Hughes Hall Lecture:
After the Technology Bubble

Stephen King

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1. Remember the "New Economy"?

"The record expansion shows few signs of flagging as it heads into uncharted territory"

Business Week, February 2000

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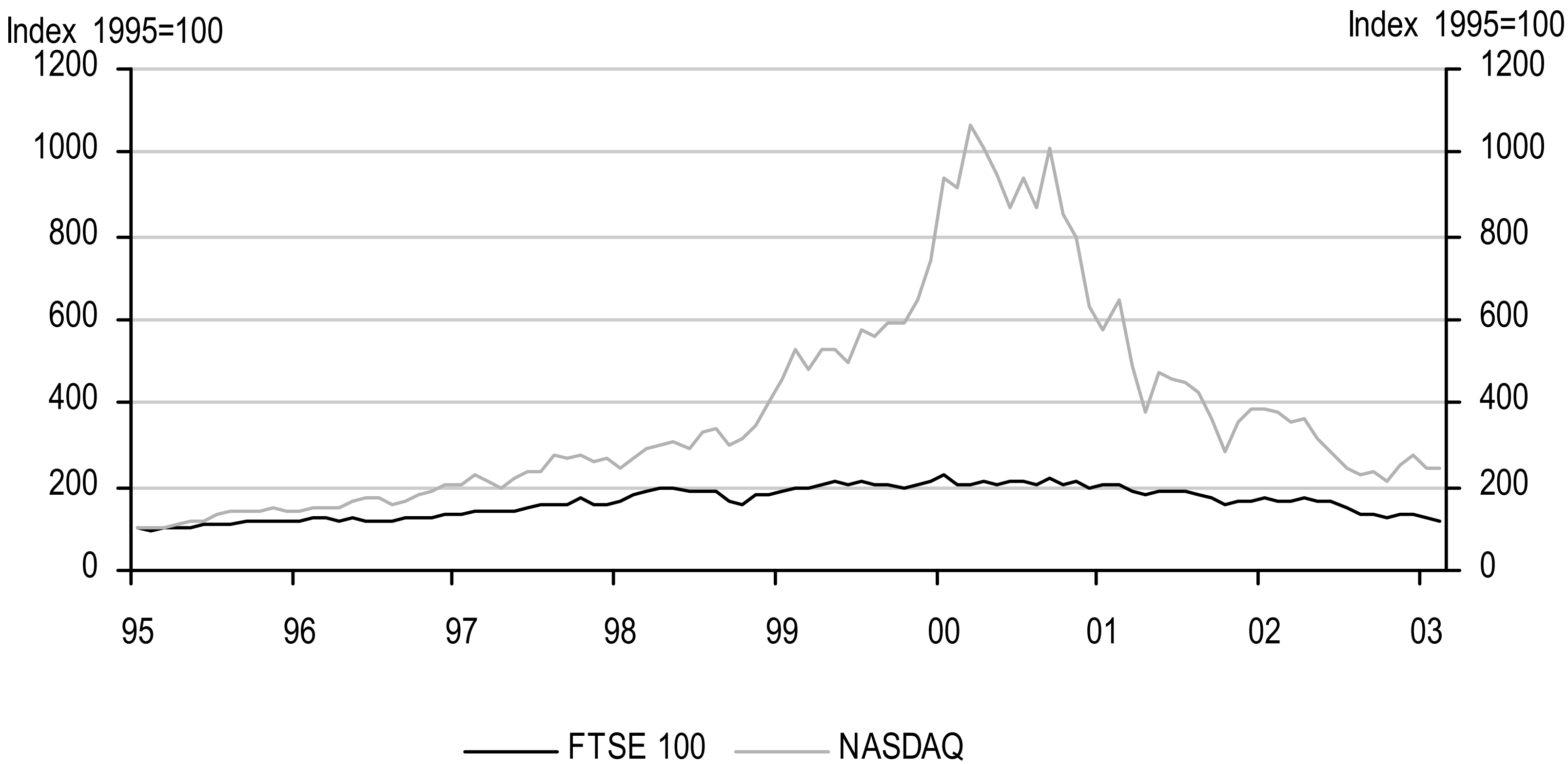
2. “The Bubble Bust”



Source: HSBC and Thomson Financial Datastream

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3. Japan’s Bubble

“What Japanese investors have become aware of is the dramatic way Japan’s blue chip companies have changed the sources of their earnings through restructuring....the implication is that shares may be underpriced”

The Economist, April 1989

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4. Japan’s stockmarket continues to fall

Source: HSBC and Thomson Financial Datastream

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5. The key beliefs of the late 1990s bubble:

- Productivity growth will be strong
- Profits and incomes will be strong
- Economic growth will be strong

