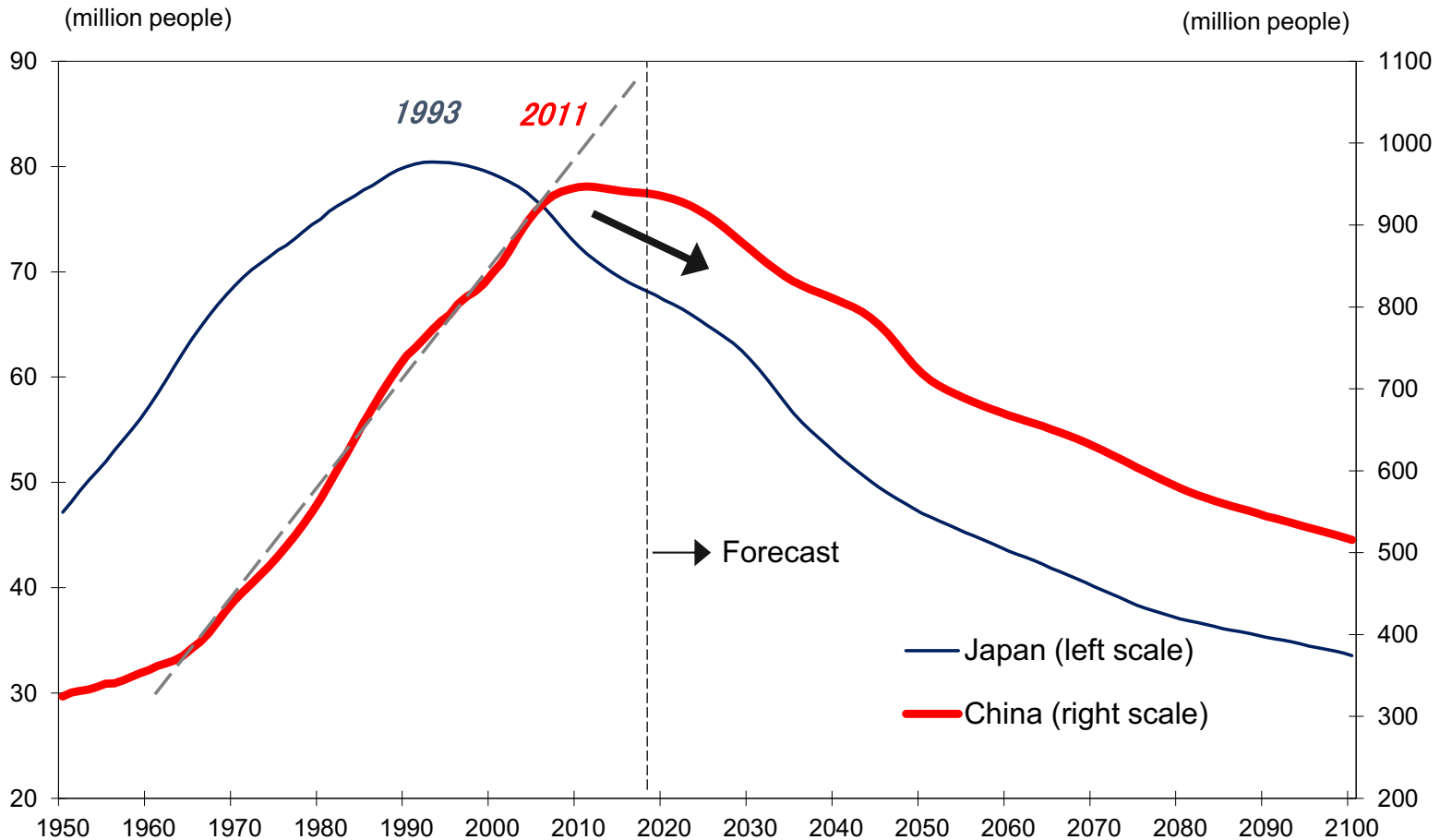
The rest of Washington

China led by President Xi betrayed the US by moving away from open society and pushing for territorial expansions in South China Sea and elsewhere. All efforts are needed to contain the Chinese threat to the post-war global order.

Exhibit 12. China May Grow Old before It Grows Rich: Working Age Population* Has Started to Contract in China

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The Working Age Population (15-59) in China and Japan, Actual and Forecast

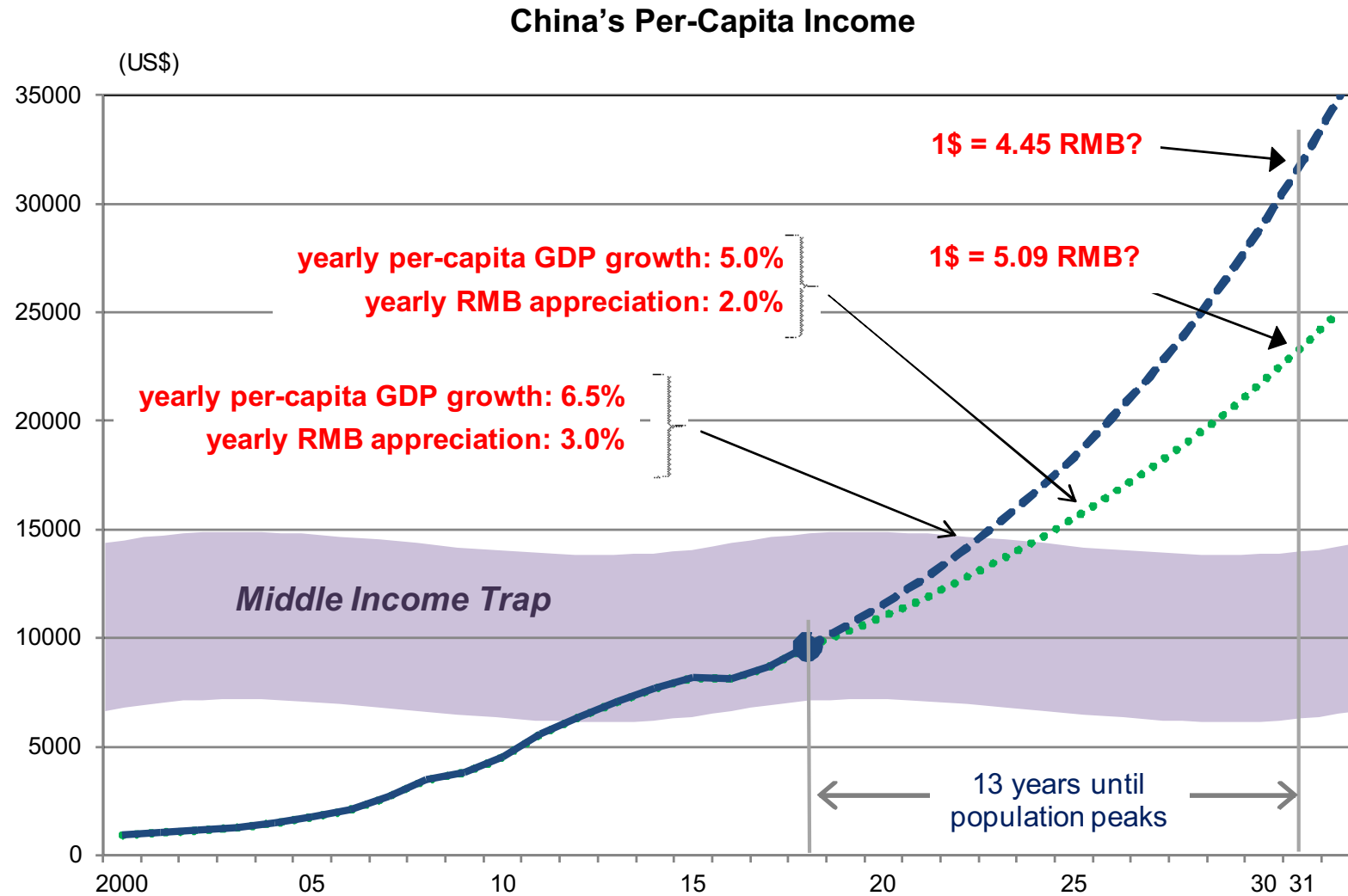


Note: The Chinese National Statistical Office defines the working age population as the people from 15 to 59.

Source: United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019, Online Edition.

Exhibit 13. China only Has 13 Years to Reach First-World Living Standard

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Source: Nomura Research Institute, based on the data from IMF, *World Economic Outlook Database*, April 2019

Exhibit 14. Economic Textbooks Covered only Two out of Four Macro Economic Possibilities

		Borrowers (=investors)	
		Yes	No
Lenders (=savers)	Yes	1	3
	No	2	4

advanced economies are all here

Textbook world
(private sector
maximizing profits)

Overlooked other-half
(private sector
minimizing debt)

Exhibit 15. Two Reasons for Not Borrowing Money

- 1) Bursting of a debt-financed bubble left the private sector with debt-overhang
(=balance sheet recession)

- 2) Return on capital higher in emerging countries
(=pursuing economies) than at home
(=pursued economies)

Exhibit 16. Private Sector¹ Borrowers Disappeared^{2, 4} after 2008

Average Annual Private Sector Financial Surplus(+) or Deficit(-)

(% of GDP)

	5 years to Q3 2008	from Q4 2008 to present ⁴	latest 4 quarters
UK	-0.15	1.33	-3.41
US	3.63	6.20	6.28
Canada	-0.02	-1.84 ⁵	-2.55
Japan	7.62 ²	8.01	5.48
Korea	-1.80	3.24	1.31
Australia	-7.35	0.55	1.49
Eurozone	1.25	4.51	3.09

(% of GDP)

	5 years to Q3 2008	from Q4 2008 to present ⁴	latest 4 quarters
Germany	8.42 ³	6.50	2.98
France	2.84	3.37	1.33
Italy	1.14	3.26	5.32
Spain	-7.93	7.18	5.06
Greece	0.54	0.62	-4.68
Ireland	-4.94	3.01	-20.39
Portugal	-3.79	4.15	0.14

1. private sector = household + corporate + financial sectors

2. Entered balance sheet recession in 1990

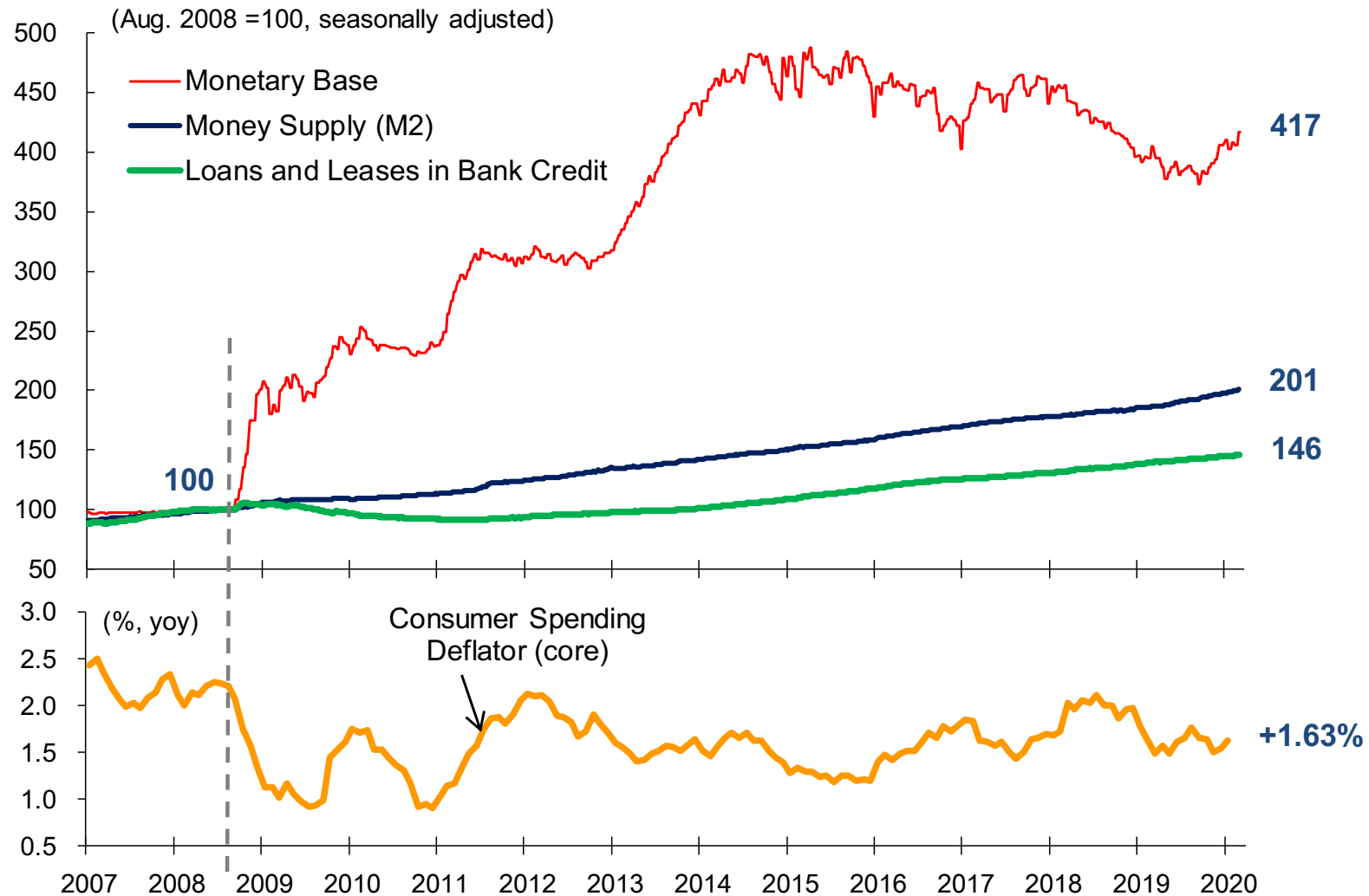
3. Entered balance sheet recession in 2000

4. Until Q3 2019. Only for US and Japan, until Q4 2019.

5. Except Canada

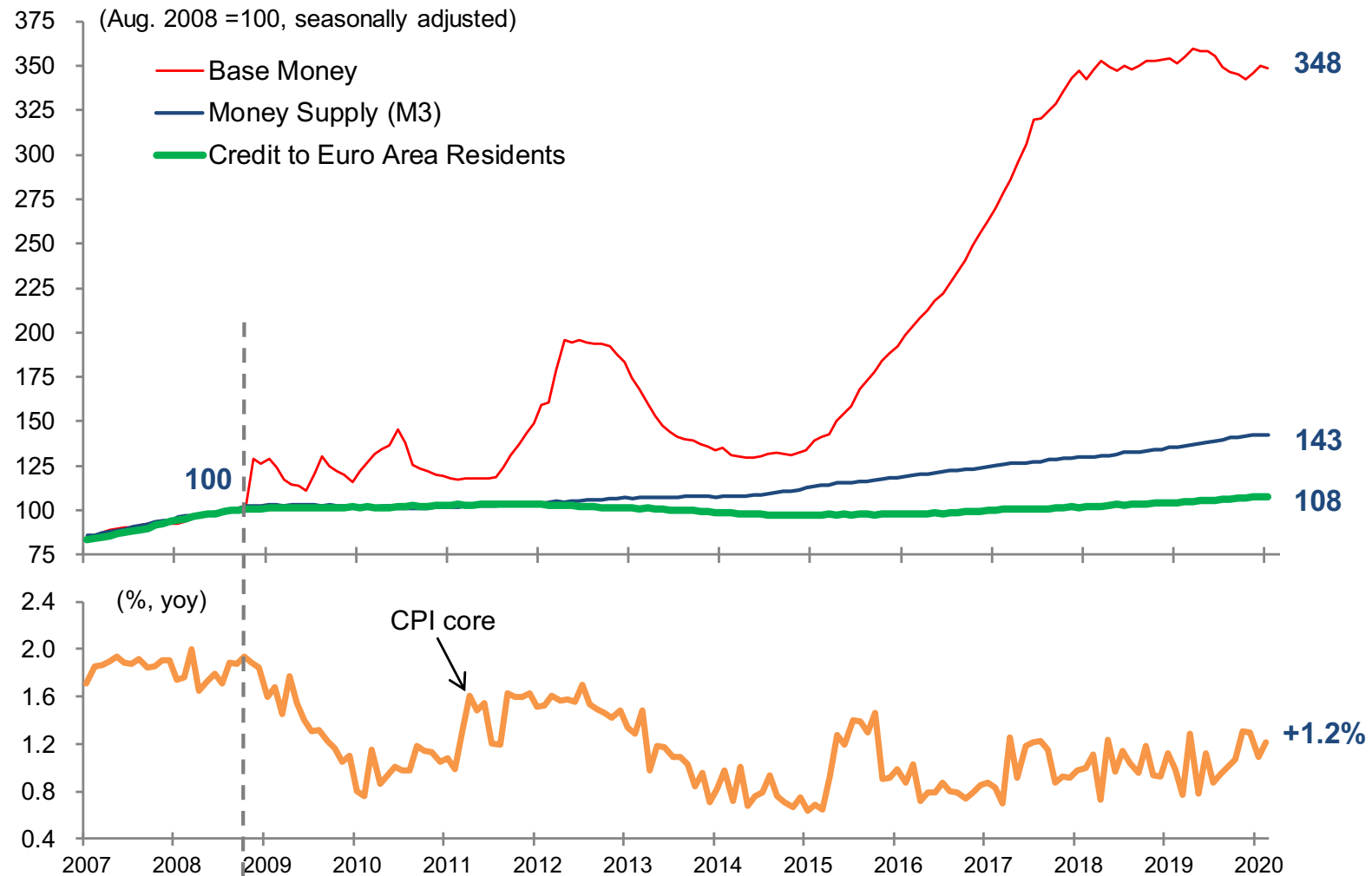
Source: Nomura Research Institute, based on these countries' flow of funds and national accounts data

Exhibit 17. Drastic Liquidity Injections Resulted in minimal Increases in Money Supply and Credit (I): US



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

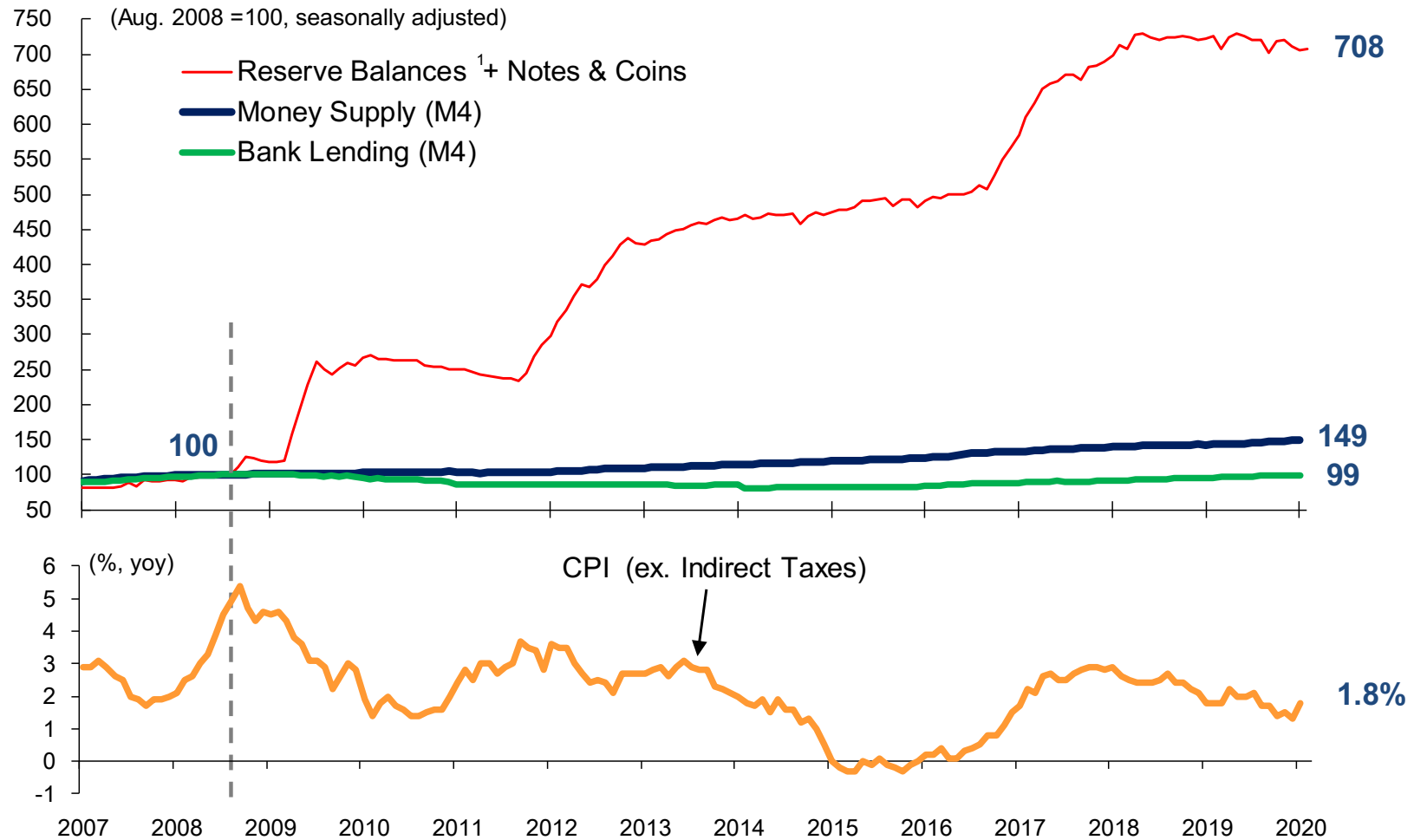
Exhibit 18. Drastic Liquidity Injections Resulted in minimal Increases in Money Supply and Credit (II): Eurozone



Note: Base money's figures are seasonally adjusted by Nomura Research Institute.