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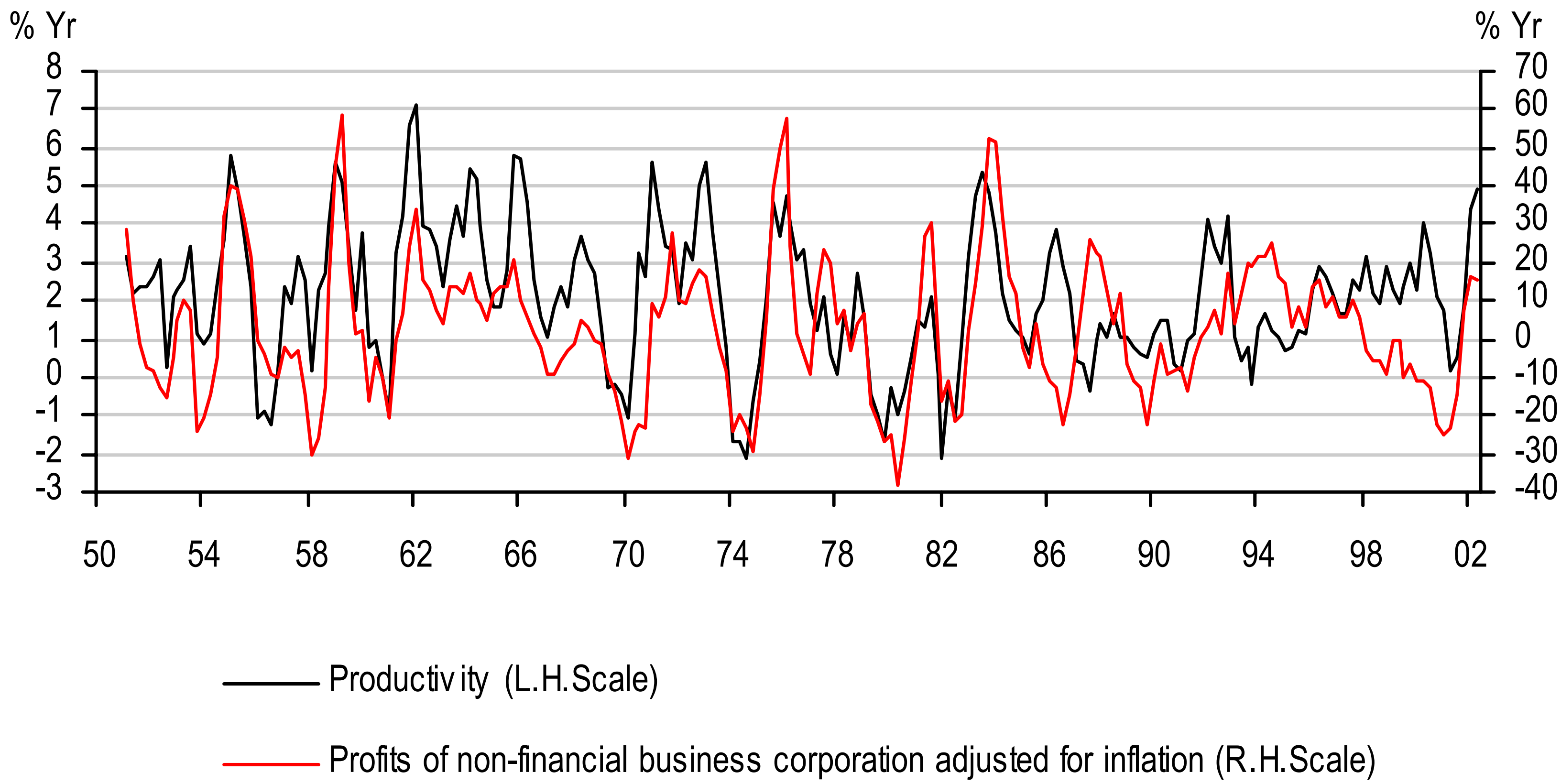
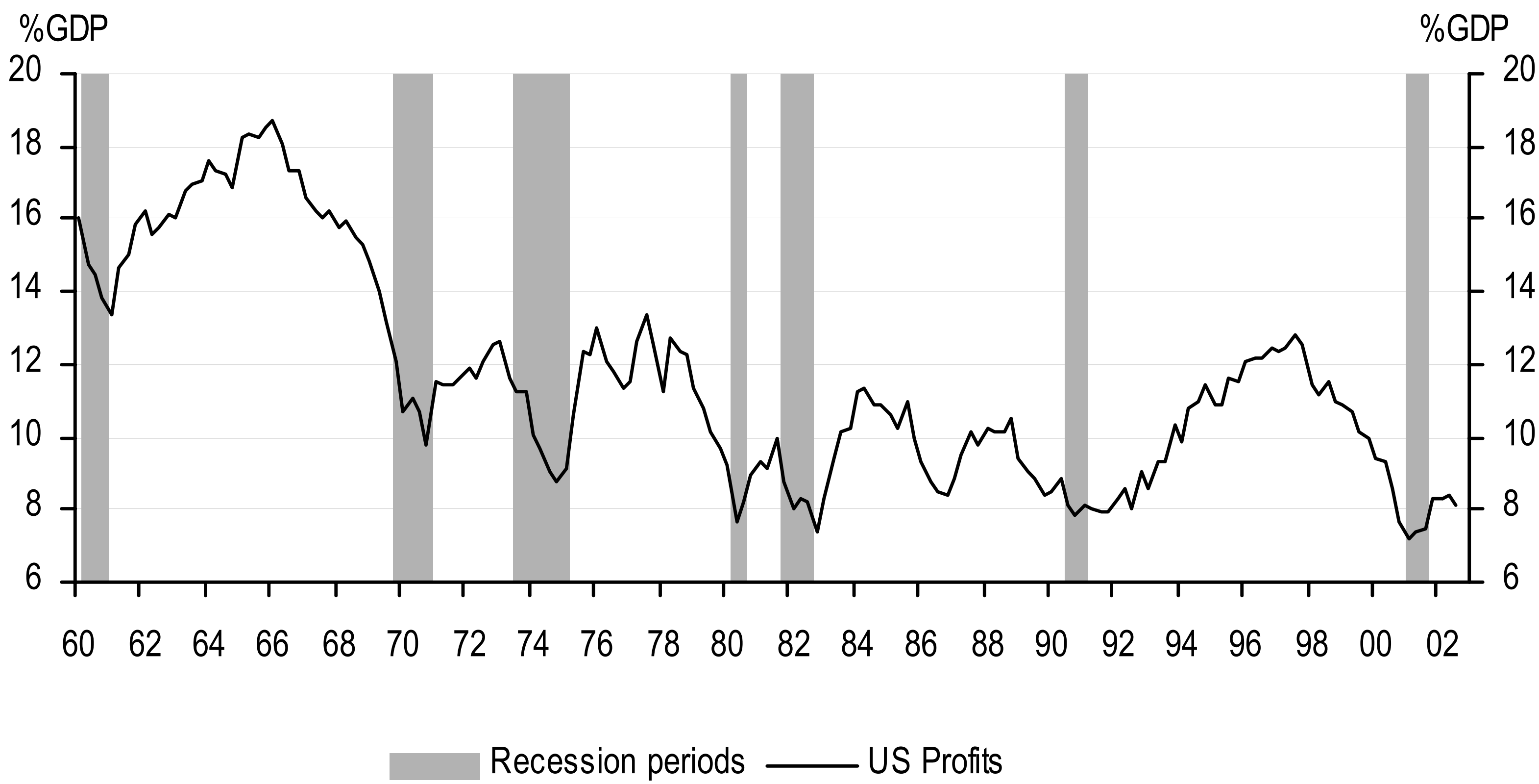
6. Productivity recently much stronger than profits



Source: HSBC and Thomson Financial Datastream

7. The US profit share is now very depressed



Source: HSBC and Thomson Financial Datastream

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10. What went wrong?

- New technologies can change the competitive environment
- New technologies can lead to excessive investment
- Low inflation does not guarantee a stable macroeconomic environment

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11. The change in the competitive environment

- New entrants because of lower costs
- Eroding margin because of greater price transparency
- Globalisation

12. Domestic and international determinants of domestic inflation: correlation coefficients across countries and over time

	1960s	1970s	1980s	1990s
US CPI correlated with				
1. Domestic ULCs	0.954	0.921	0.839	0.543
2. OECD inflation	0.739	0.920	0.759	0.826
Japanese CPI correlated with				
1. Domestic ULCs	n/a	0.954	0.814	0.867
2. OECD inflation	n/a	0.571	0.701	0.594
German CPI correlated with				
1. Domestic ULCs	0.592	0.796	0.434	0.742
2. OECD inflation	n.a.	0.179	0.734	0.335
French CPI correlated with				
1. Domestic ULCs	n.a.	0.841	0.979	0.596
2. OECD inflation	n.a.	0.963	0.754	0.835
Italian CPI correlated with				
1. Domestic ULCs	0.440	0.835	0.978	0.682
2. OECD inflation	-0.168	0.873	0.798	0.821
UK CPI correlated with				
1. Domestic ULCs	-0.297	0.836	0.678	0.637
2. OECD inflation	0.501	0.686	0.555	0.819

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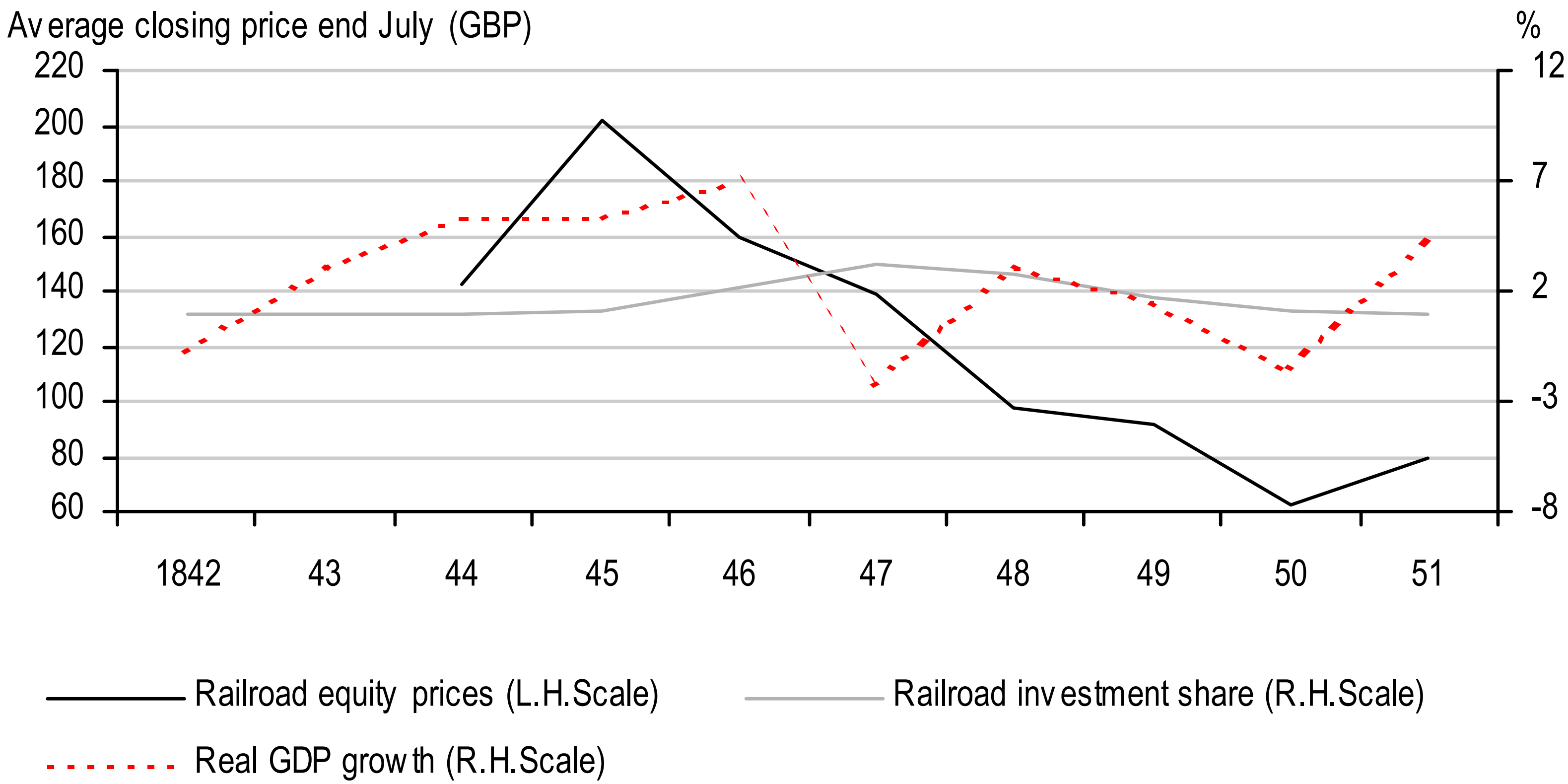
Source: OECD, Thomson Financial Datastream, HSBC calaculations

13. Excessive Investment

14. The UK railway boom of the 1840's



Source: HSBC, IMF

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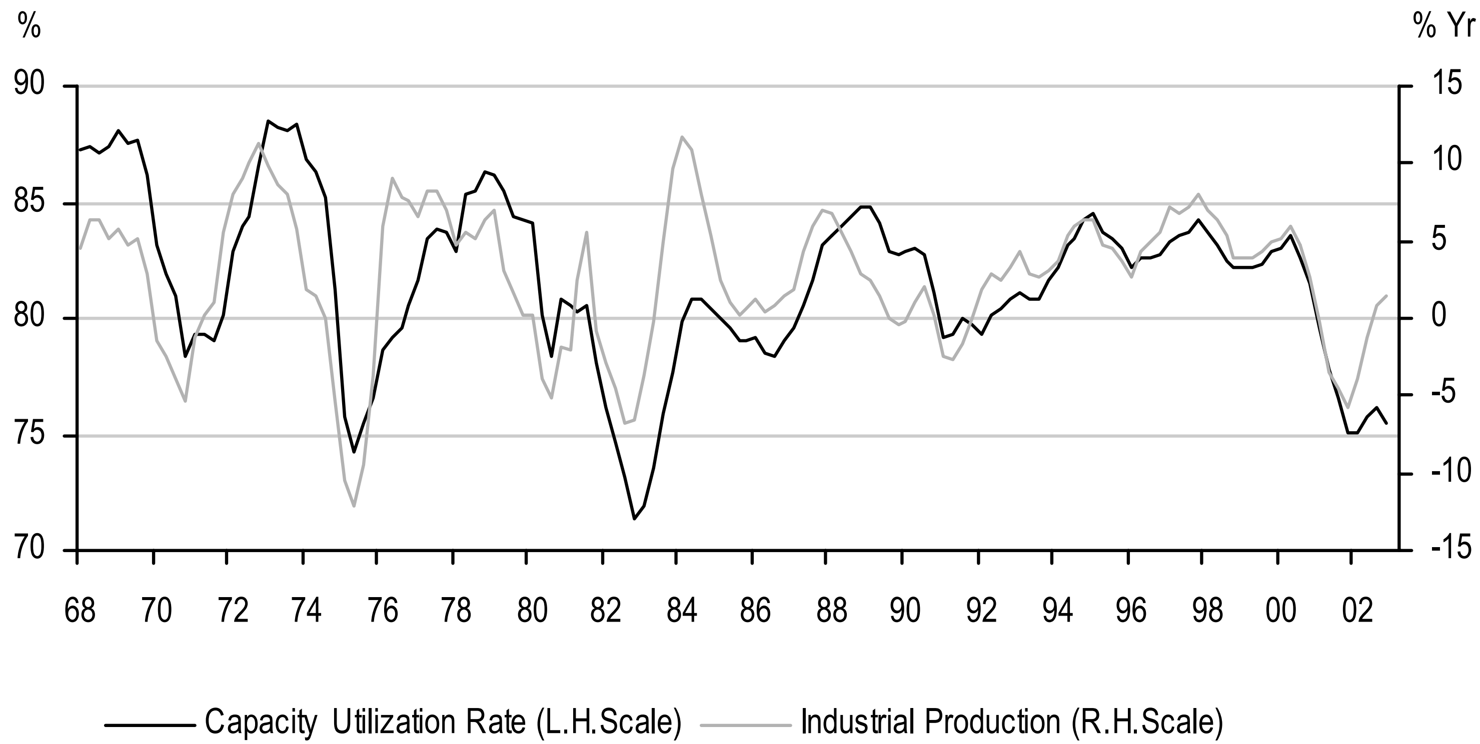
15. US production has picked up but capacity utilisation remains very low



Source: HSBC and Thomson Financial Datastream

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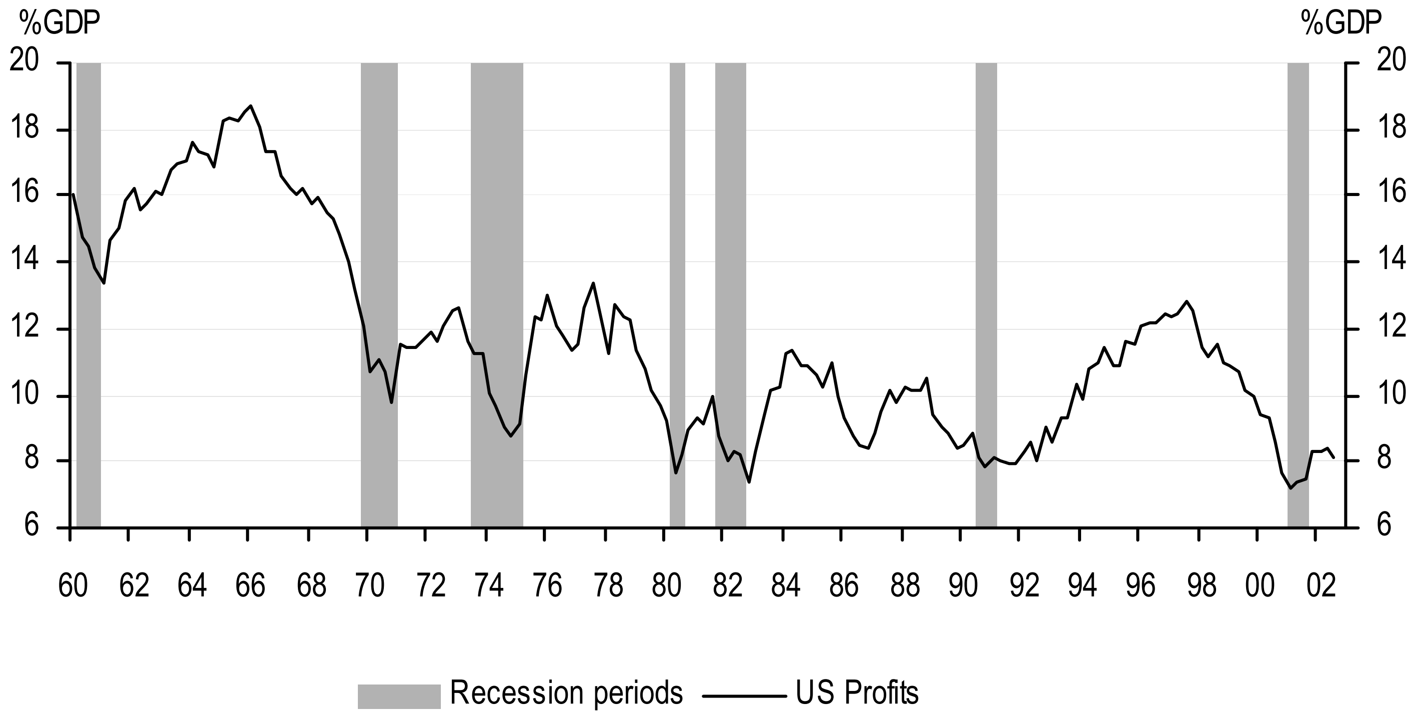
16. The profit share in GDP is unusually low despite a recent pick up