Sources: European Central Bank; Eurostat

Exhibit 19. Drastic Liquidity Injections Resulted in minimal Increases in Money Supply and Credit (III): UK

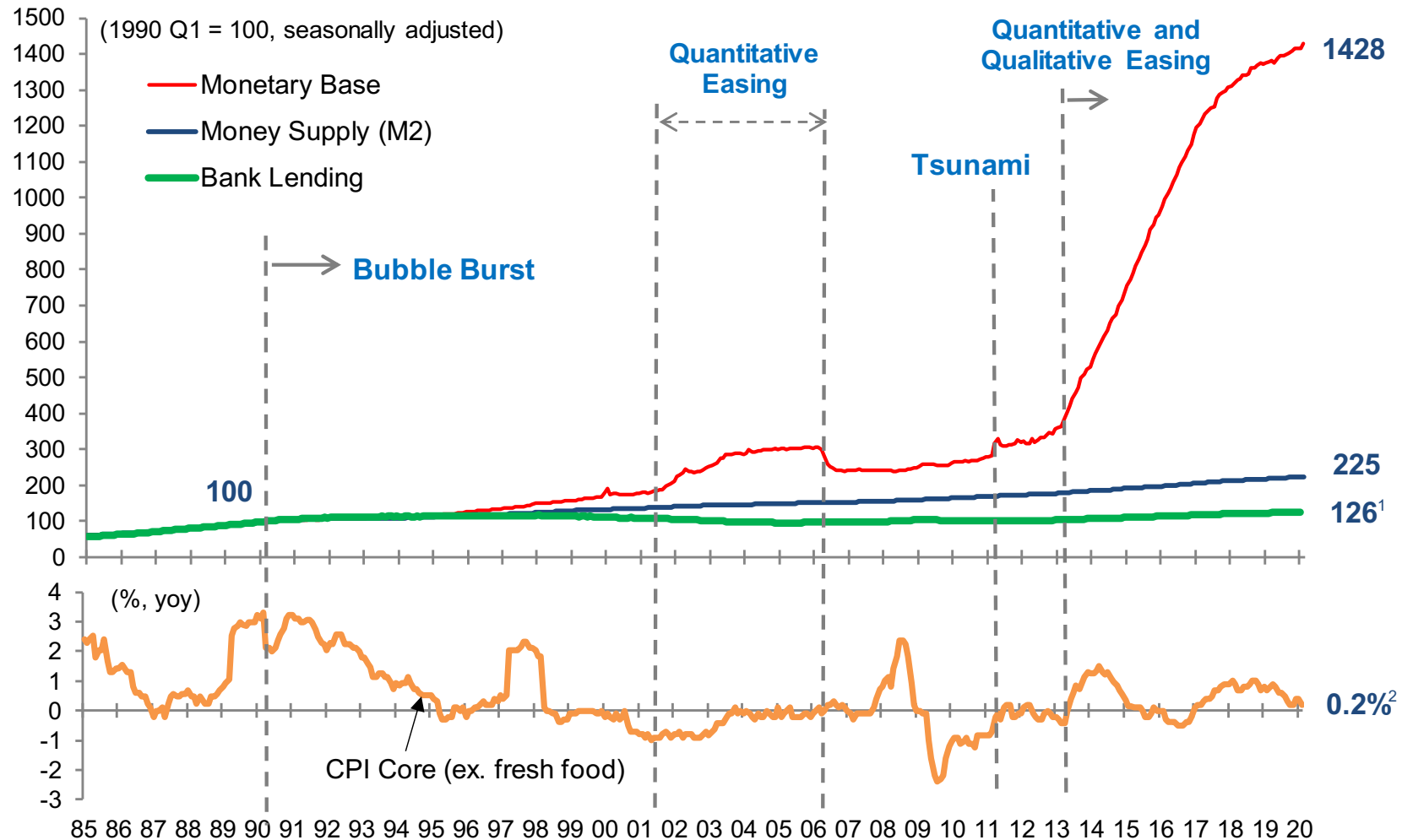


Notes: 1. Reserve balances data are seasonally unadjusted.

2. Money supply and bank lending data exclude intermediate financial institutions.

Sources: Bank of England; Office for National Statistics, UK

Exhibit 20. Drastic Liquidity Injections Resulted in minimal Increases in Money Supply and Credit (IV): Japan

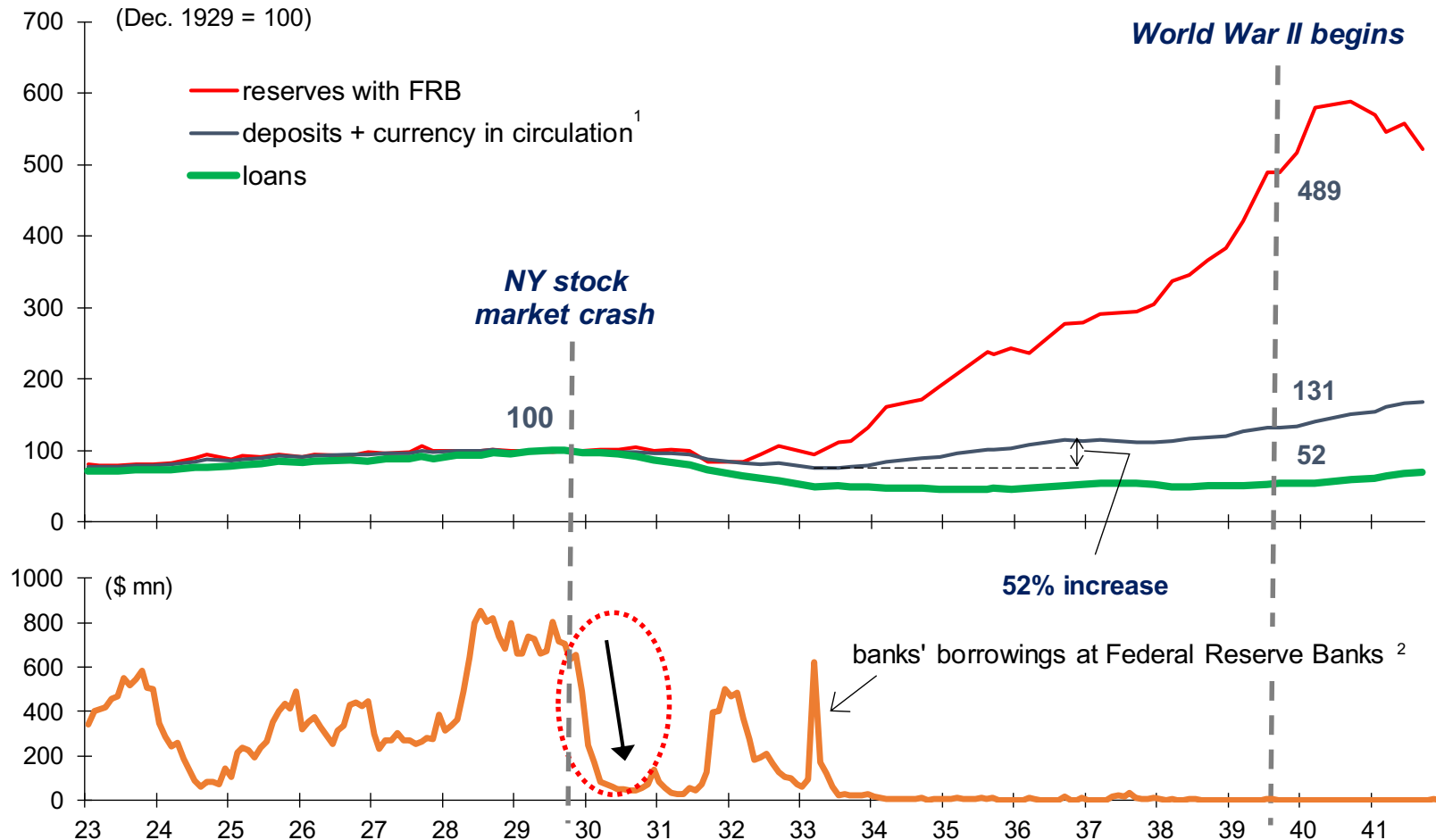


Notes: 1. Figures for bank lending are seasonally adjusted by Nomura Research Institute.

2. Excluding the impact of consumption tax.

Source: Bank of Japan

Exhibit 21. 1930's Great Depression Was also a Balance Sheet Recession (= Cases 3, 4)

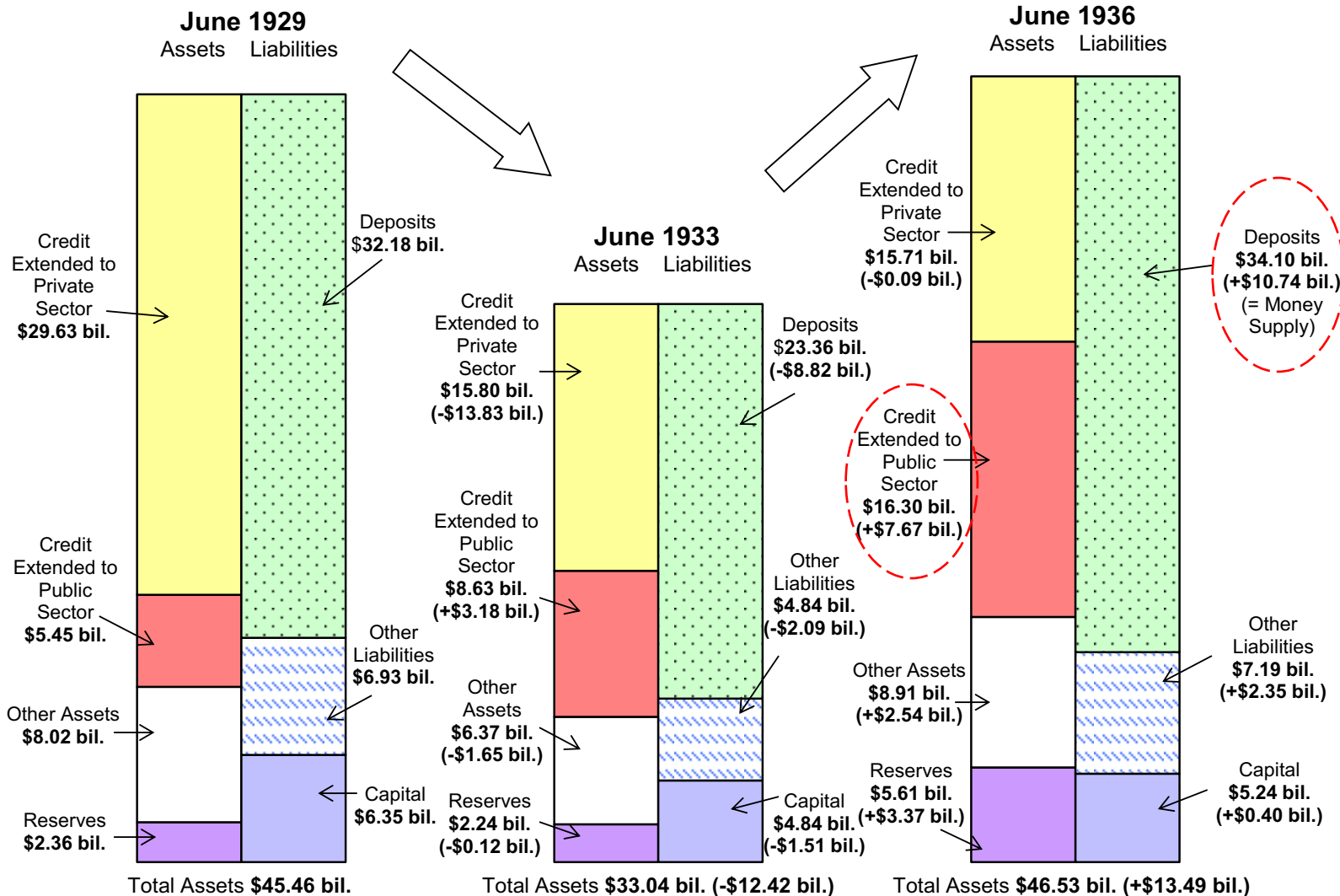


Notes: 1. deposits = demand deposits adjusted + other time deposits

2. Only this data series is based on member banks in 101 leading cities. All other data series are for all member banks.

Source: Nomura Research Institute, based on the data from Board of Governors of the Federal Reserve System (1976), *Banking and Monetary Statistics 1914-1941*, pp.72-75 pp.138-163 and pp.409-413

Exhibit 22. Post-1933 US Money Supply Growth Made Possible by Government Borrowings

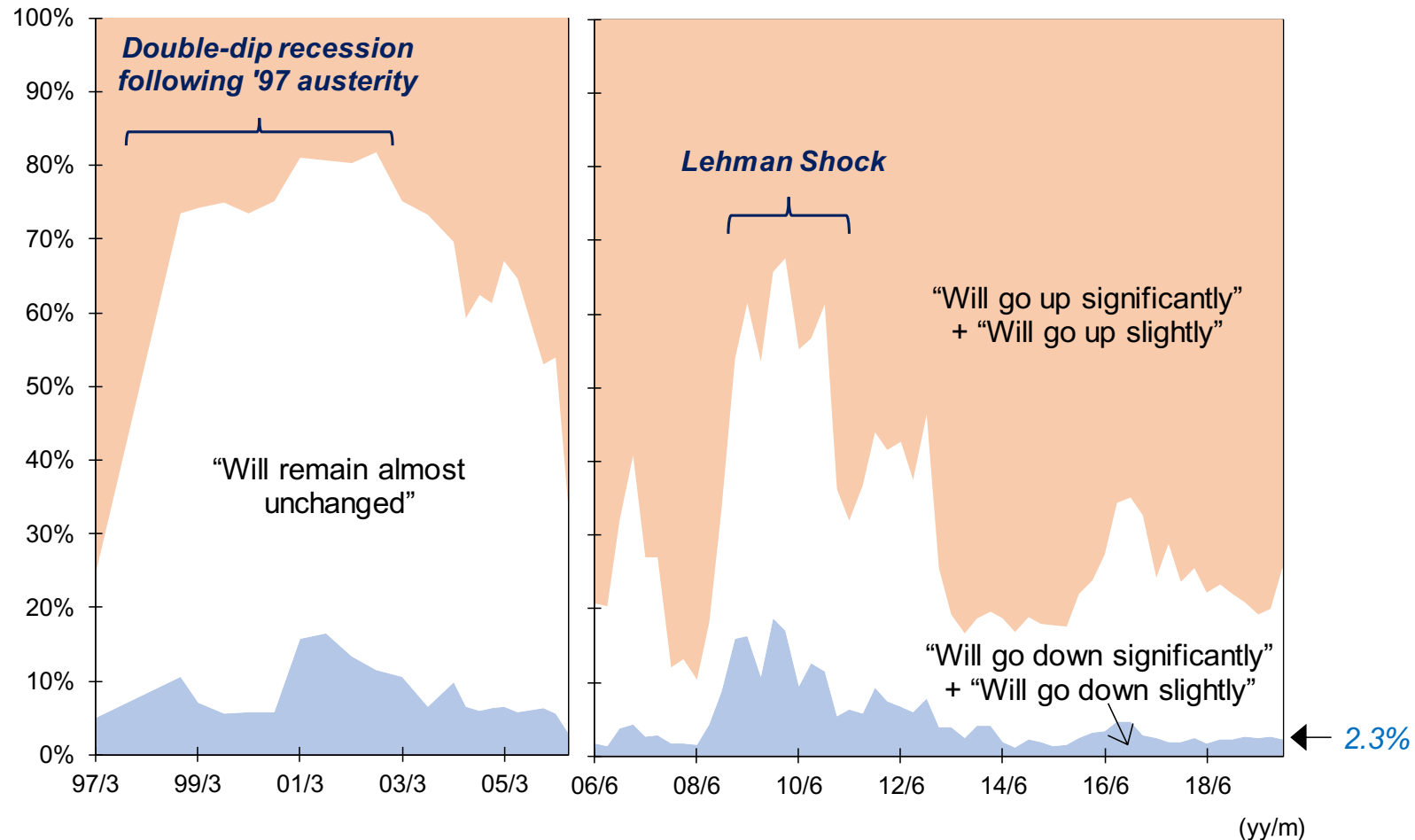


Source: Board of Governors of the Federal Reserve System (1976), *Banking and Monetary Statistics 1914-1941*, pp. 72-79

Exhibit 23. Japanization Myth (1): Vast Majority of Japanese Have Never Expected Deflation

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Answer to question: How will prices change over the next year?