Source: HSBC and Thomson Financial Datastream

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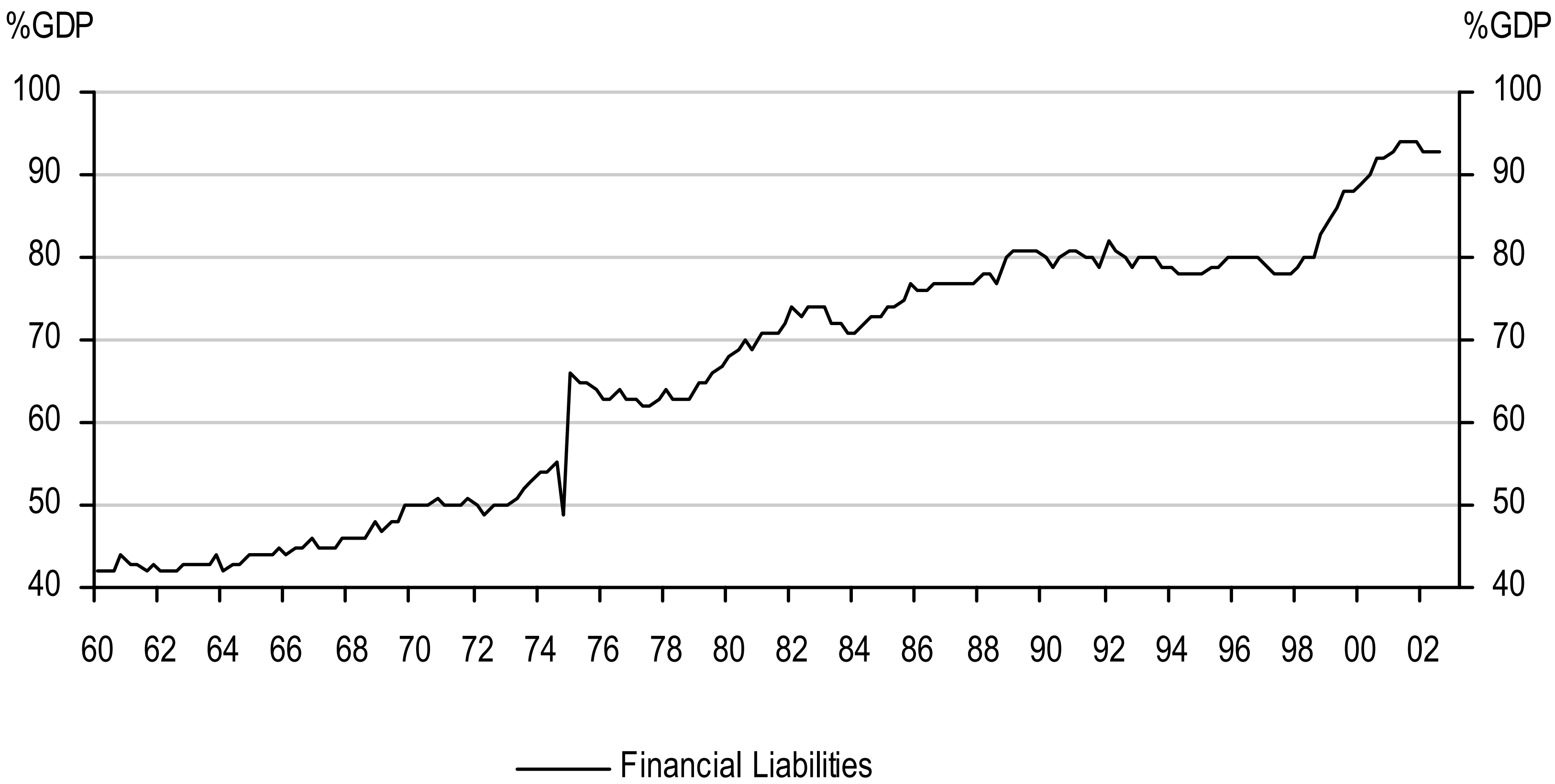
17. Corporate debt is still very high as a share of GDP



Source: HSBC and Thomson Financial Datastream

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18. The arrival of low (or lower) inflation can destabilize asset prices

- Japan in the late 1980’s
- UK in the late 1980’s
- Mexico in the early 1990’s
- Sweden in the late 1980’s
- The US in the second half of the 1990’s

19. New paradigm or bubble - the experience of "miracle" economies

Country	Growth rate of GDP (% annualised)
Japan	
Peak to peak (73Q4 to 91Q4)	3.7
Trough to trough (74Q1 to 95Q1)	3.3
Bubble period	4.5
UK	
Peak to peak (79Q2 to 90Q2)	2.1
Trough to trough (81Q1 to 92Q2)	2.1
Bubble period	4.8
Spain	
Peak to peak (80Q3 to 92Q2)	1.9
Trough to trough (81Q1 to 93Q2)	2
Bubble period	4
Mexico	
Peak to peak (81Q4 to 94Q4)	2.7
Trough to trough (86Q3 to 92Q2)	2.6
Bubble period	4.2

Source: HSBC

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20. The problems of low inflation: part 1

- Money illusion
- Economic stabilisation
- Moral hazard

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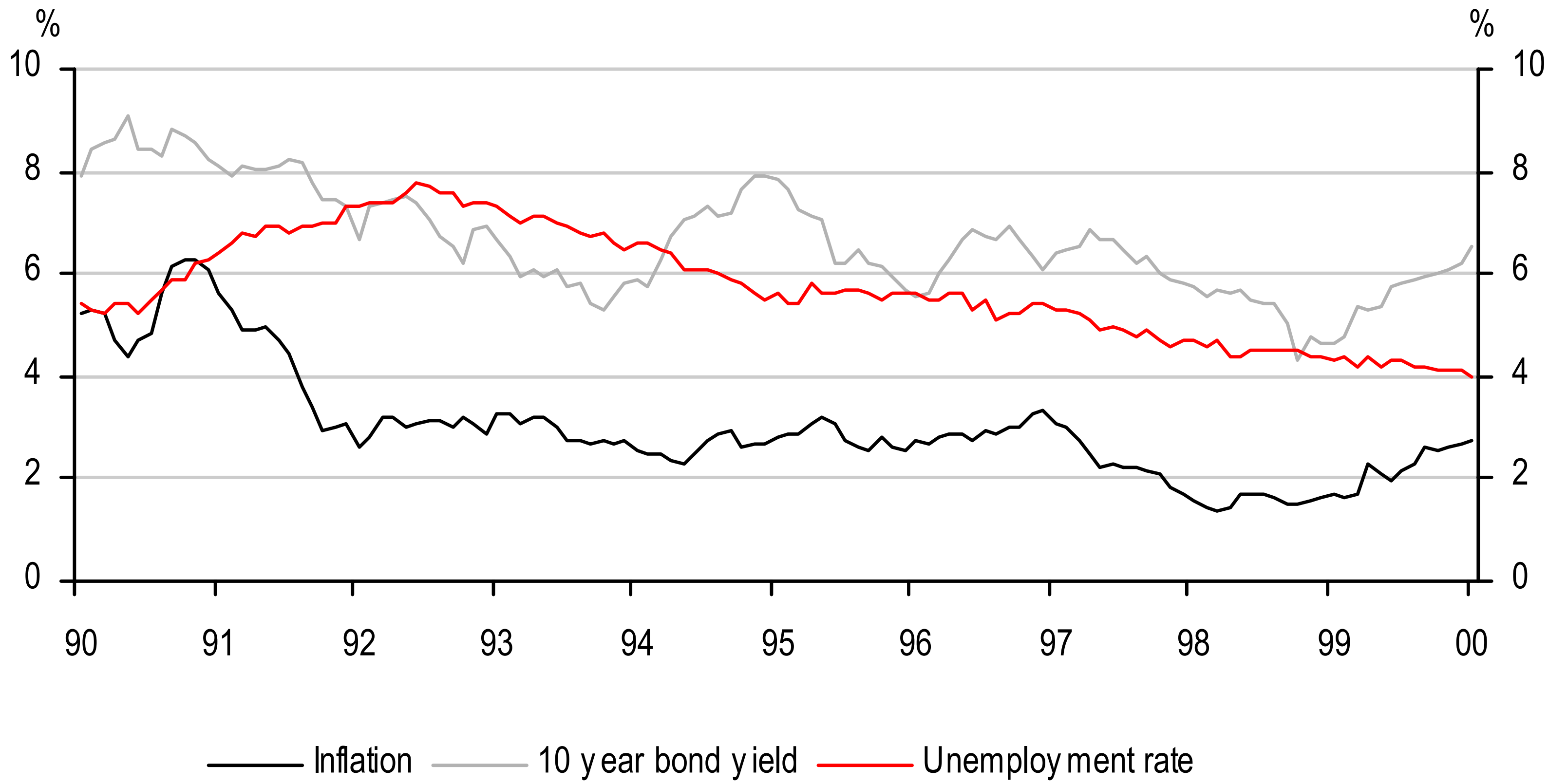
21. The problems of low inflation: part 2