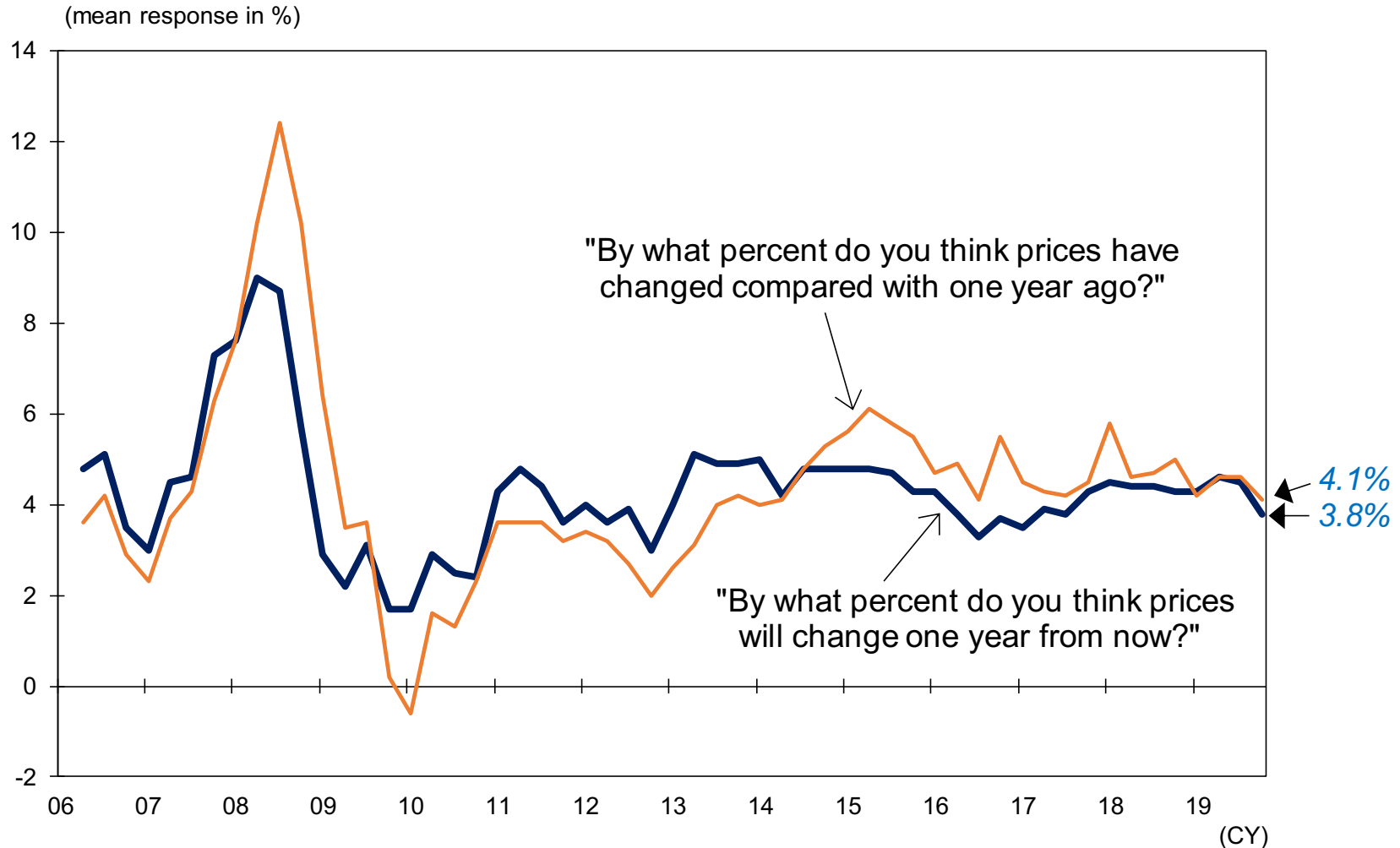
Note: Data are discontinuous because survey methodology and wording were changed in June 2006.

Question asks respondents to ignore changes in prices due to consumption tax hike.

Source: Nomura Research Institute, based on BOJ's Opinion Survey on the General Public's Views and Behavior.

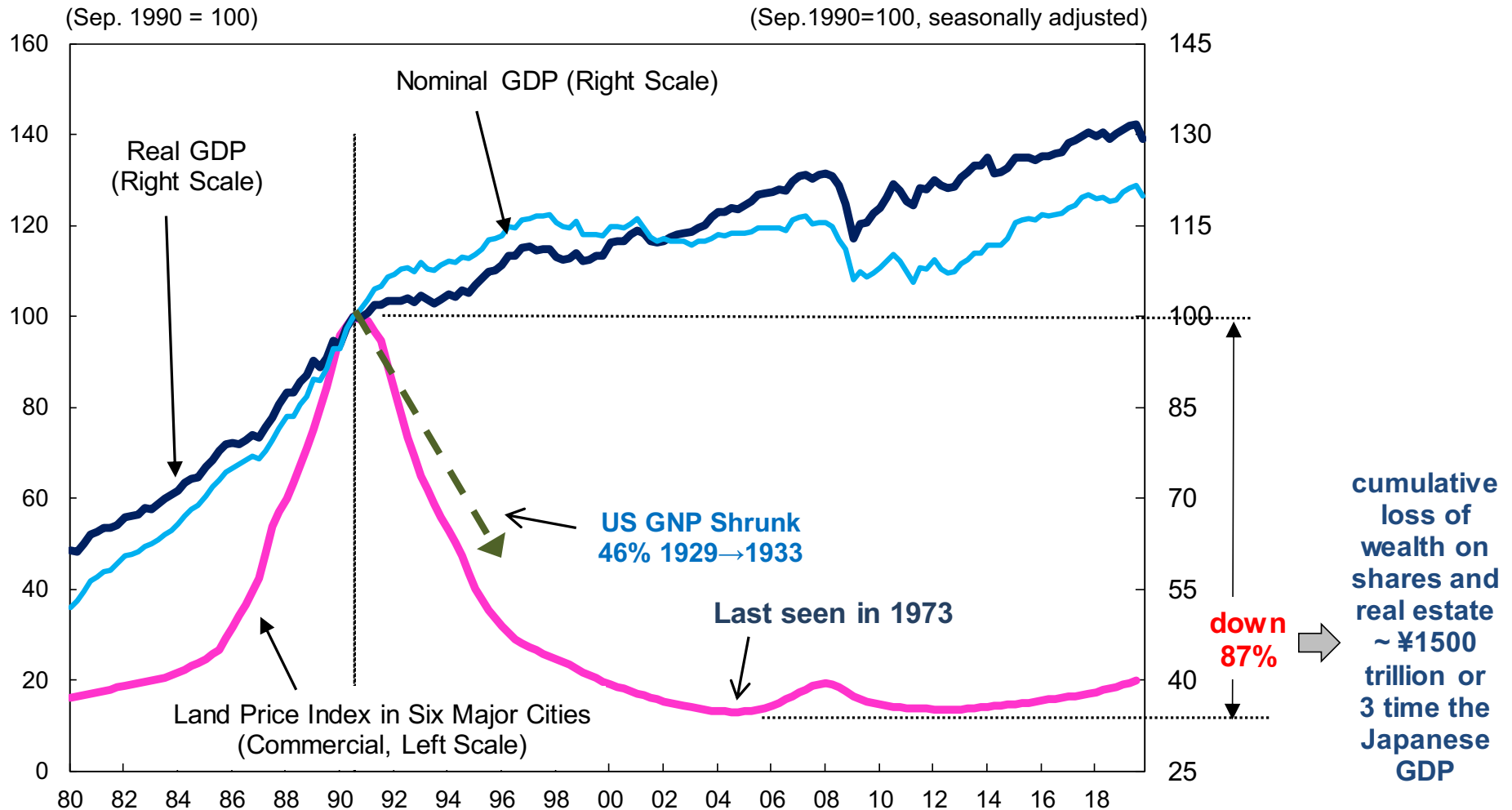
Exhibit 24. Japanization Myth (2): Vast Majority of Japanese Have Never Expected Deflation

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Source: Nomura Research Institute, based on BOJ's Opinion Survey on the General Public's Views and Behavior.

Exhibit 25. Japanization Myth (3): Japan's GDP Never Fell below the Bubble Peak despite De-leveraging

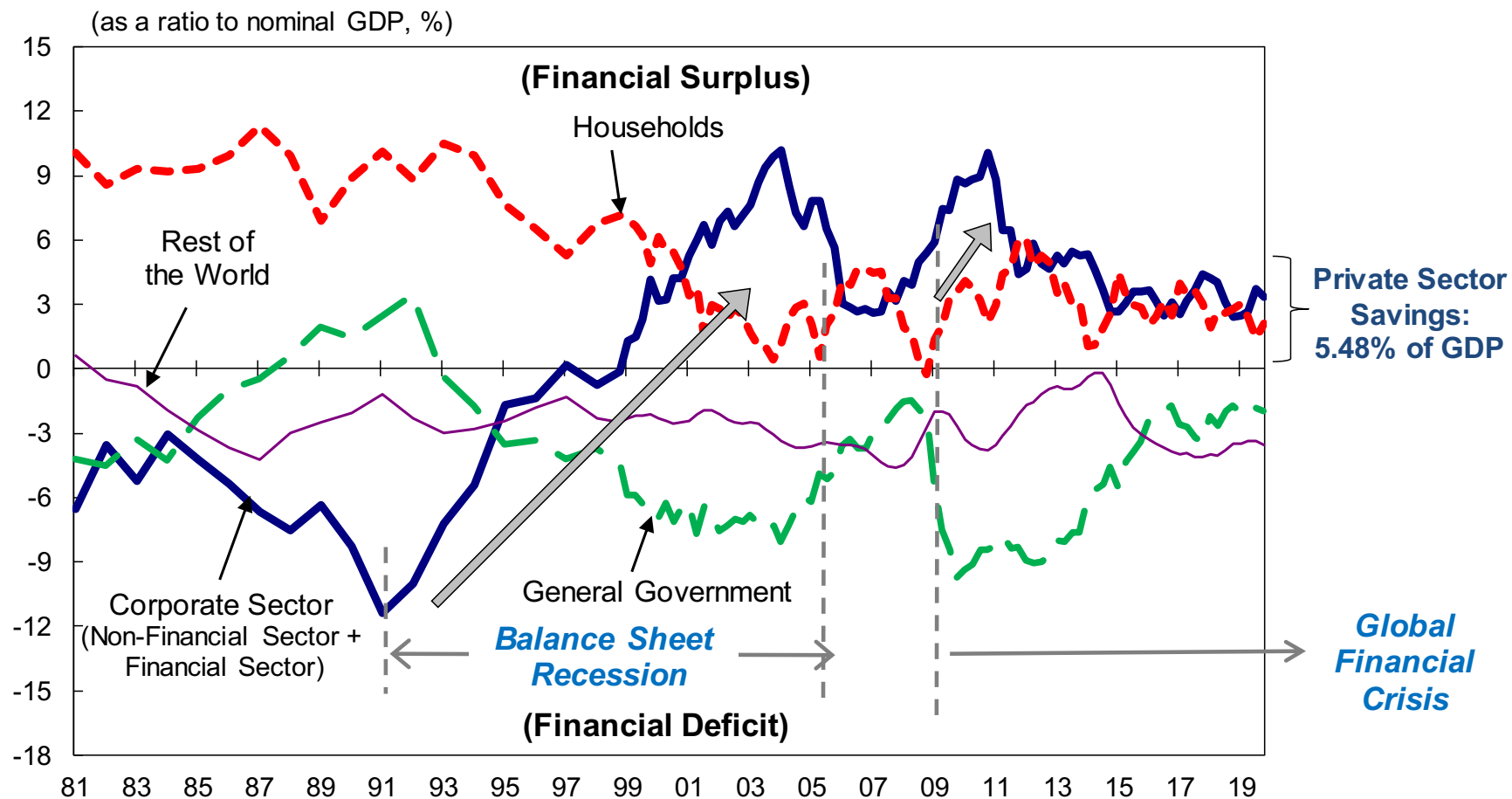


* GDP returning to the pre-bubble level of 1985

Sources: Cabinet Office, Japan; Japan Real Estate Institute

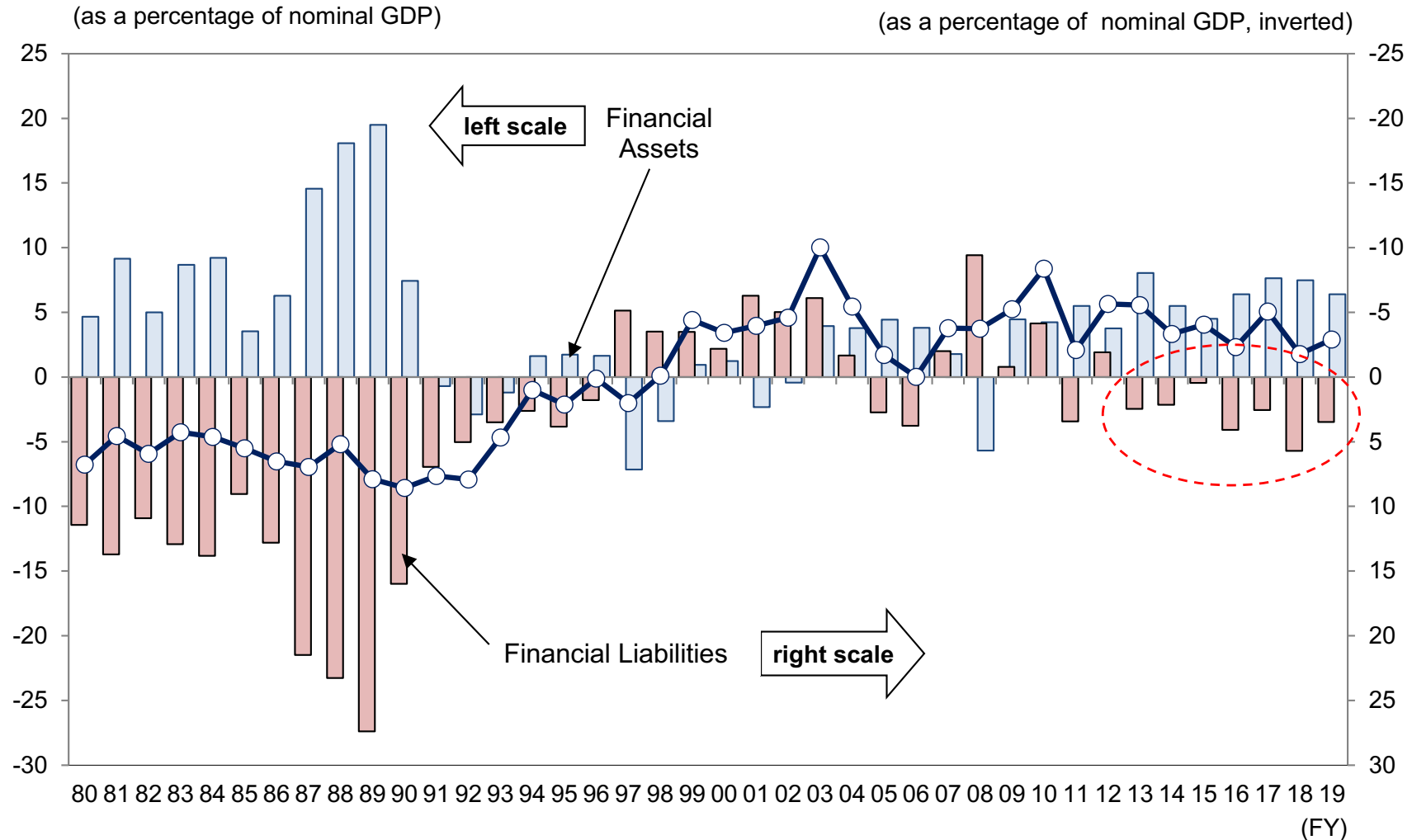
Exhibit 26. Japan's Challenge: Overcoming Problems of Debt Trauma and inferior Return on Capital relative to Emerging Markets

Financial Surplus or Deficit by Sector



Note: All entries are four-quarter moving averages. For the latest figures, four-quarter averages ending in 2019 Q4 are used.
Sources: Bank of Japan, *Flow of Funds Accounts*, and Government of Japan, Cabinet Office, *National Accounts*

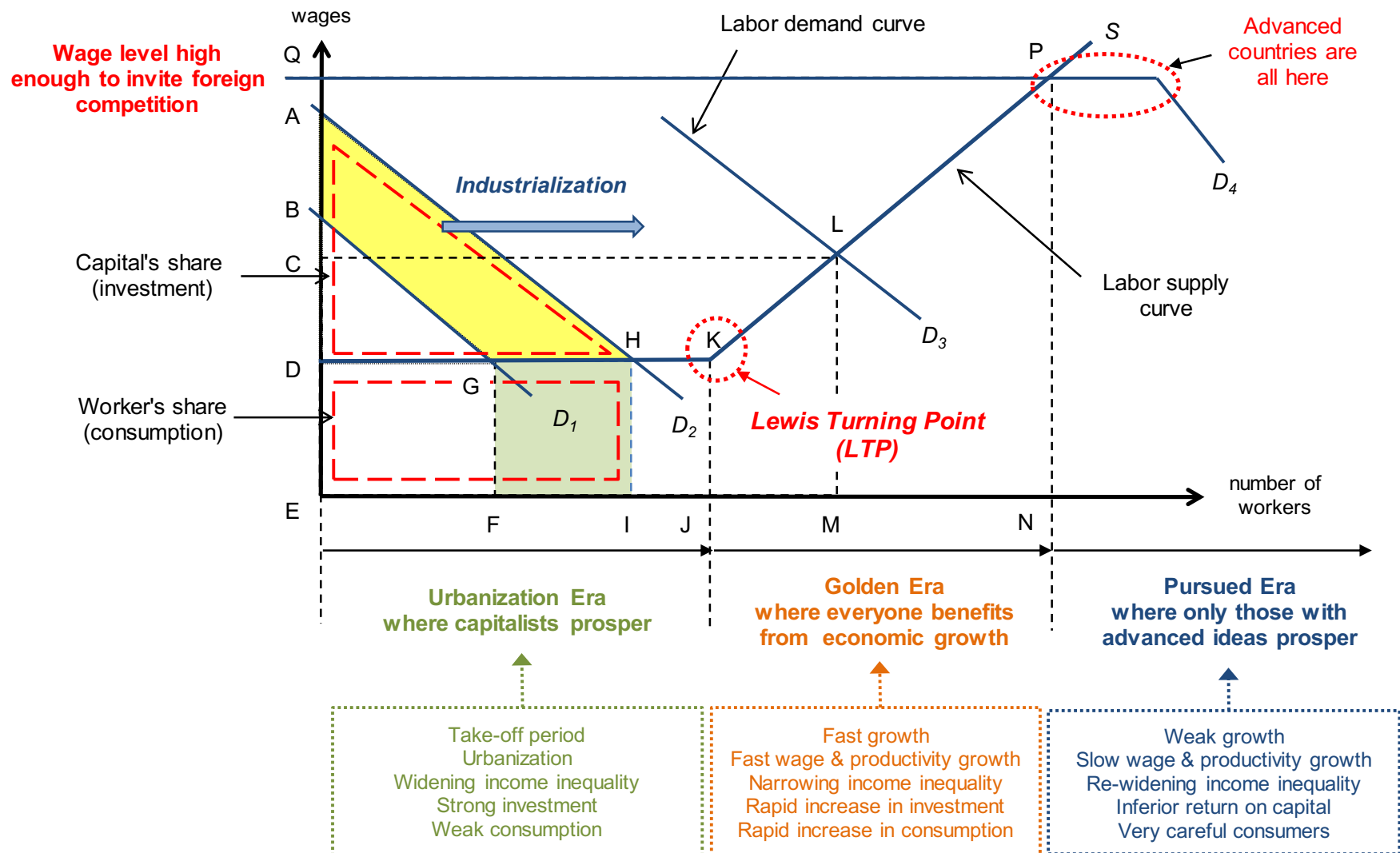
Exhibit 27. Japanese Non-financial Companies Are finally Beginning to Borrow, but Are still Net Savers



Note: For the latest figures, four-quarter averages ending in 2019 Q4 are used.