- Difficult to get low real interest rates
- Difficult to improve supply of credit through steep yield curve

22. America's 1990s success



Source: HSBC and Thomson Financial Datastream

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23. Japan and the US compared – the US in the 90s was similar to Japan in the 80s

Five years to:	US GDP, % annualised growth	Japanese GDP, % annualised growth	US inflation, % annualised rate	Japanese inflation, % annualised rate	US long rates, average percentage rate	Japanese long rates, average percentage rate
1965	5.0	9.2	1.3	n.a	4.1	n.a
1970	3.4	11.1	4.3	n.a	6.0	n.a
1975	2.7	4.5	6.8	11.3	7.0	8.2
1980	3.7	5.7	8.9	6.7	8.9	7.9
1985	3.1	3.3	5.5	3.0	12.2	7.2
1990	3.3	5.0	4.0	1.6	8.4	5.5
1995	2.4	1.4	3.1	1.4	6.9	4.2
2000	4.1	1.3	2.5	0.1	6.0	1.9

Source: HSBC and Thomson Financial Datastream

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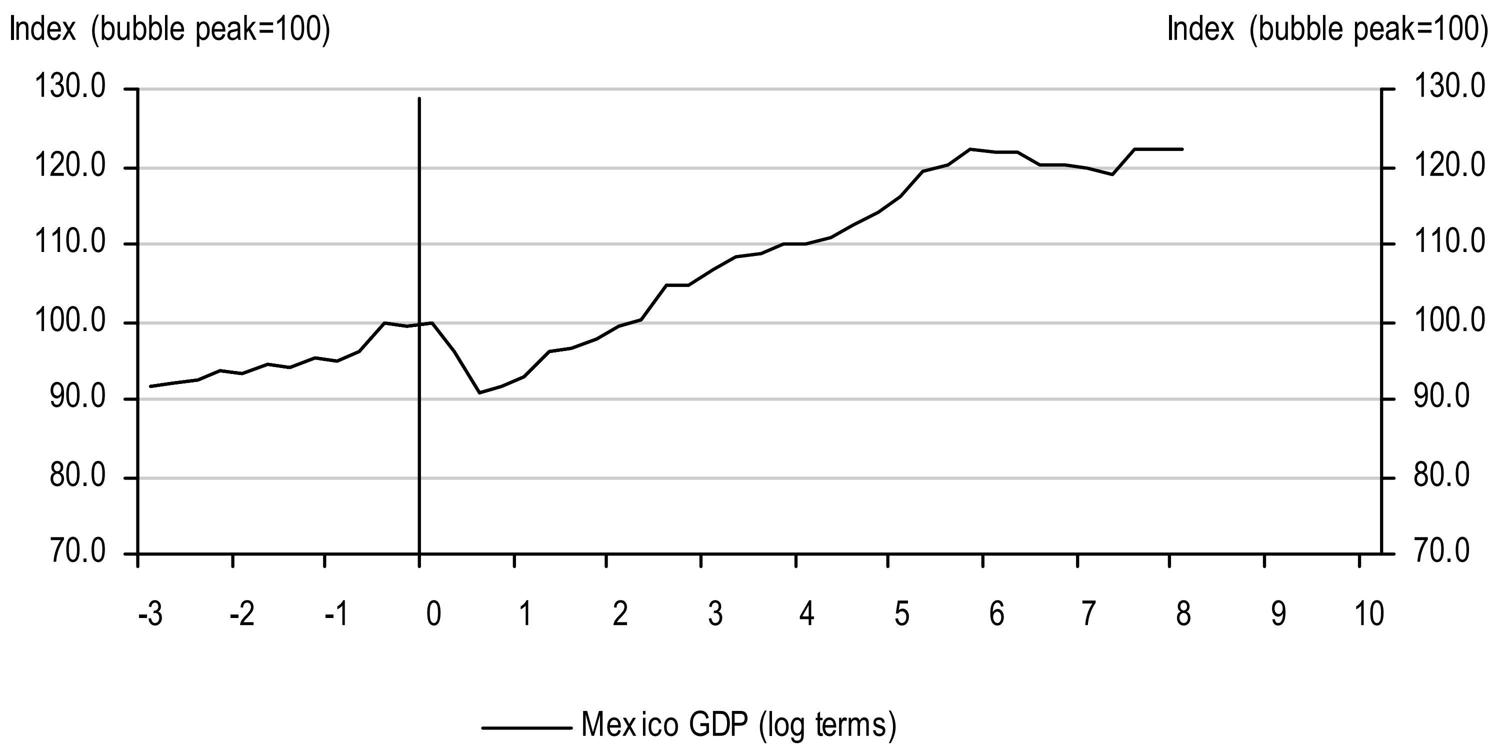
24. Planned and unplanned recessions

- Planned recessions bring their own benefits: lower inflation boosts real wages and real asset values, lower inflation reduces inflation volatility and improves resource allocation, and falling interest rates confirm that the pain was worth taking.
- Unplanned recessions reflect collapsing expectations in the private sector and policy changes may be ill-suited to deliver recovery because of a legacy of high debt levels.

25. Quick fix solution: for some, but not for all

- Emerging markets
- Small economies with large export sectors
- Large economies with small (as a share of output) export sectors.

26. Mexico collapsed but then rebounded very strongly



Source: HSBC and Thomson Financial Datastream. Vertical line indicates peak of bubble

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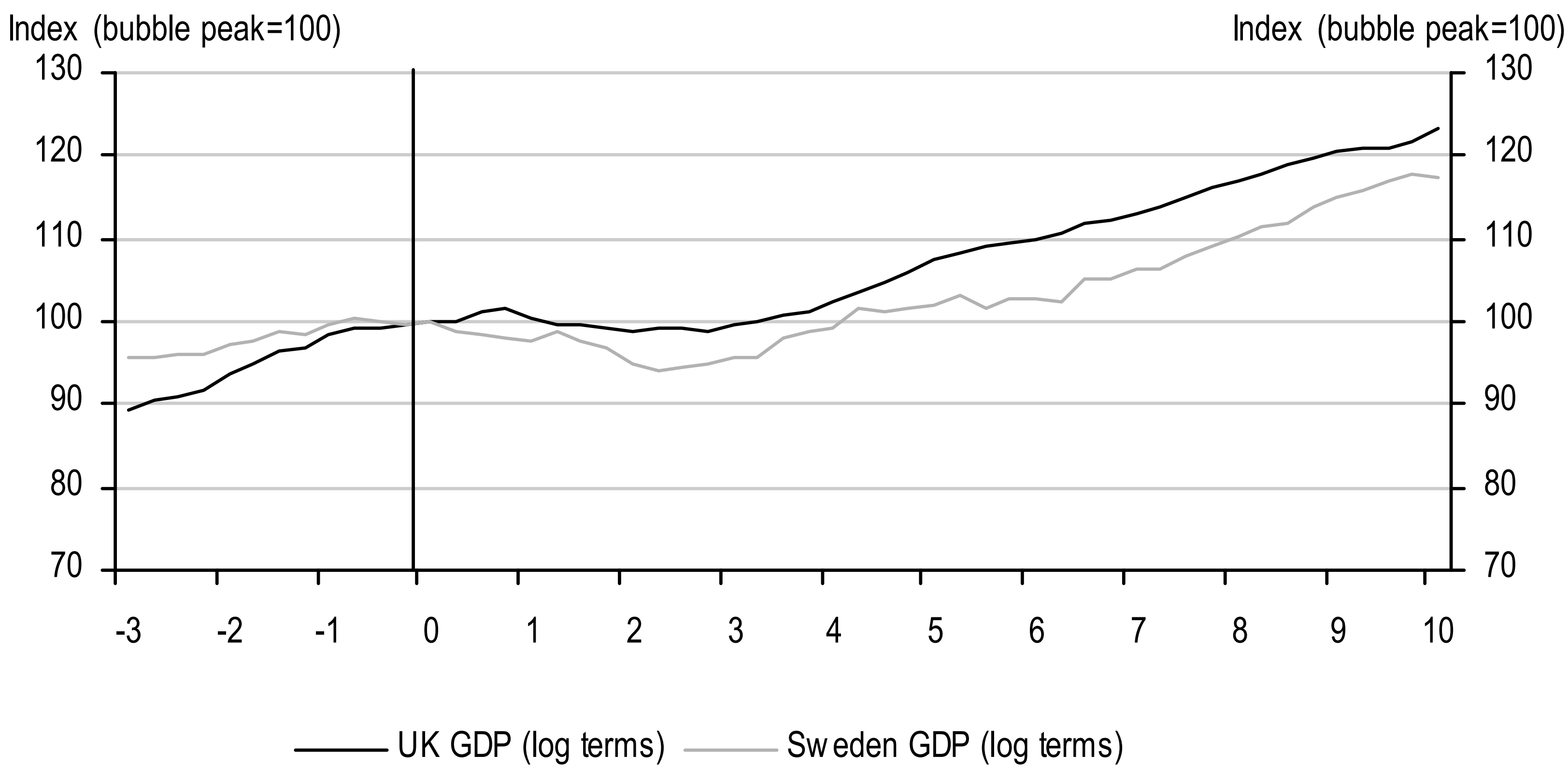
27. The UK and Sweden suffered big initial losses



Source: HSBC and Thomson Financial Datastream. Vertical line indicates peak of bubble

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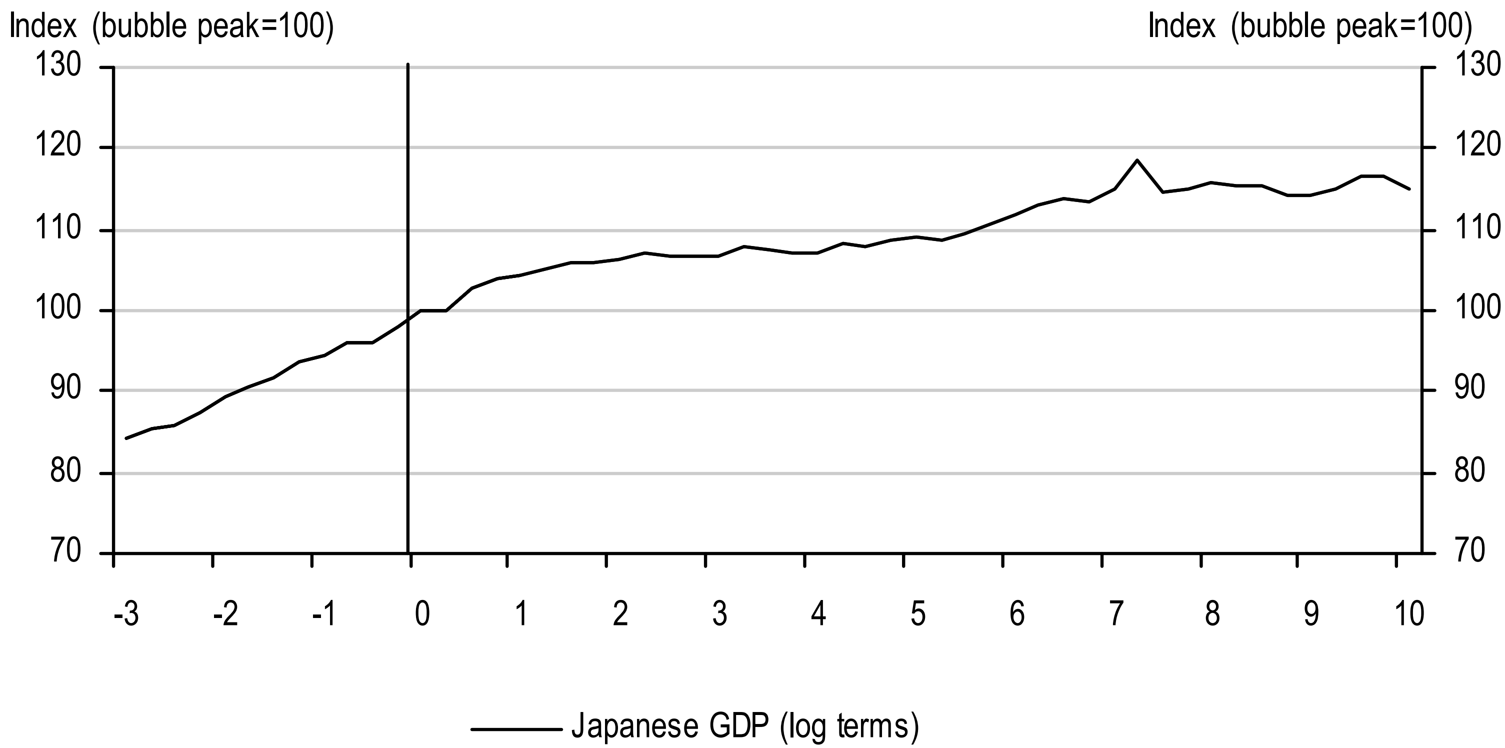
28. Japan’s bubble burst but output losses were slow in coming



Source: HSBC and Thomson Financial Datastream. Vertical line indicates peak of bubble

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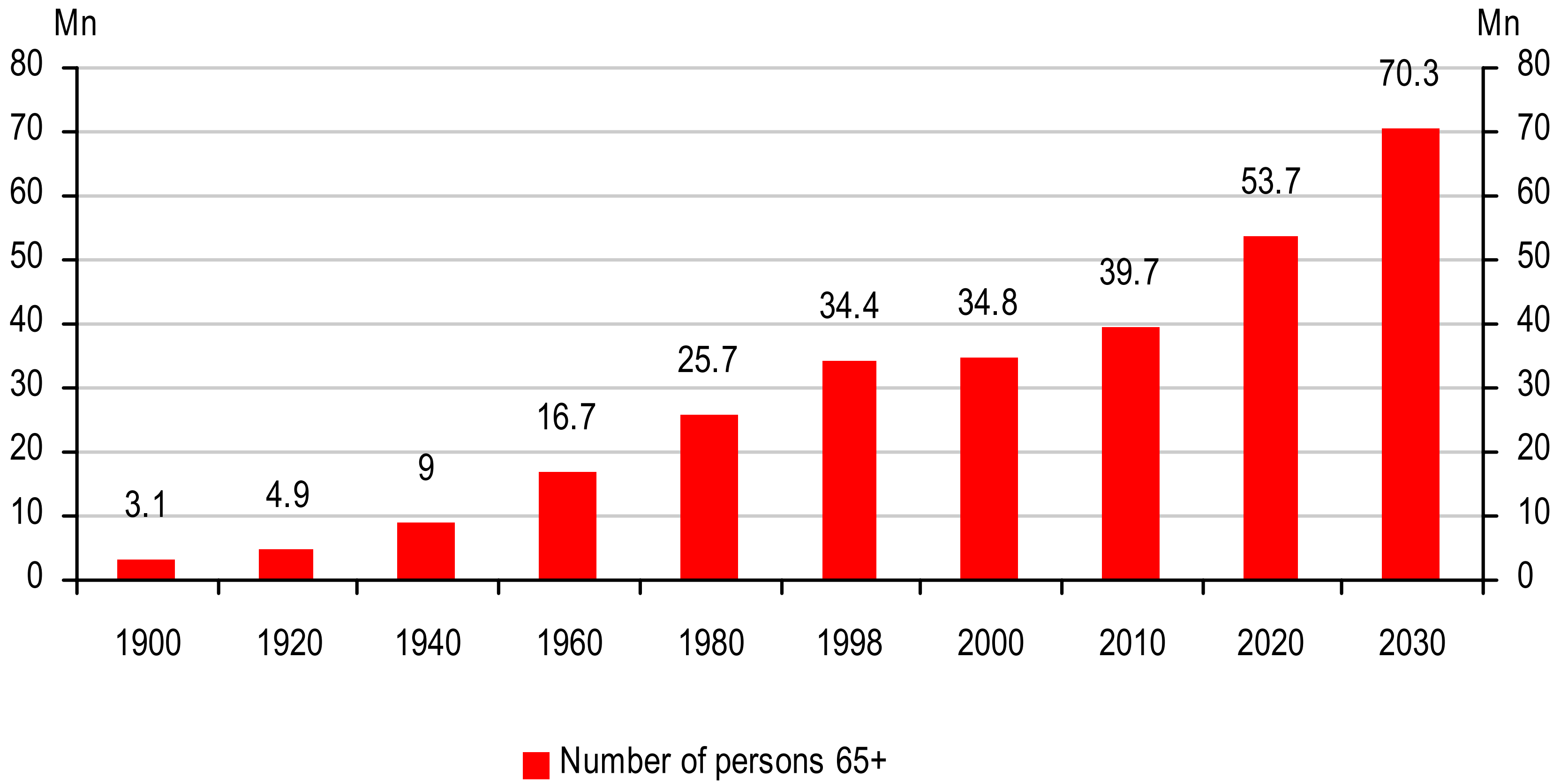
29. US ageing population and savings behaviour