Sources: Bank of Japan, *Flow of Funds Accounts*, and Government of Japan, Cabinet Office, *National Accounts*

Exhibit 28. Labor Market in Three Stages of Economic Development



Source: Nomura Research Institute

Exhibit 29. Effectiveness of Monetary & Fiscal Policies in Three Stages of Economic Development

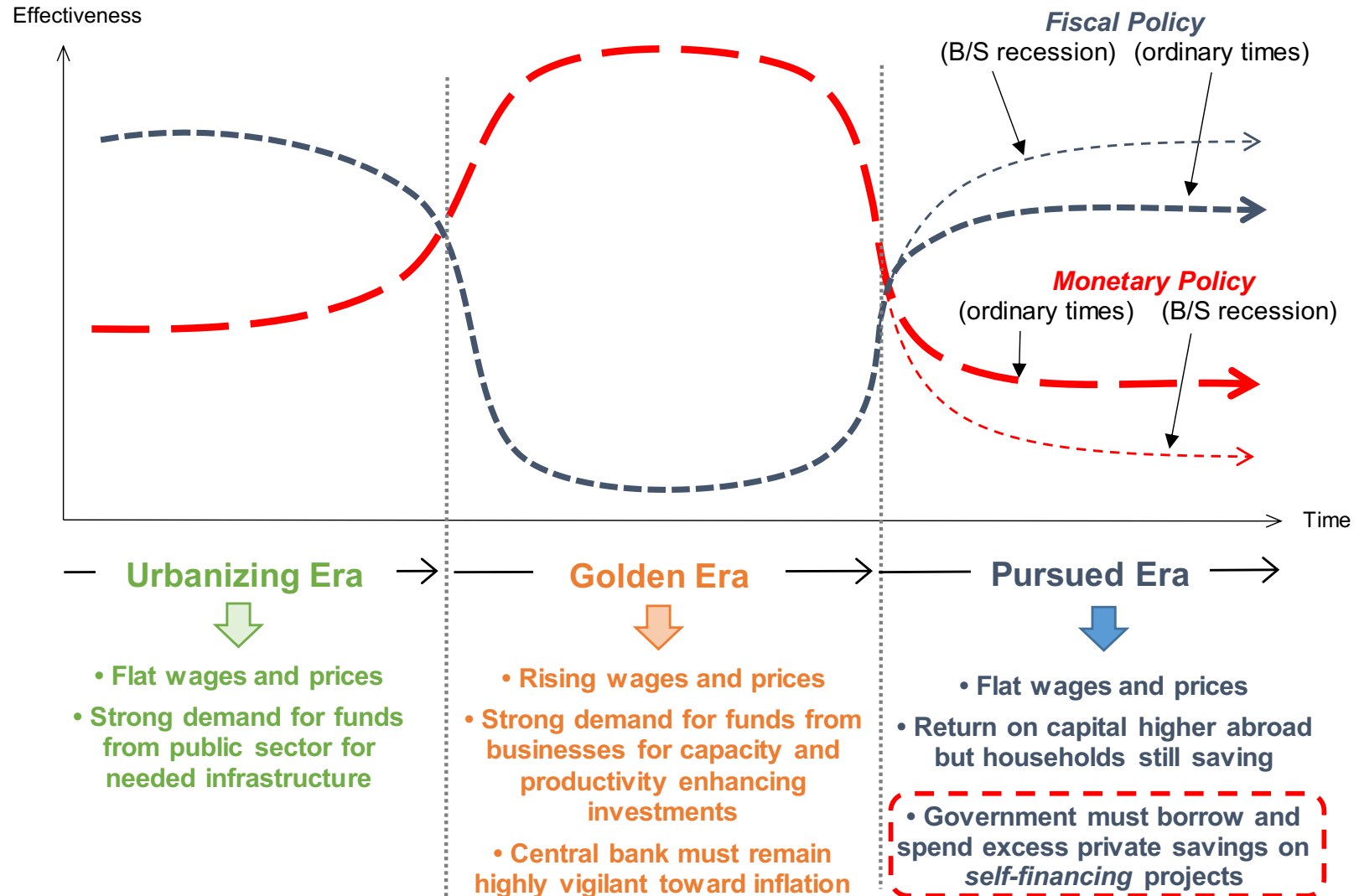
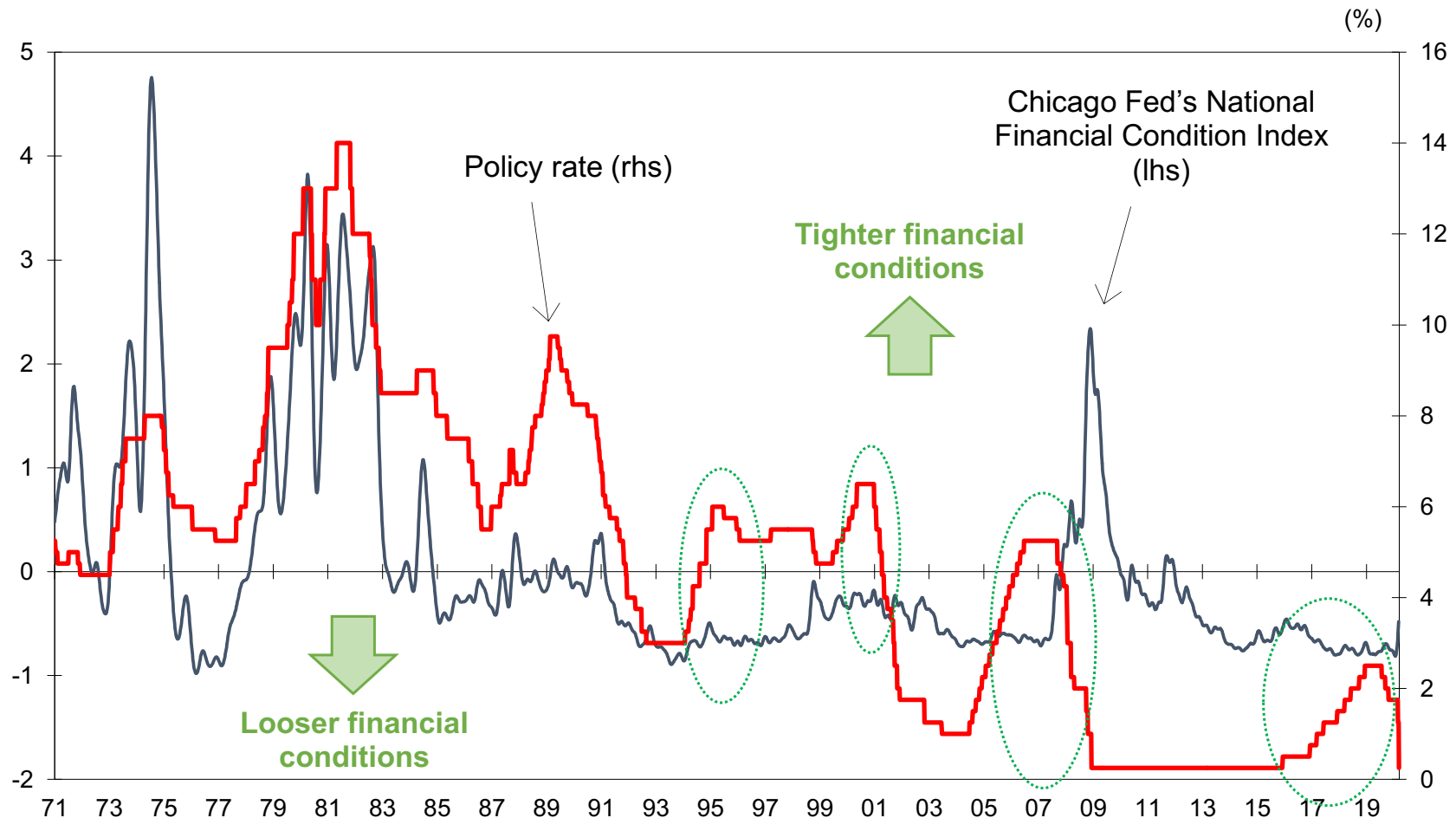


Exhibit 30. US Monetary Policy Has Grown Less Effective Starting in 1990s



Notes: In the Chicago Fed's national financial conditions index (NFCI), 0 represents the average from 1971 to the present.
 Prior to 1987, when the Fed began targeting fed funds rate, the policy rate in the graph refers to the official discount rate.
 Since the Fed began targeting a corridor of values for fed funds, the graph shows the top end of the Fed's target range.
 Sources: Board of Governors of the Federal Reserve System, The Federal Reserve Bank of Chicago, "National Financial Conditions Index"

Exhibit 31. Growth, Happiness and Maturing of Nations

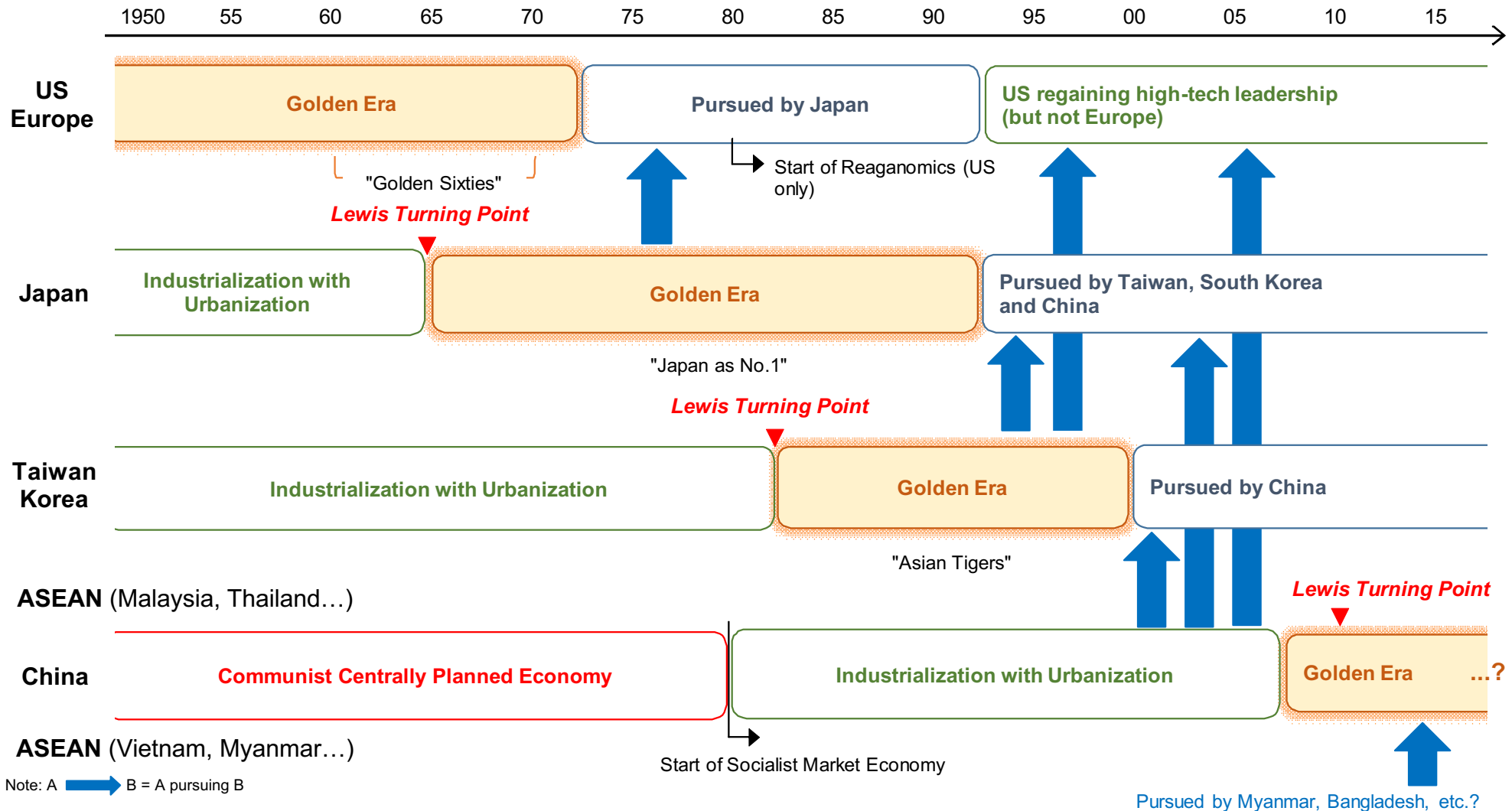
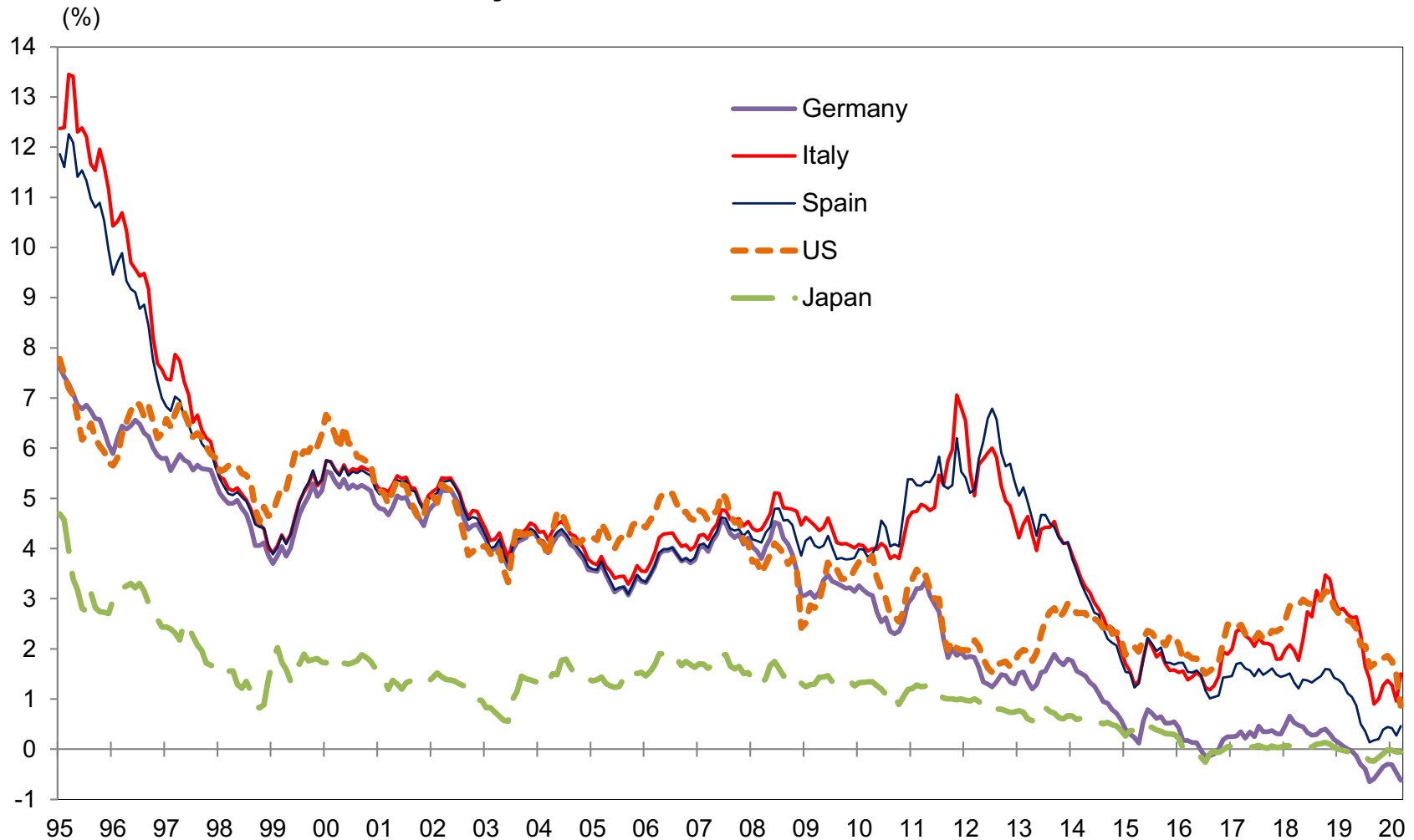


Exhibit 32. Pursued Economies with Super-Low Bond Yields Should Be Able to Find Self-Financing Public Works Projects

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10-year Government Bond Yields



Source: Nomura Research Institute, based on the data from ECB, FRB and Ministry of Finance, Japan

Exhibit 33. Different Era Requires Different Policy Mix

Golden Era (Household Savings < Corporate Borrowings: naturally inflationary)

An independent central bank is both essential and effective in controlling inflation. Fiscal policy is largely ineffective if not counter-productive due to crowding-out effect on private investment.

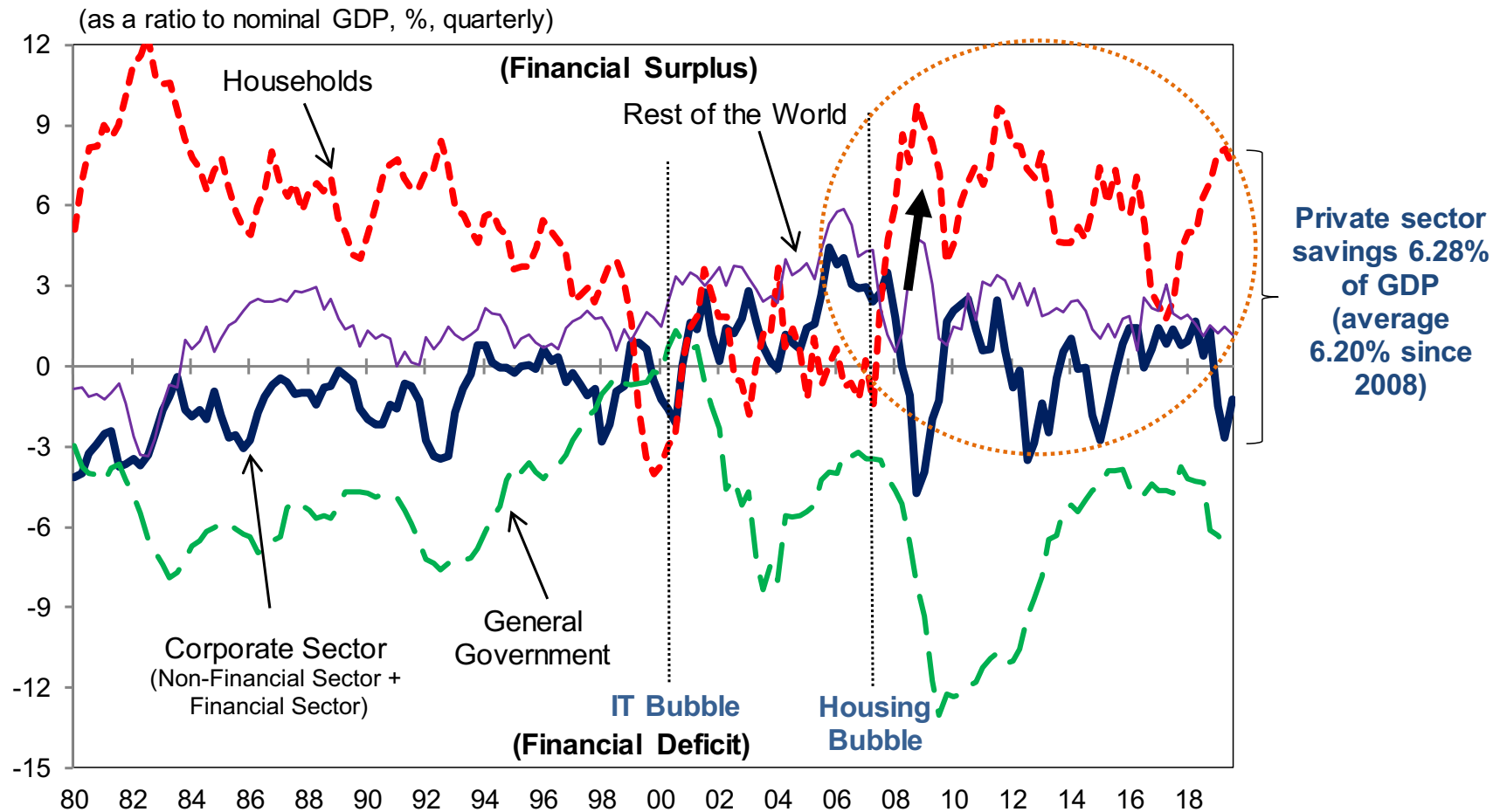
Pursued Era (Household Savings > Corporate Borrowings: naturally disinflationary)

An independent fiscal commission is essential in finding self-financing public works projects so that the government can act as the borrower of last resort. Monetary policy is largely ineffective and may trigger undesirable cycles of bubbles and balance sheet recessions.

Exhibit 34. US Private Sector Has Been Saving 6.20% of GDP on Average with near Zero Interest Rates since 2008

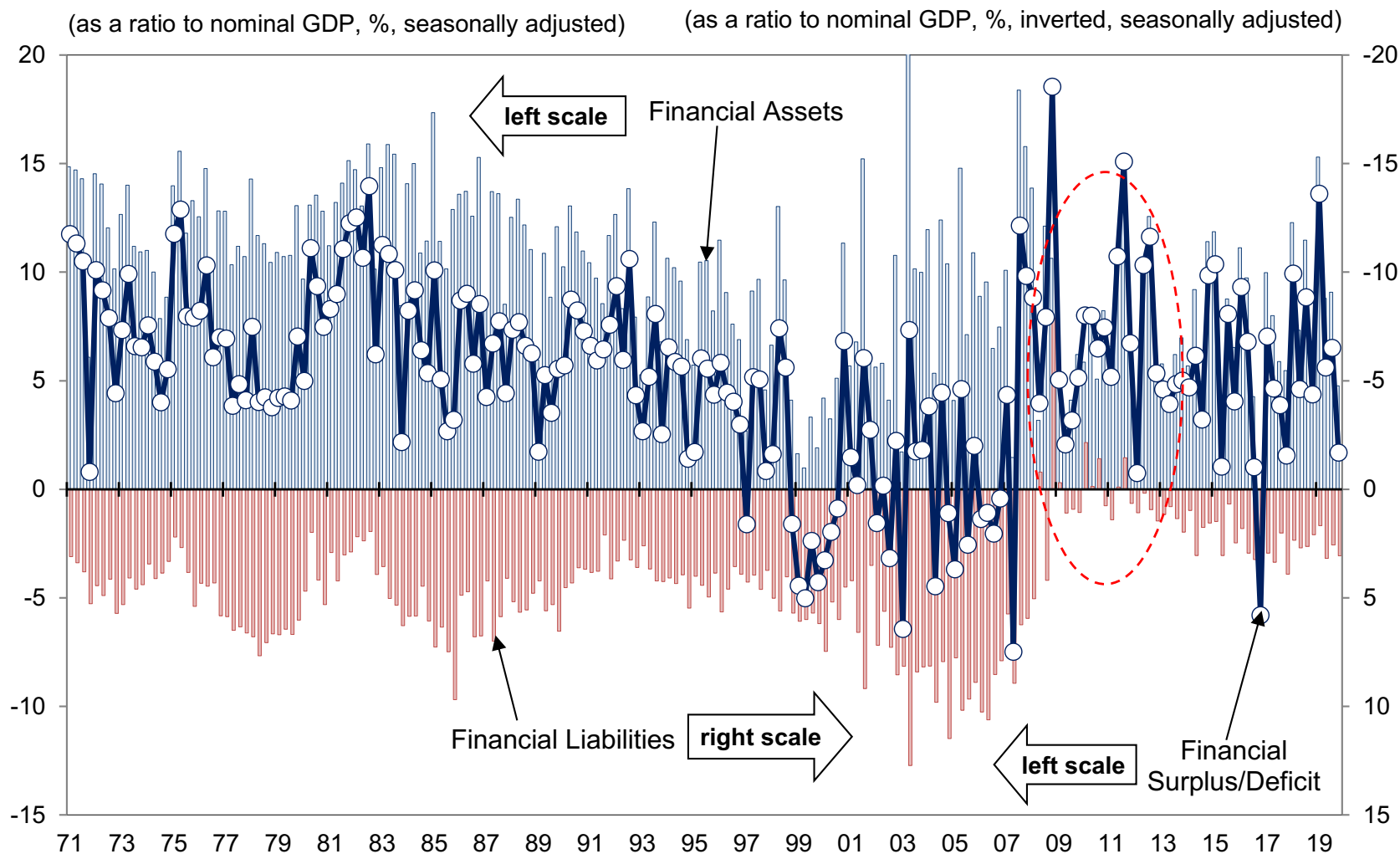
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Financial Surplus or Deficit by Sector



Note: All entries are four-quarter moving averages. For the latest figures, four-quarter averages ending in 2019 Q4 are used.
Sources: FRB, US Department of Commerce

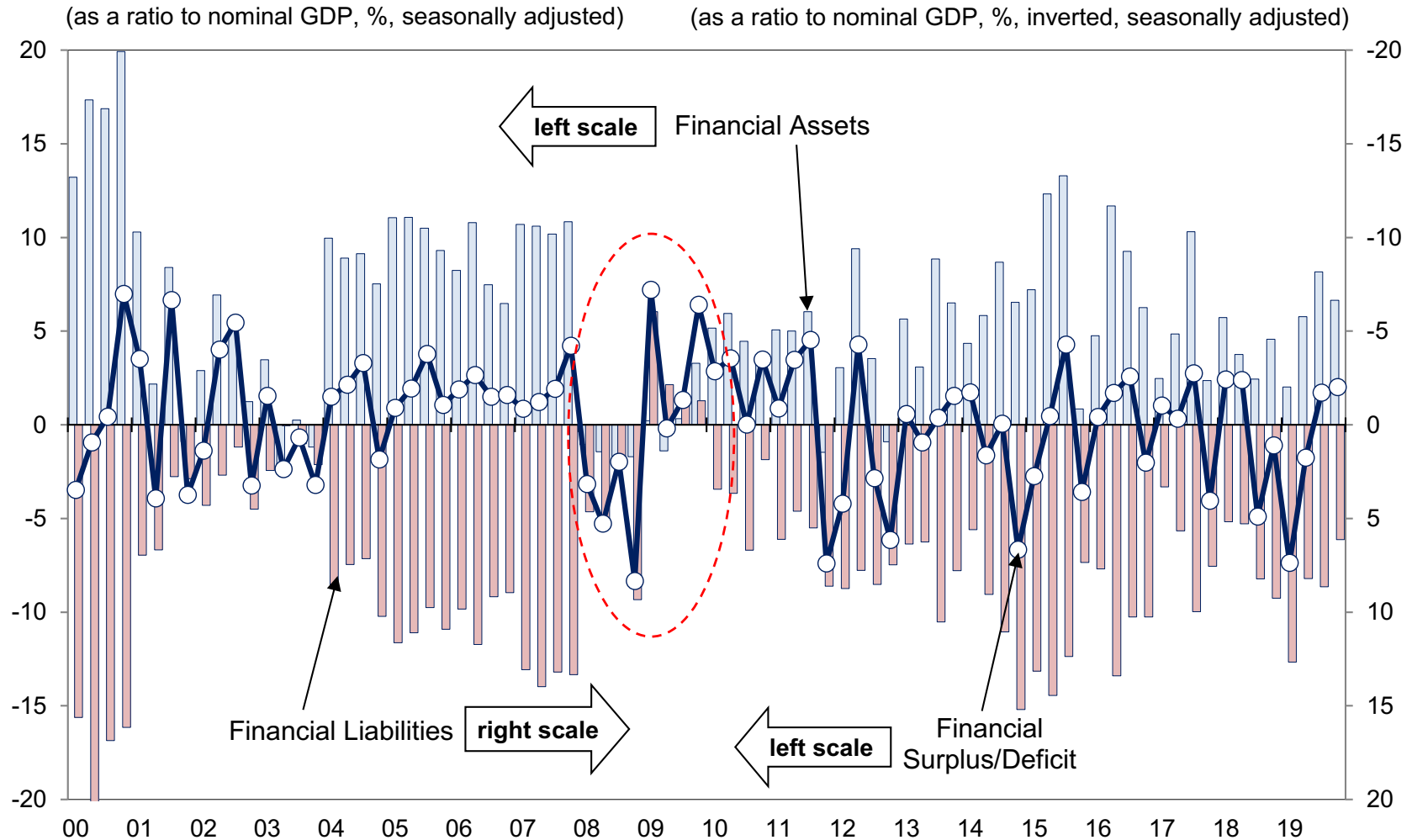
Exhibit 35. US Households Are still in Large Financial Surplus even with very Low Interest Rates



Notes: Latest figures are for 2019 Q4.

Sources: Nomura Research Institute, based on flow of funds data from FRB and US Department of Commerce

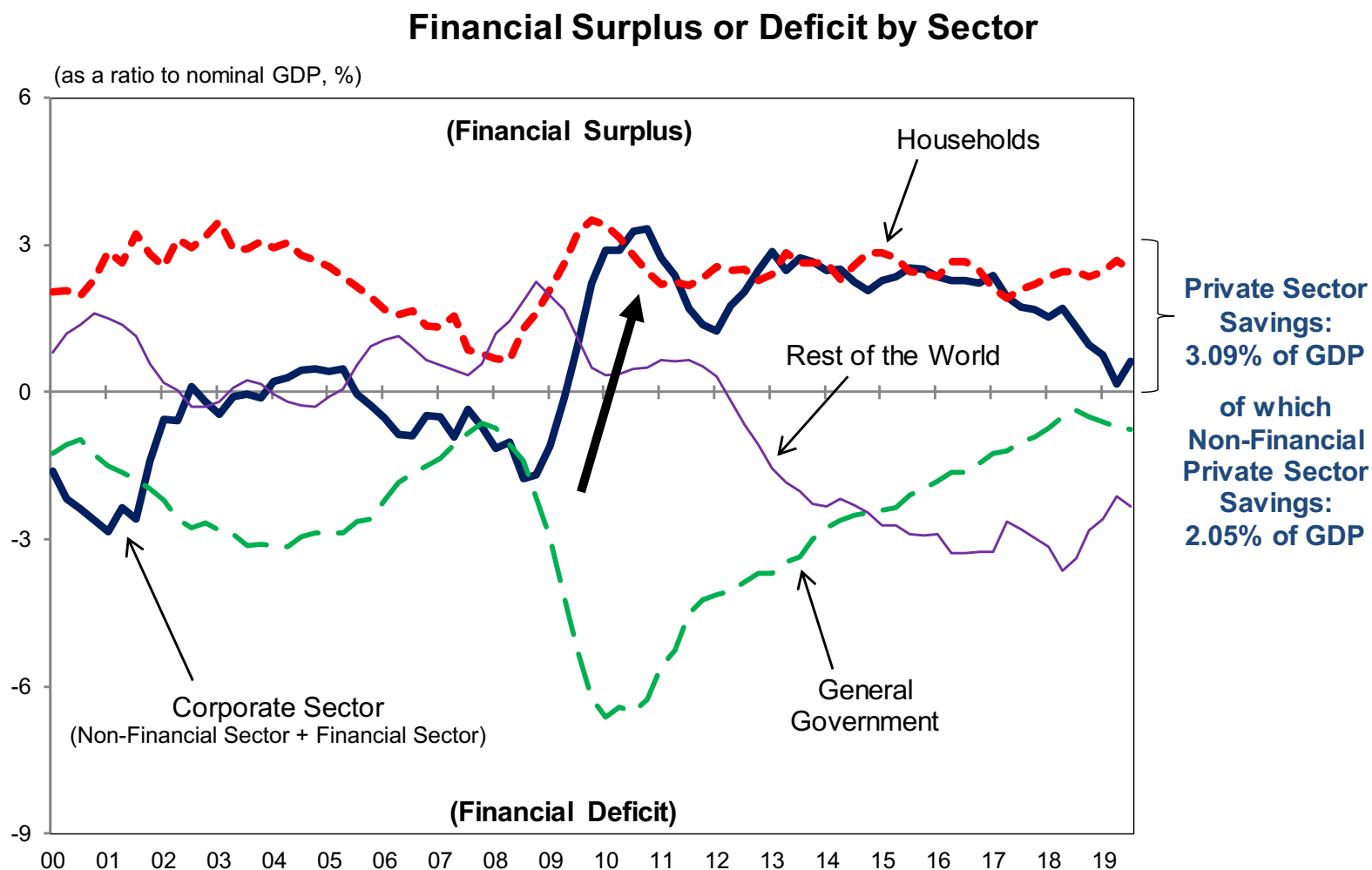
Exhibit 36. US Non-Financial Corporations' Financial Liabilities Are Worse than They Look because of Share Buy-Backs



Notes: Latest figures are for 2019 Q4.

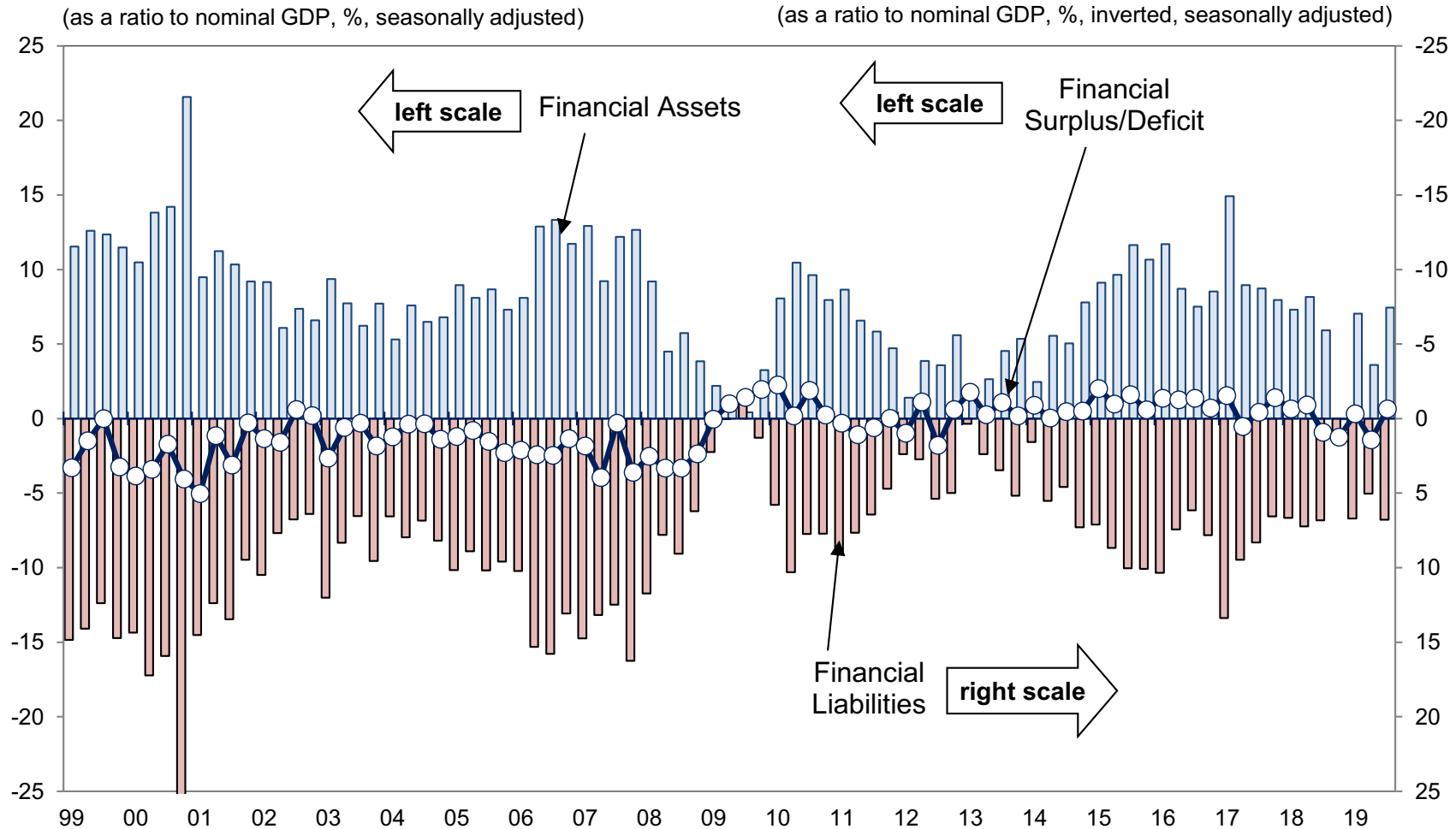
Sources: Nomura Research Institute, based on flow of funds data from FRB and US Department of Commerce

Exhibit 37. Eurozone in Balance Sheet Recession



Note: All entries are four-quarter moving averages. For the latest figures, four-quarter averages ending in 2019 Q3 are used.
Sources: ECB and Eurostat

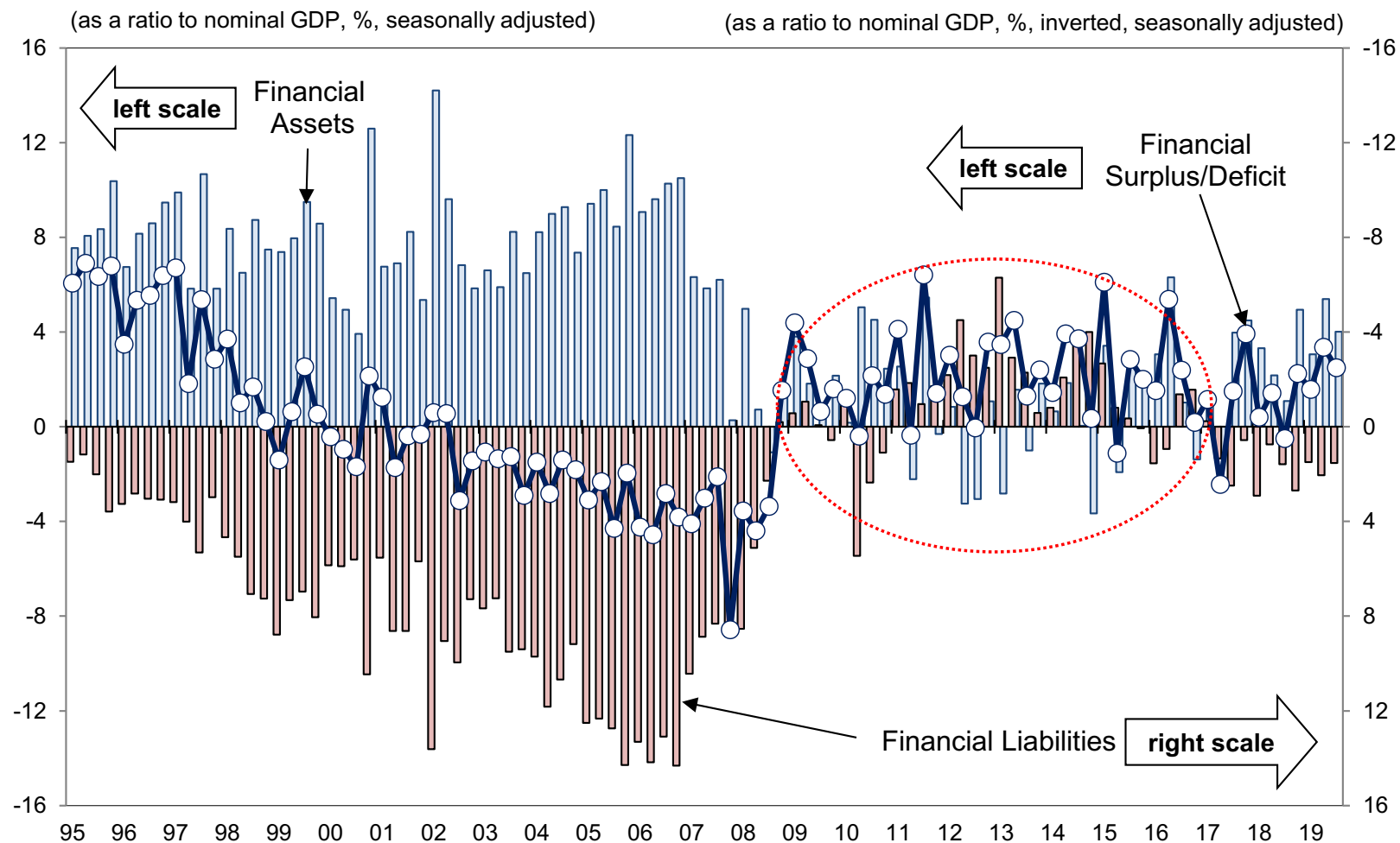
Exhibit 38. Eurozone Non-Financial Corporations Are Becoming Cautious Net Borrowers



Notes: Seasonal adjustments by Nomura Research Institute. Latest figures are for 2019 Q3.