Source: US Bureau of the Census

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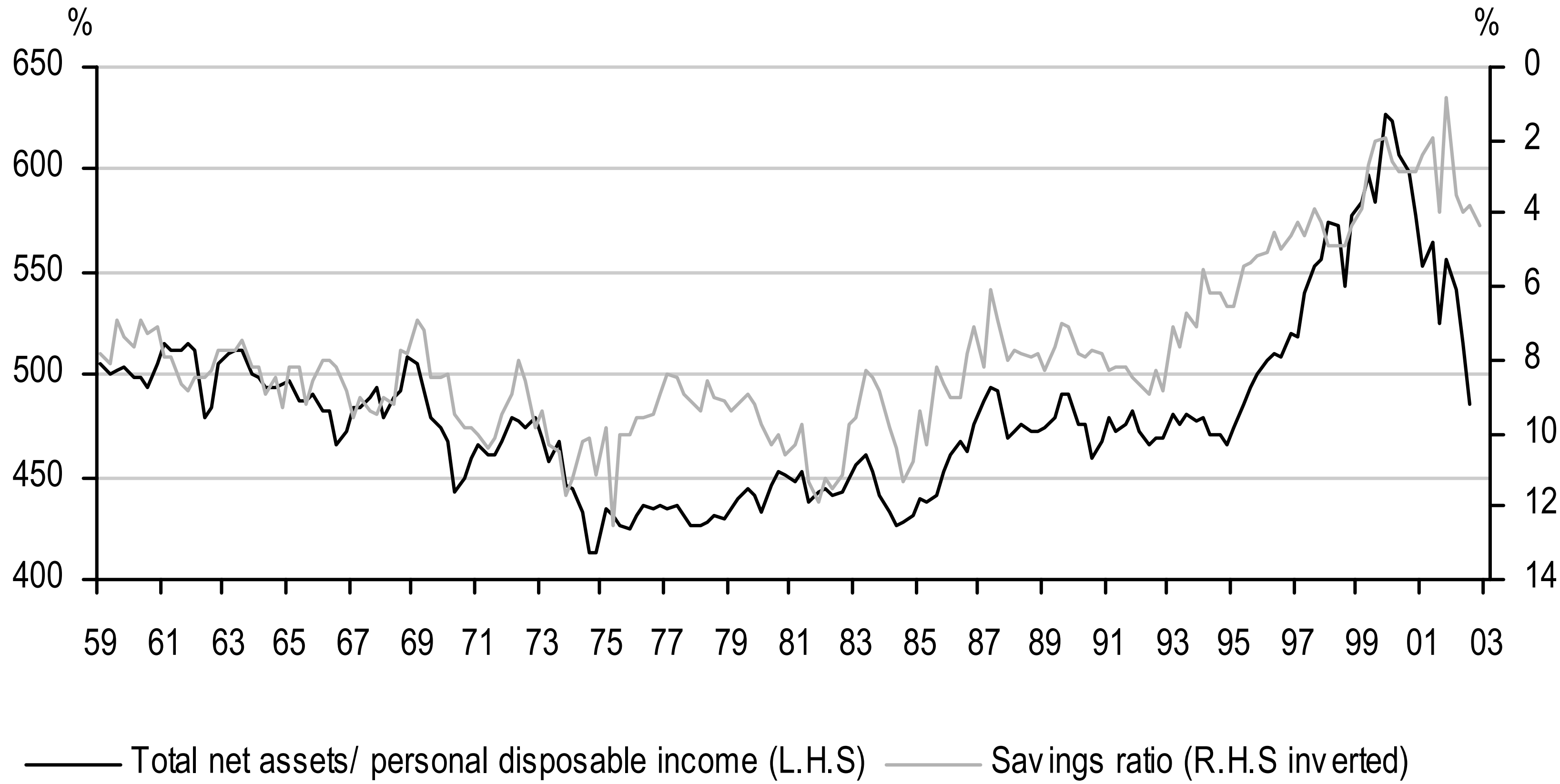
30. The saving ratio reacts to changes in household net worth in the US



Source: Thomson Financial Datastream.

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31. The risk of deflation

- Deflation is rooted in asset price developments
- Big asset price falls and residual high debt levels increase deflation risk
- People choose to repay debt...
- ...leaving demand levels very vunerable...
- ...putting downward pressure on price level...
- ...and threatening higher real debt levels.

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32. Unorthodox policy options

Targeting interest rates further down the yield curve

Monetising government borrowing

Directly restructuring debt or managing debt defaults

Changing from an inflation target to a price target

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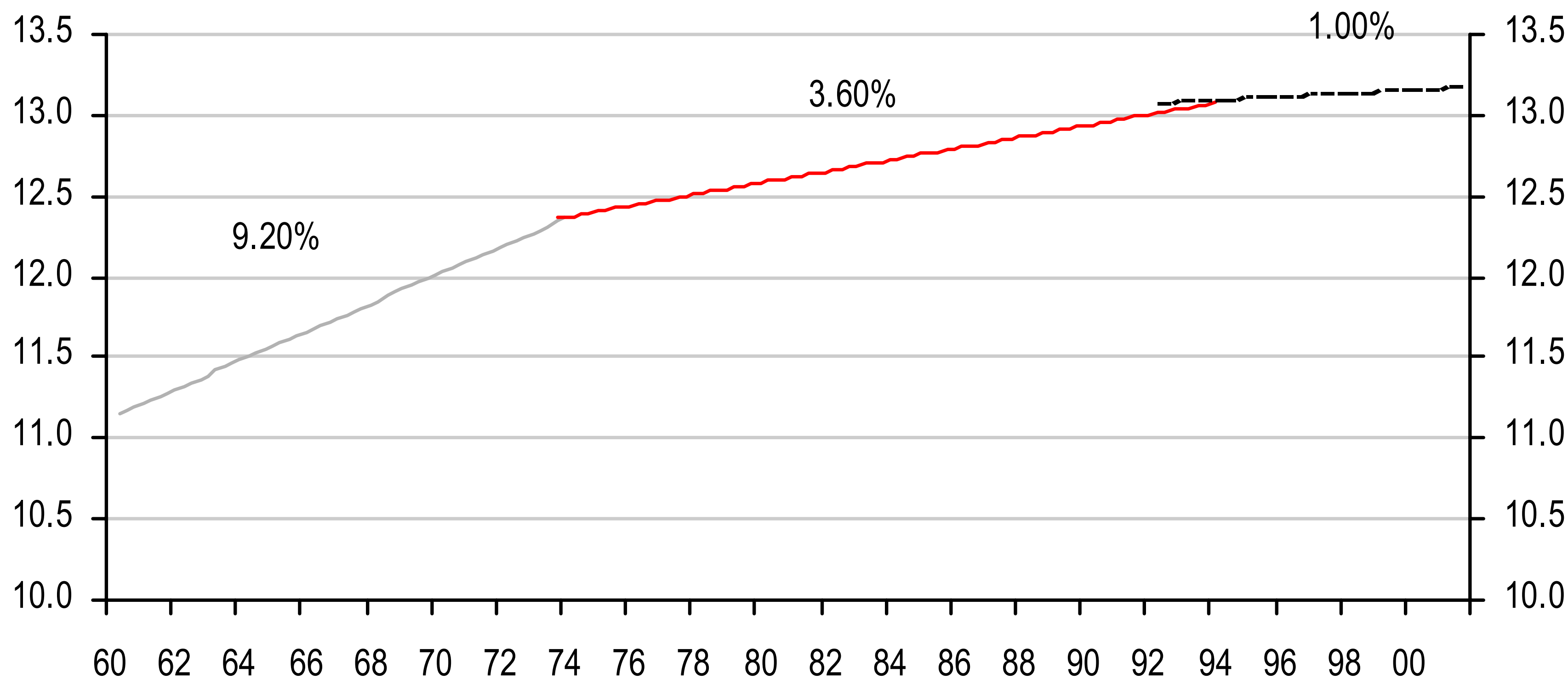
33. Japan's decline and fall