Source: Nomura Research Institute, based on the data from ECB and Eurostat

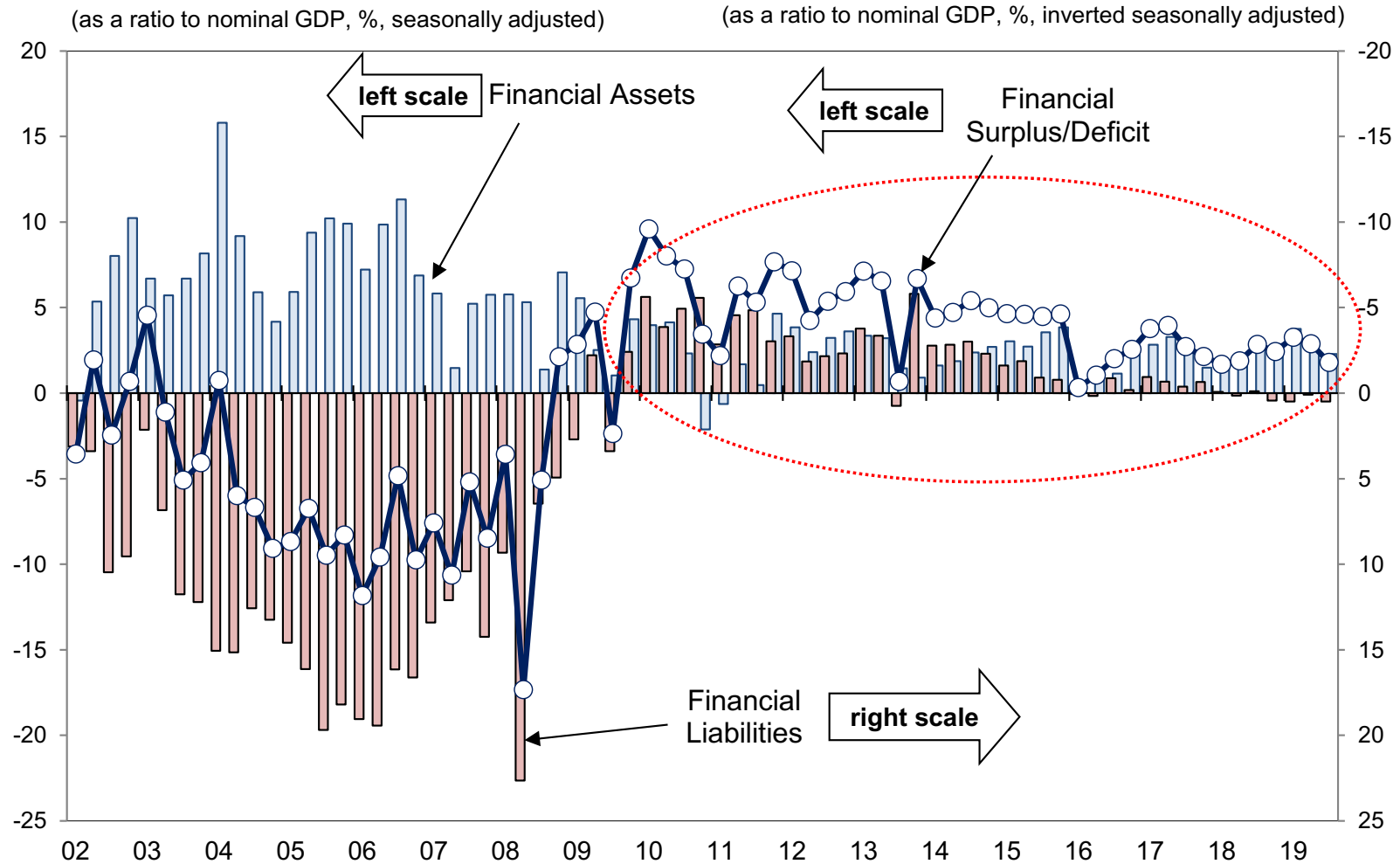
Exhibit 39. Spanish Households Are finally Coming out of Deleveraging



Notes: Seasonal adjustments by Nomura Research Institute. Latest figures are for 2019 Q3.

Sources: Nomura Research Institute, based on flow of funds data from Banco de España and National Statistics Institute, Spain

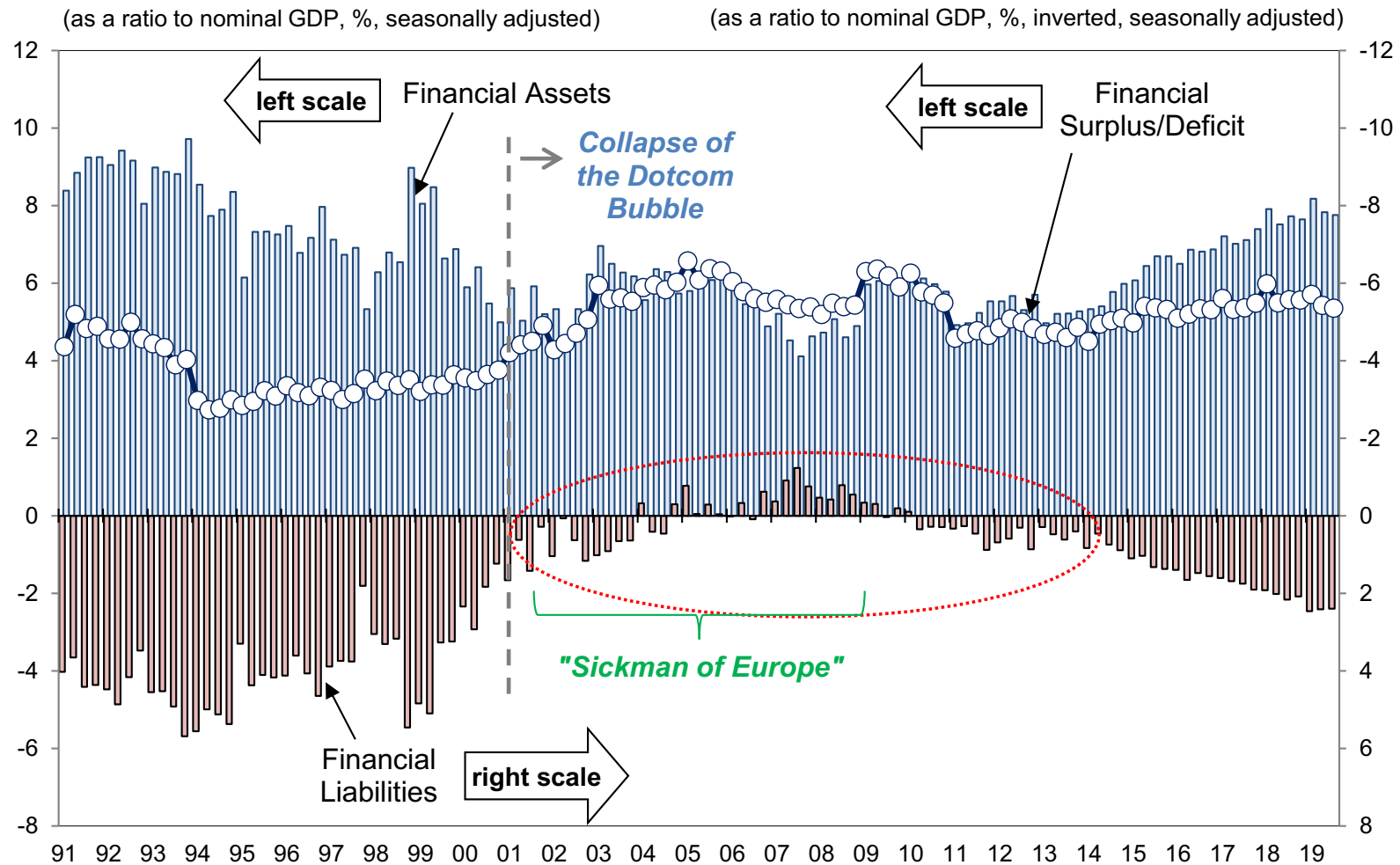
Exhibit 40. Irish Households Have Been Deleveraging since 2008



Notes: Seasonal adjustments by Nomura Research Institute. Latest figures are for 2019 Q3.

Sources: Nomura Research Institute, based on flow of funds data from ECB and Central Statistics Office, Ireland

Exhibit 41. German Households Have Been Deleveraging since the Bursting of 2000 Dotcom Bubble

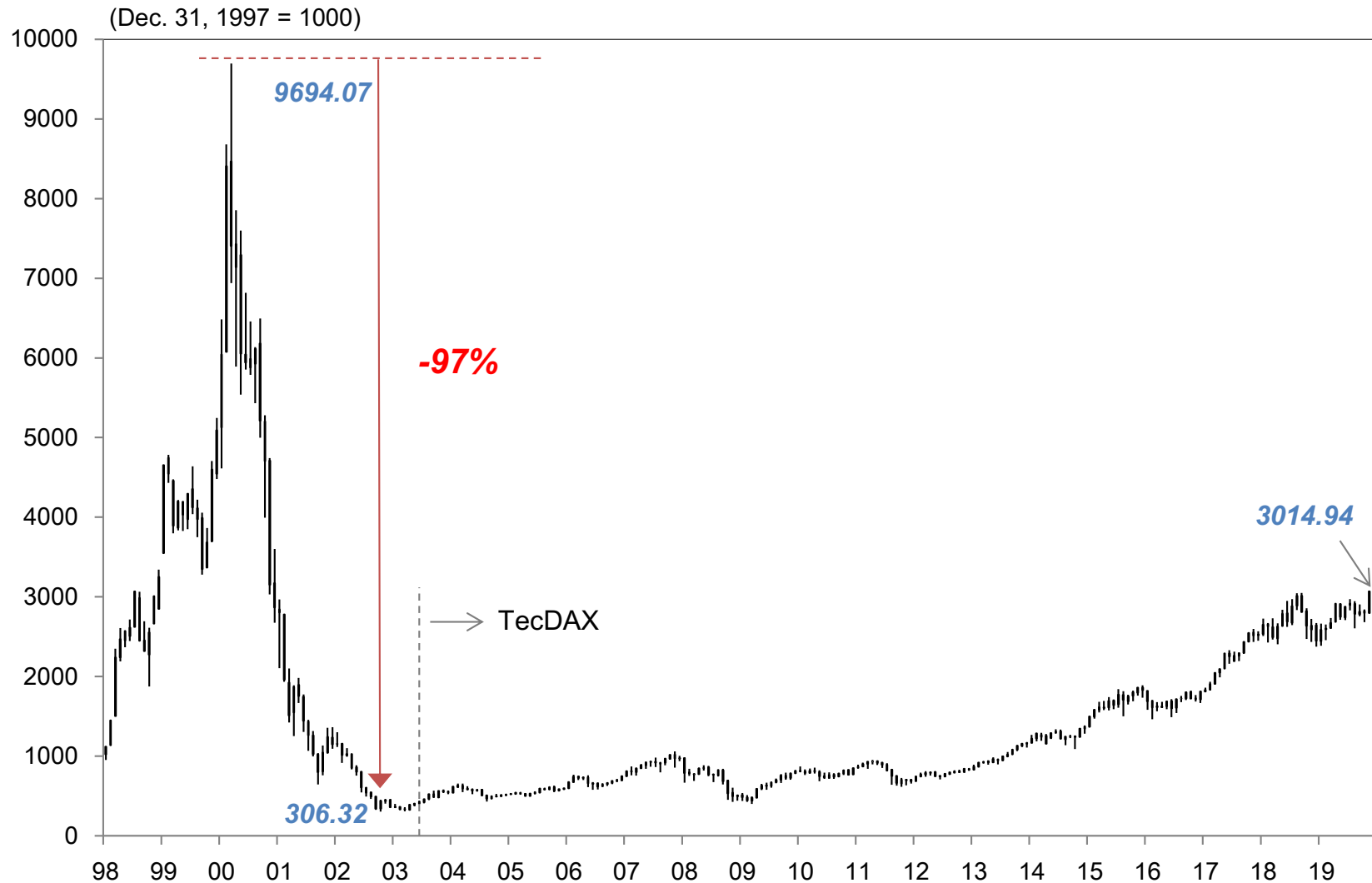


Note: Seasonal adjustments by Nomura Research Institute. Latest figures are for 2019 Q3.

Sources: Nomura Research Institute, based on flow of funds data from Bundesbank and Eurostat

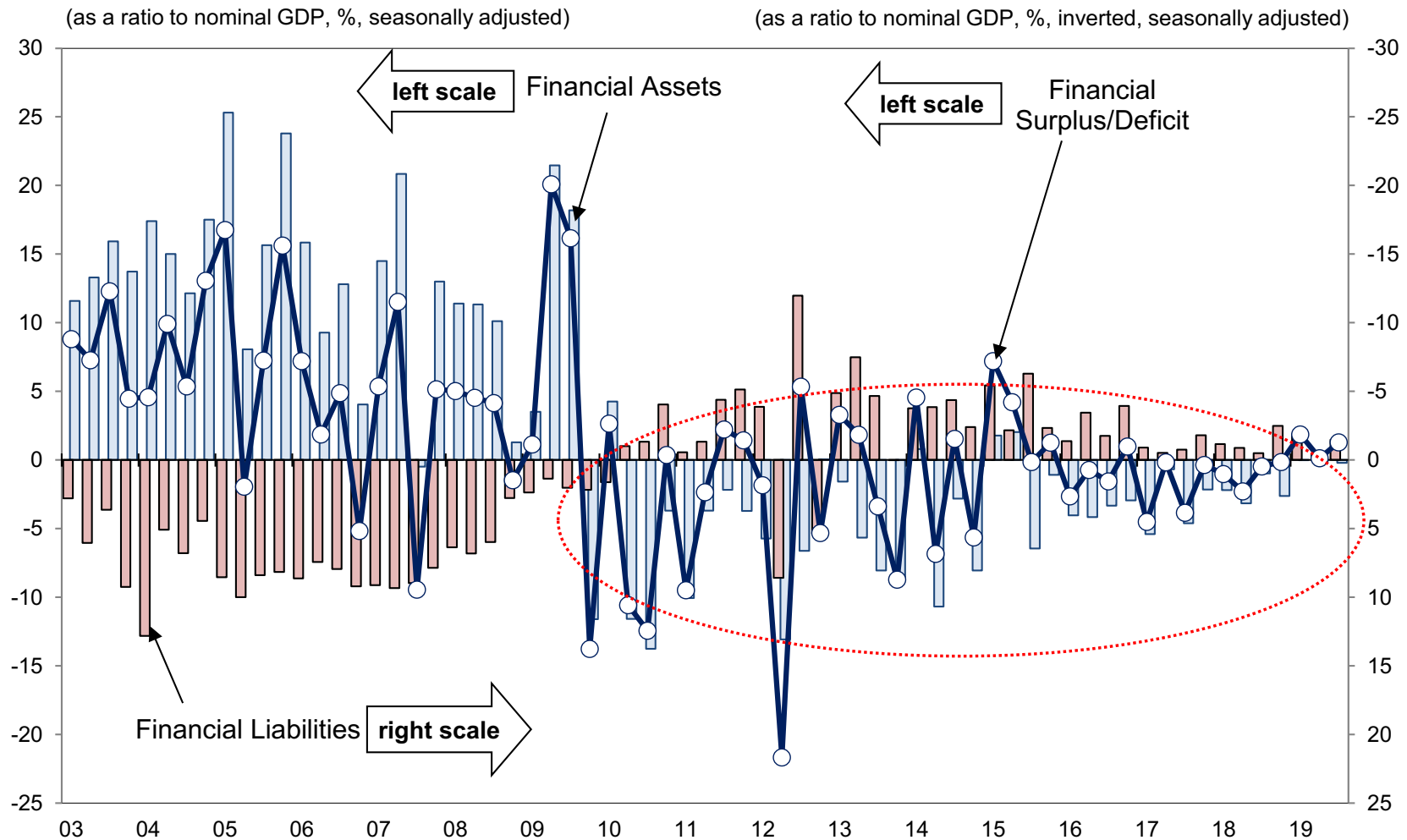
Exhibit 42. The Collapse of Neuer Markt in 2001 Pushed German Economy into Balance Sheet Recession

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Source: Bloomberg, as of December 31, 2019

Exhibit 43. Greek Households Are Still Struggling with Low Income and Deleveraging



Notes: Seasonal adjustments by Nomura Research Institute. Latest figures are for 2019 Q3.

Sources: Nomura Research Institute, based on flow of funds data from Bank of Greece and Hellenic Statistical Authority, Greece

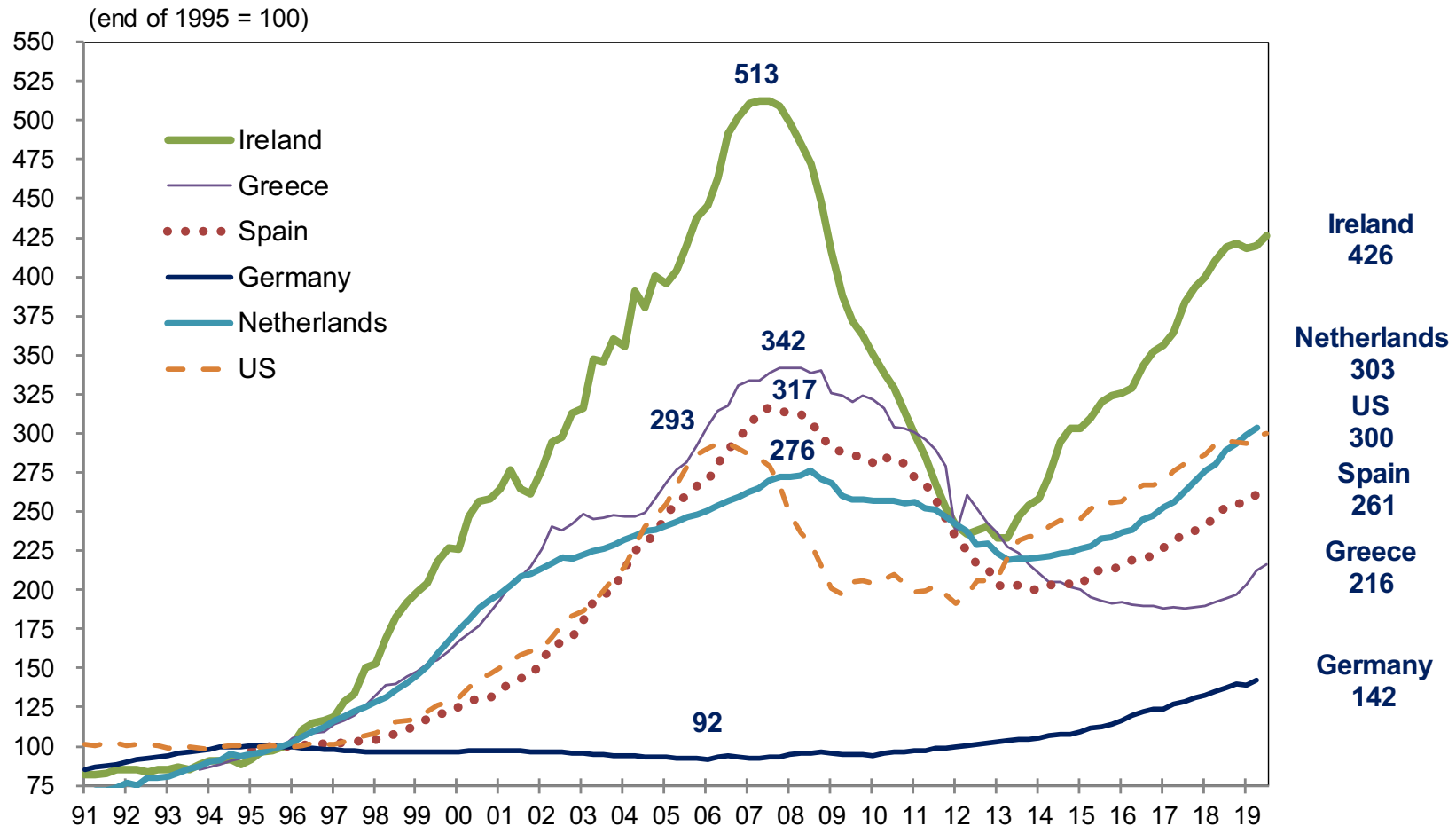
Exhibit 44. Commonly Overlooked Truth about Debt

- 1) For debt to grow, someone *must* be saving money.
 - 2) If someone *is* saving money, debt *must* grow to keep the economy running.
-
- 3) The only relevant issue with debt is whether the borrower can pay it back.
 - 4) If the debt number is growing faster than savings, that has to be due to double counting.

- 1) Lack of capex-driven borrowings force investors to invest in *existing* assets
- 2) Funds invested in existing assets tend to stay in financial sector
- 3) Exceptionally low interest rates typical of pursued economies prompt investors to reach for yield while downplaying risk
- 4) Central banks with golden-era mindset continue to inject liquidity via QE in order to meet inflation targets

Exhibit 46. After the Collapse, Bubbles Are Returning with Ultra Loose Monetary Policies

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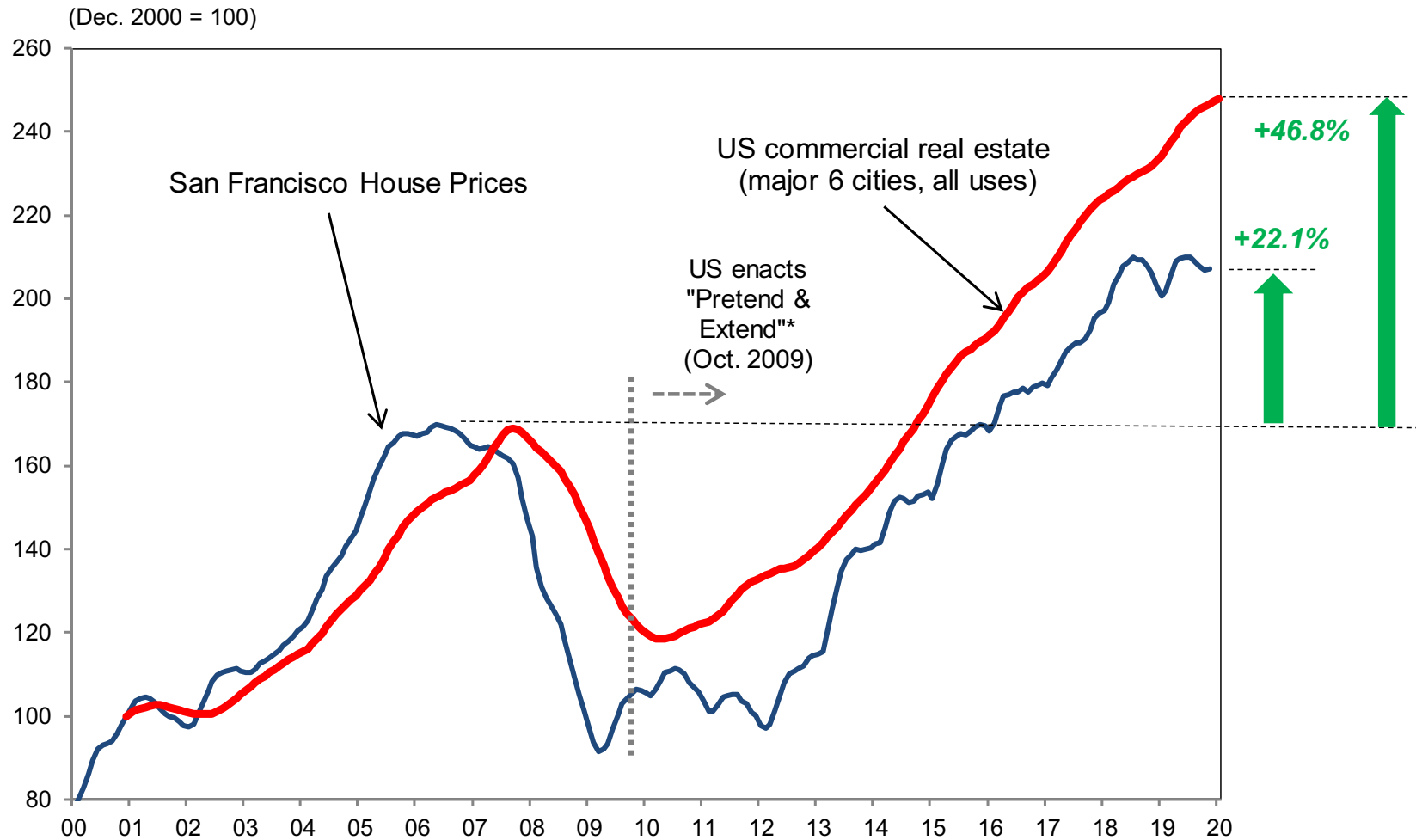


Notes: 1. Ireland's figures before 2005 are existing house prices only.

2. Greece's figures are flats' prices in Athens and Thessaloniki.

Sources: Nomura Research Institute, calculated from Bank for International Settlements and S&P Dow Jones data.

Exhibit 47. Some Bubbles Are Way Beyond 2008 Peaks



Note*: "Policy Statement on Prudent Commercial Real Estate Loan Workouts" (October 30, 2009)
 Sources: Nomura Research Institute, based on the data from Real Capital Analytics; "REAL CPPI,"
 and S&P Dow Jones Indices; "S&P CoreLogic Case-Shiller Home Price Indices"

Two Structural Deficiencies Unique to the Eurozone

Institutional Problem

**Governments unable to tackle
recessions caused by private
sector saving more than 3% of
GDP at near zero interest rates**

Financial Problem

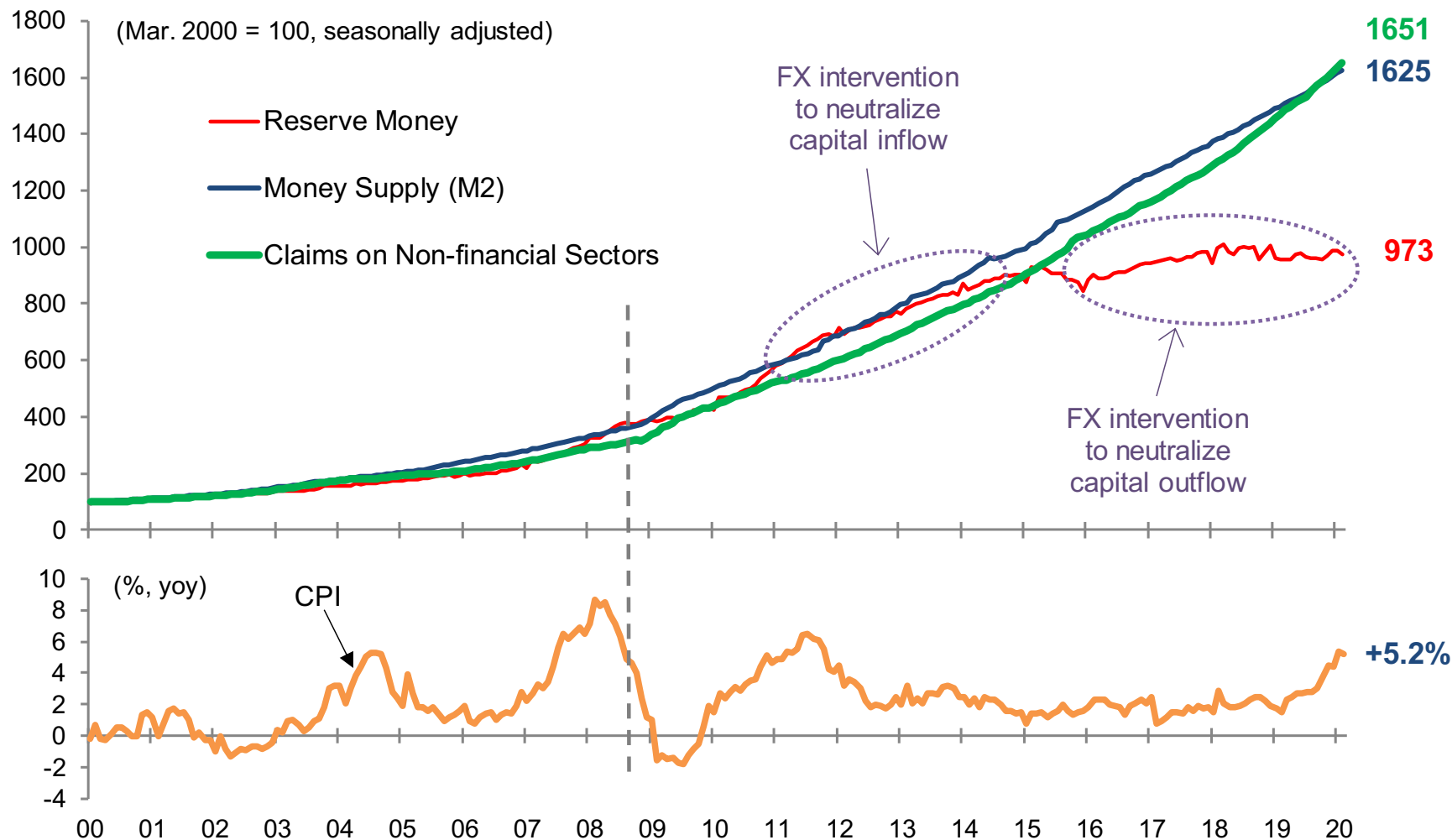
**Effectively a collection of
regional governments without
much fiscal space because of
procyclical and destabilizing
capital flights between their
government bond markets**

**Replace the 3% deficit limit with a ban on issuing debt to anyone
other than the country's own citizens**

- Eliminate de-stabilizing capital flight between 19 different government bond markets
- Allow governments to exercise fiscal policy as long as their citizens allow it
- Free ECB from the lack of borrower problem (Case 3) it cannot handle
- Free Euro from vagaries of political developments in member countries
- Maintain efficiency gains from free capital mobility for the private sector

Exhibit 49. China's Monetary Aggregates Are De-coupling because of FX Intervention to Support RMB

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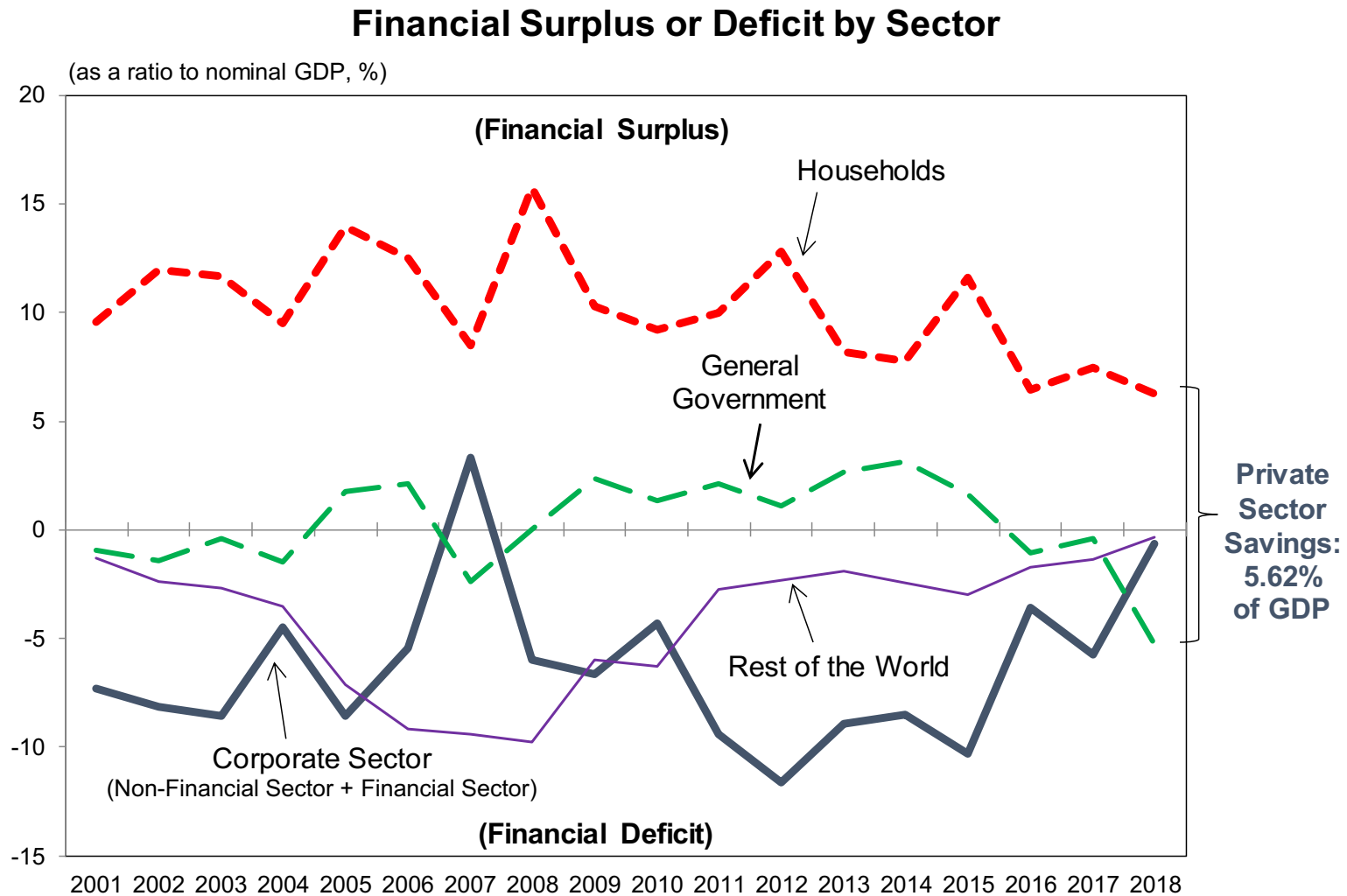


Note: Seasonal adjustments by Nomura Research Institute.

Source: Nomura Research Institute, based on the data from CEIC Data and People's Bank of China

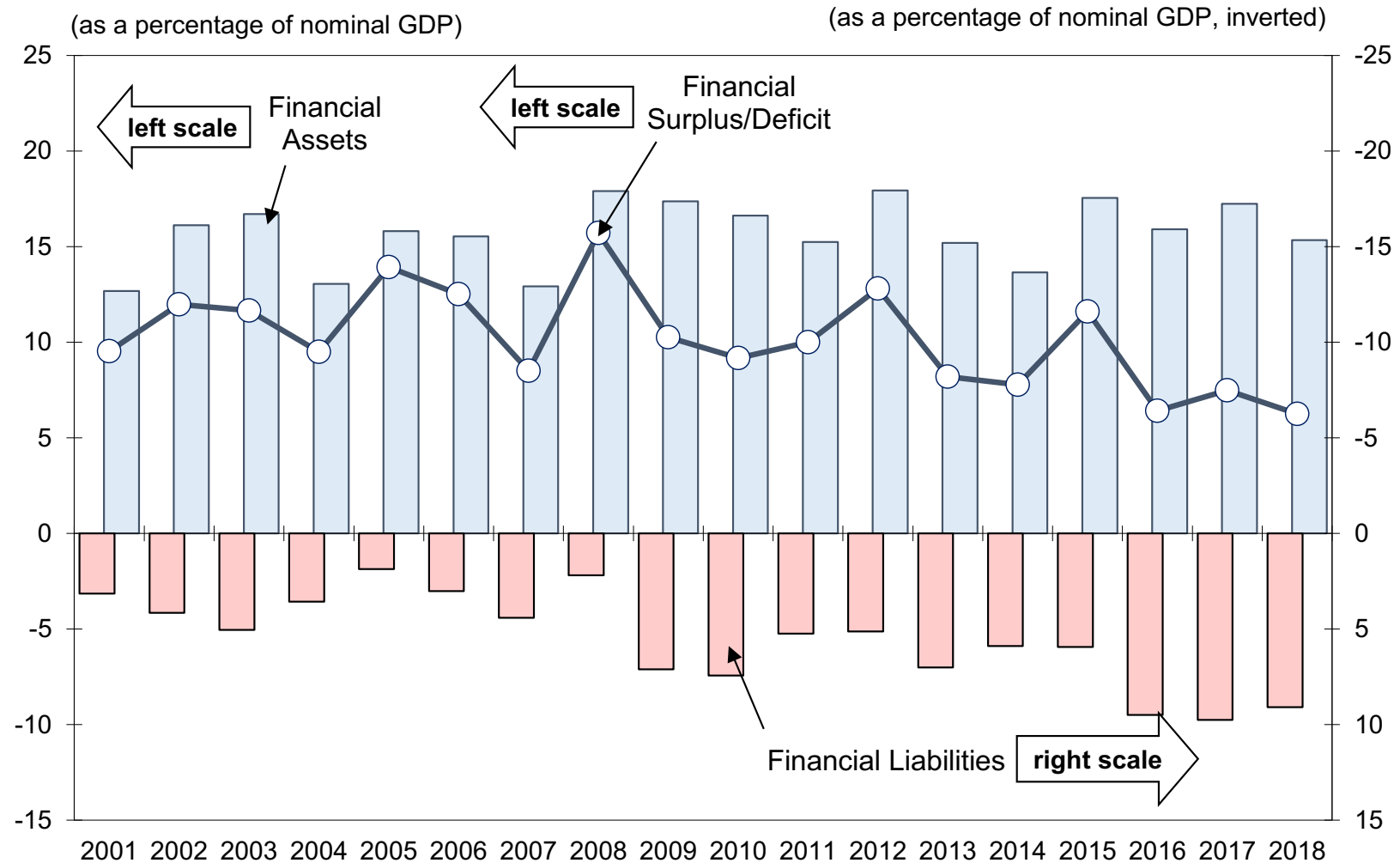
Exhibit 50. China in Golden Era Is Enjoying Strong Demand for Funds from Corporate Sector

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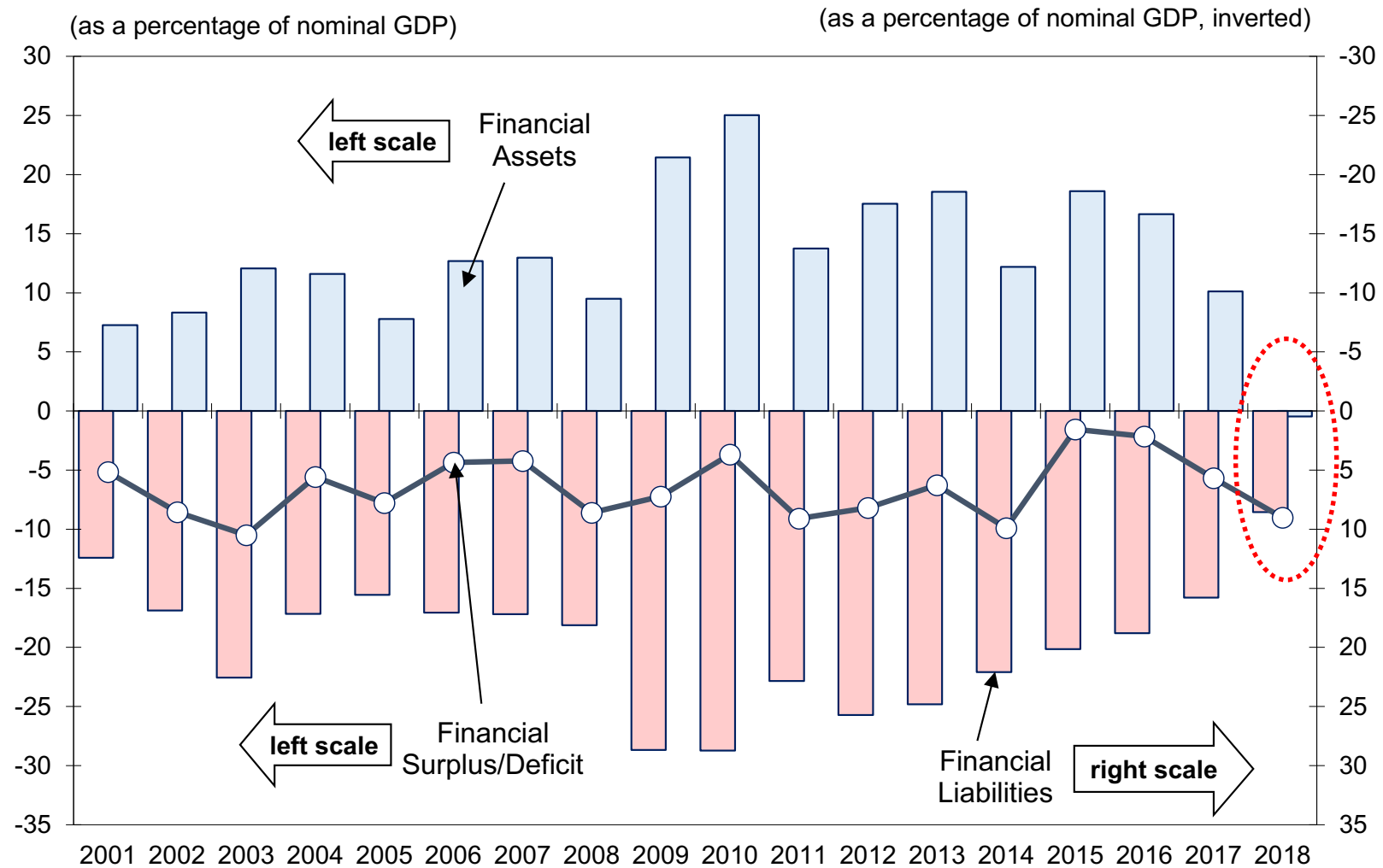
Source: Nomura Research Institute, based on the data from National Bureau of Statistics China and People's Bank of China

Exhibit 51. Chinese Household Sector Financial Surplus Remains Steady at around 10.2% of GDP



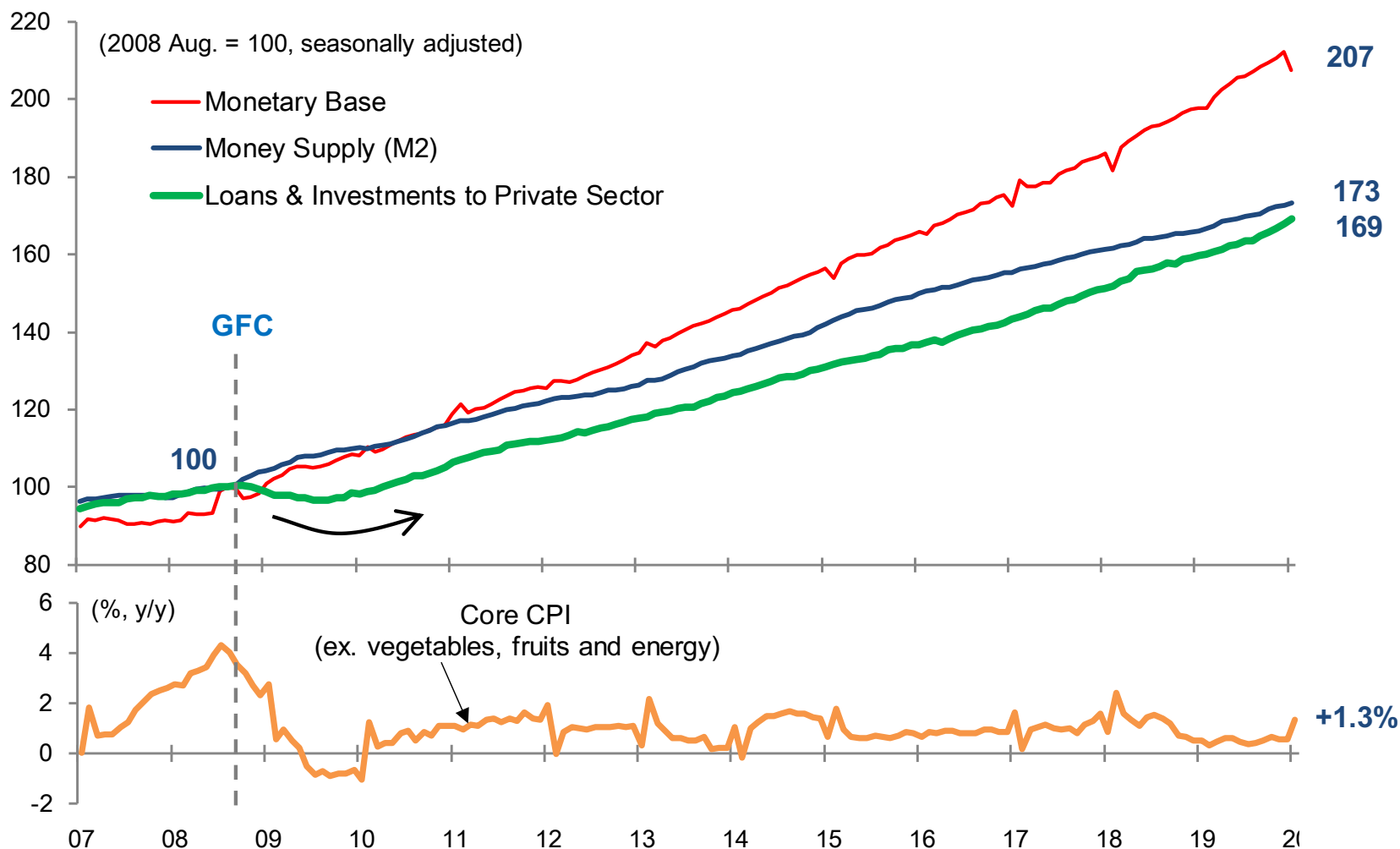
Source: Nomura Research Institute, based on the data from National Bureau of Statistics China and People's Bank of China

Exhibit 52. China's nonfinancial corporations drew down savings in 2018



Source: Nomura Research Institute, based on the data from National Bureau of Statistics China and People's Bank of China

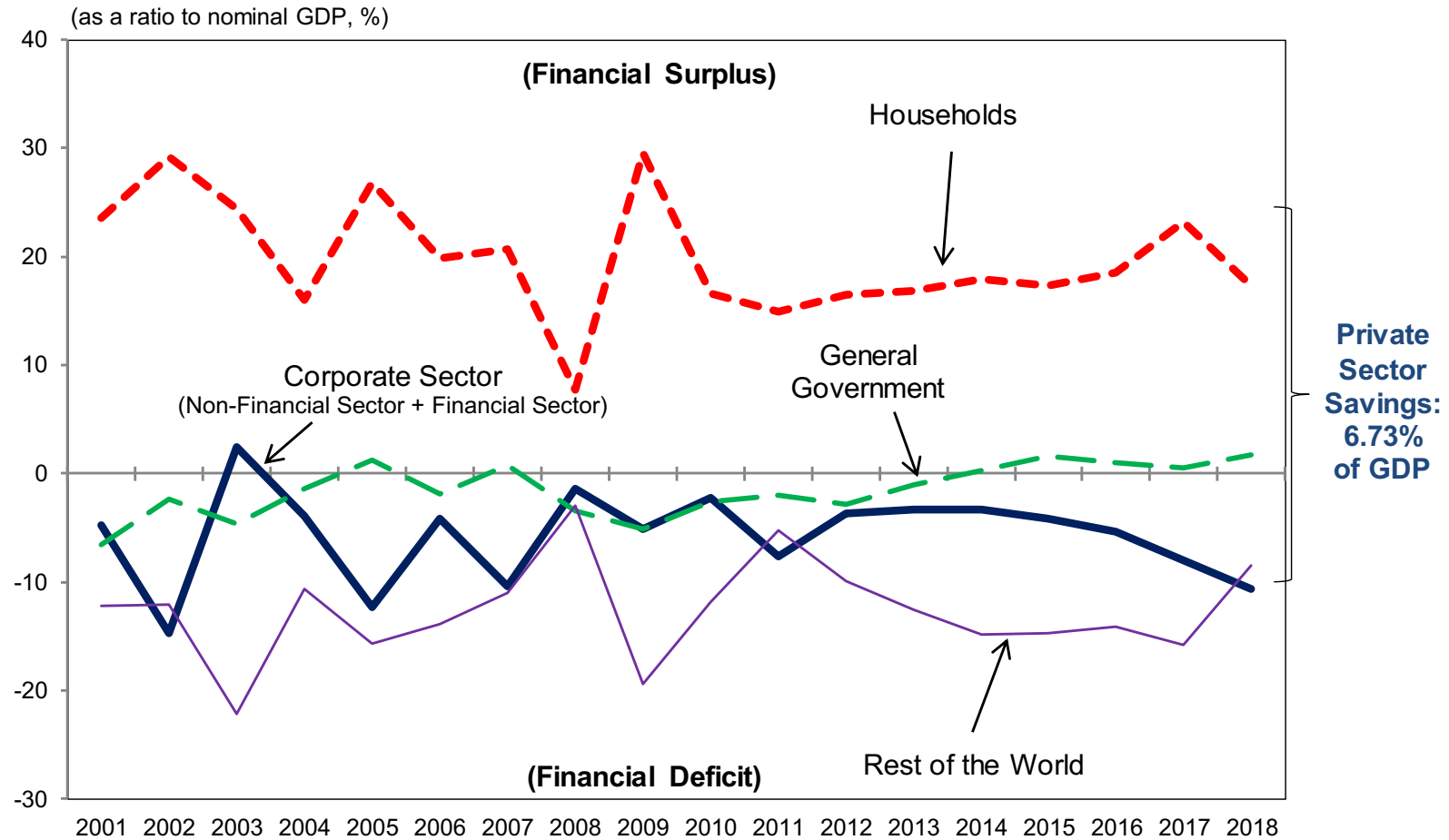
Exhibit 53. Taiwan Is Not in Balance Sheet Recession



Note: Figures for loans & investments to private sector are seasonally adjusted by Nomura Research Institute.
 Sources: CEIC data and the Central Bank of China (Taiwan)

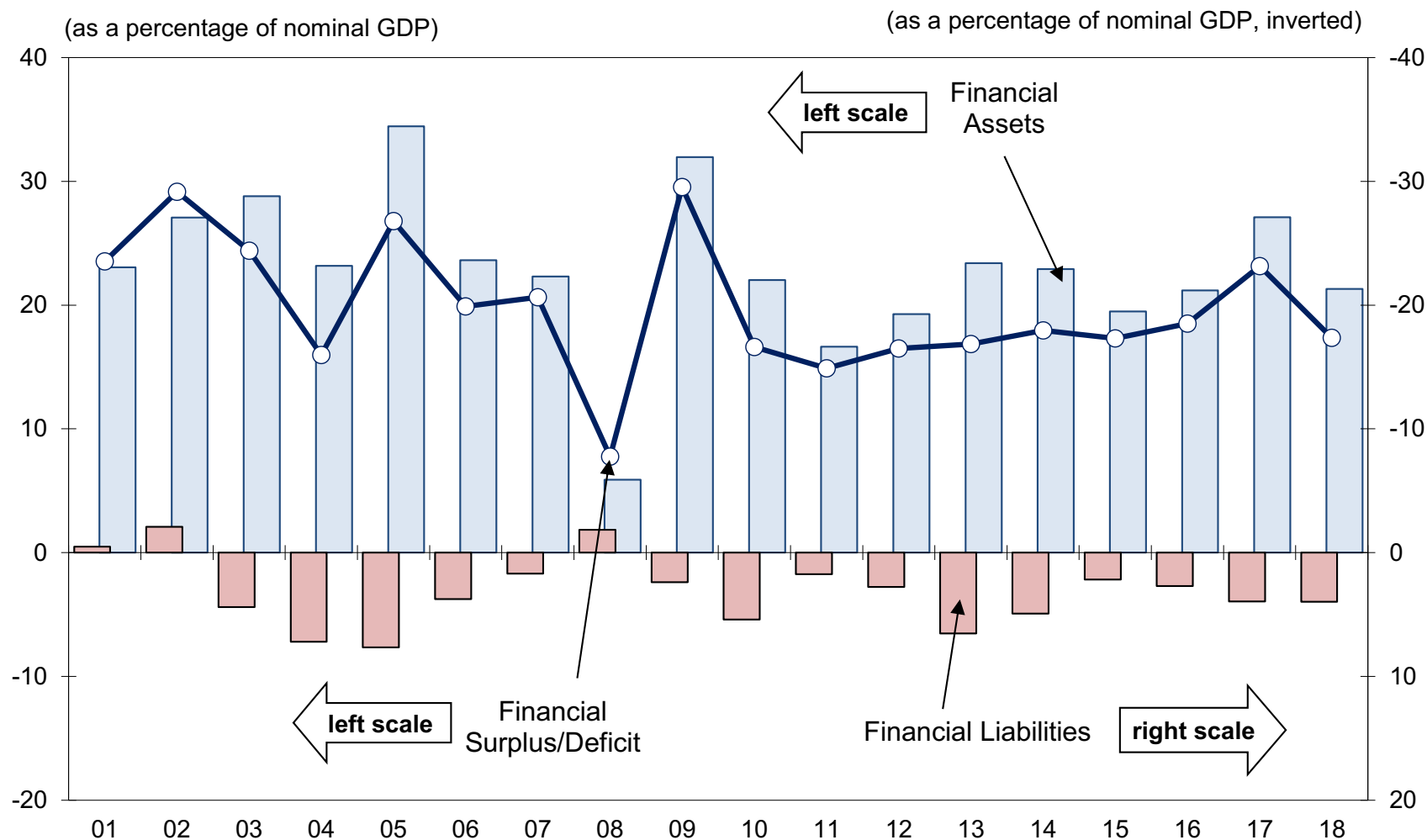
Exhibit 54. Taiwan's Household Savings Overwhelms Corporate Borrowings

Financial Surplus or Deficit by Sector



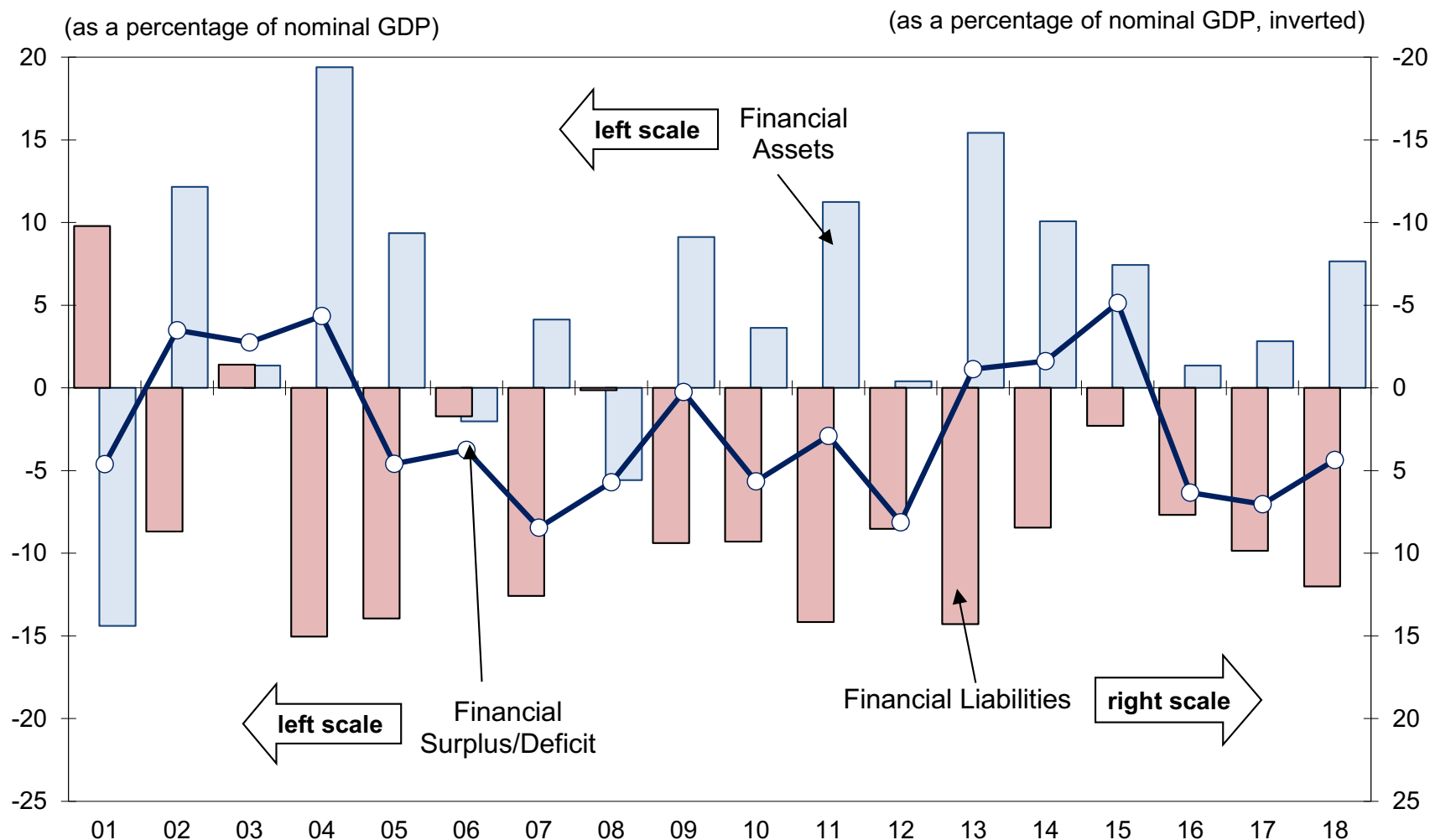
Source: Nomura Research Institute, based on the data from Central Bank of the Republic of China (Taiwan) and Directorate-General of Budget, Accounting and Statistics (DGBAS), Taiwan

Exhibit 55. Taiwanese Household Sector Has Been a Big Saver



Source: Nomura Research Institute, based on the data from Central Bank of the Republic of China (Taiwan) and Directorate-General of Budget, Accounting and Statistics (DGBAS), Taiwan

Exhibit 56. Taiwanese Non-financial Corporate Sector Has not Been a Big Borrower



Source: Nomura Research Institute, based on the data from Central Bank of the Republic of China (Taiwan) and Directorate-General of Budget, Accounting and Statistics (DGBAS), Taiwan

Appendix A-1

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