Source: Thomson Financial Datastream and OECD. All GDP levels expressed in log terms

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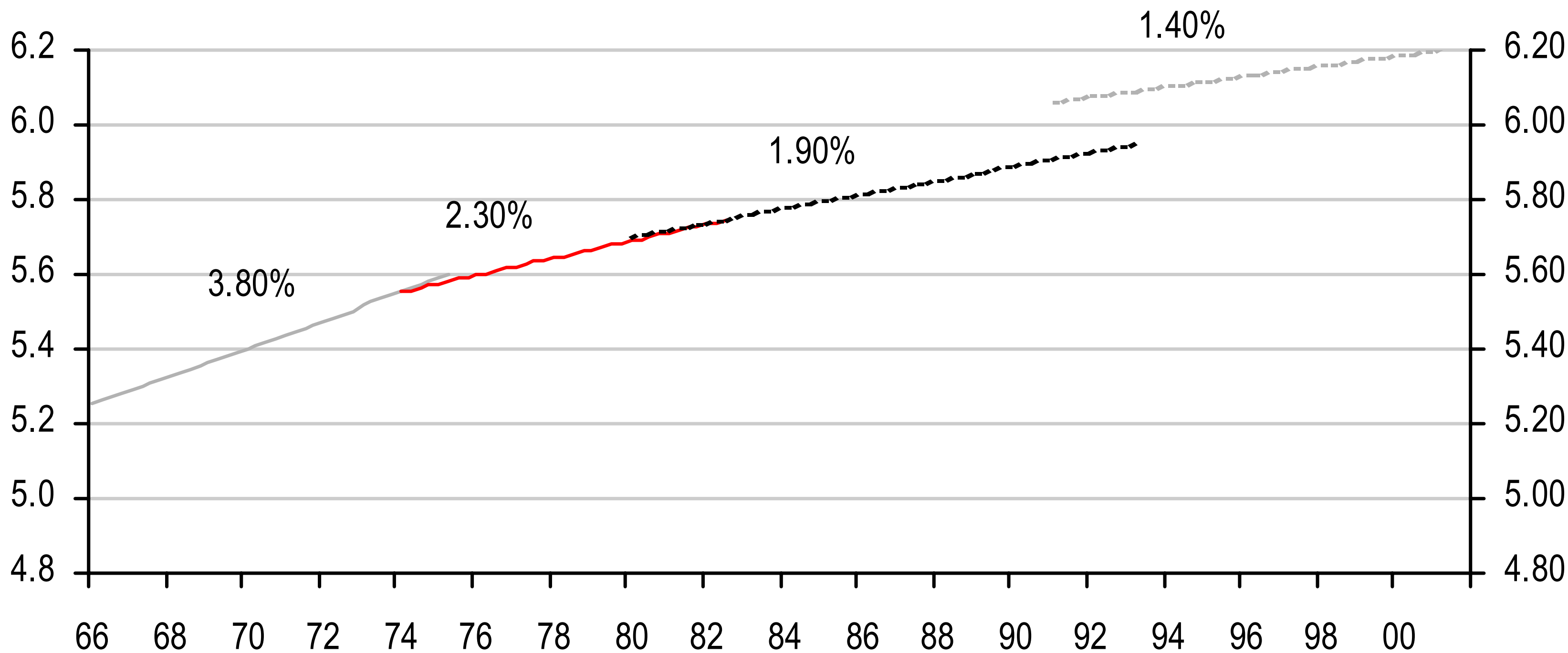
34. Germany heads to slower growth



Source: Thomson Financial Datastream. All GDP levels expressed in log terms. The leap in 1990 reflects reunification

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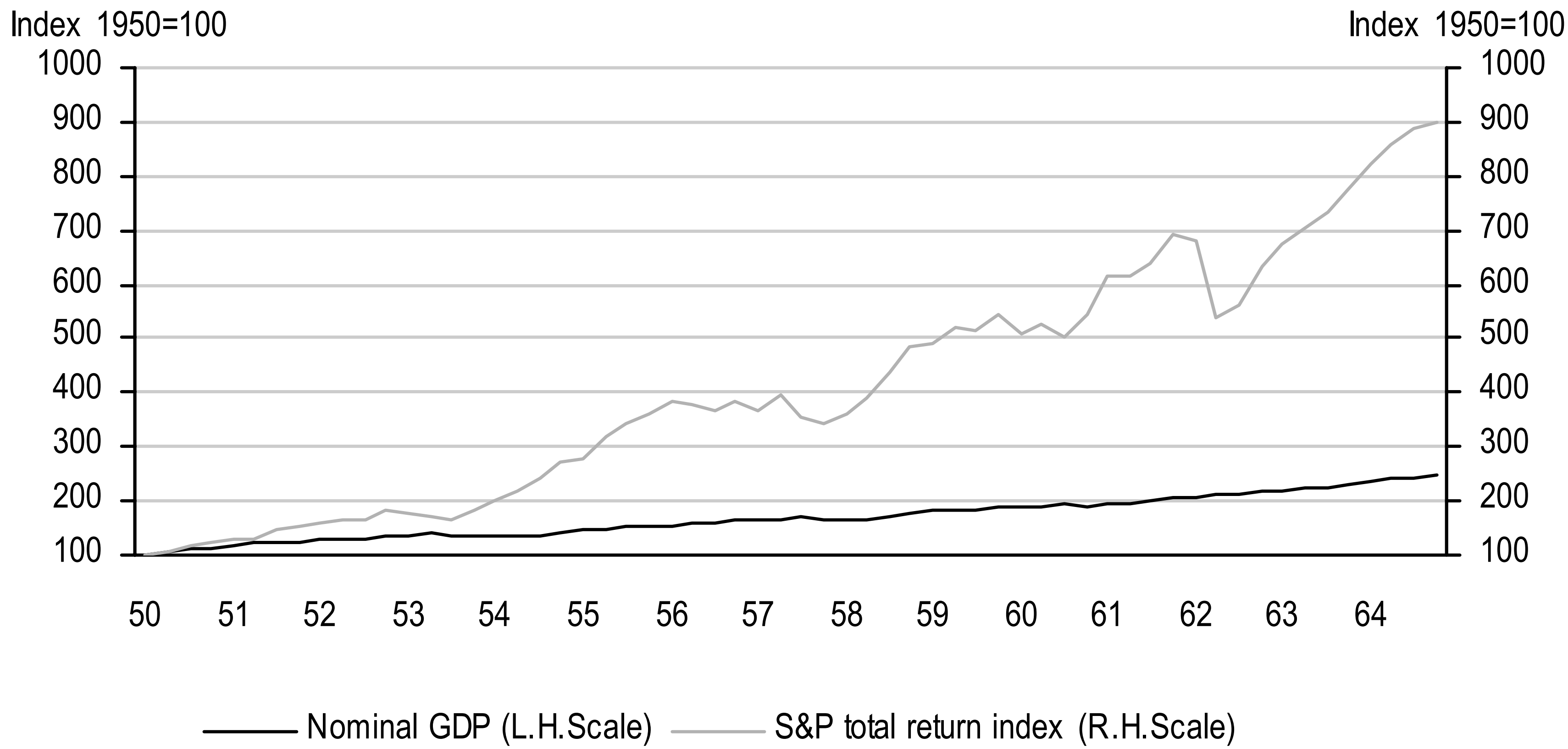
35. US GDP and financial returns: the bullish 50's and early 60's



Source: HSBC and Thomson Financial Datastream

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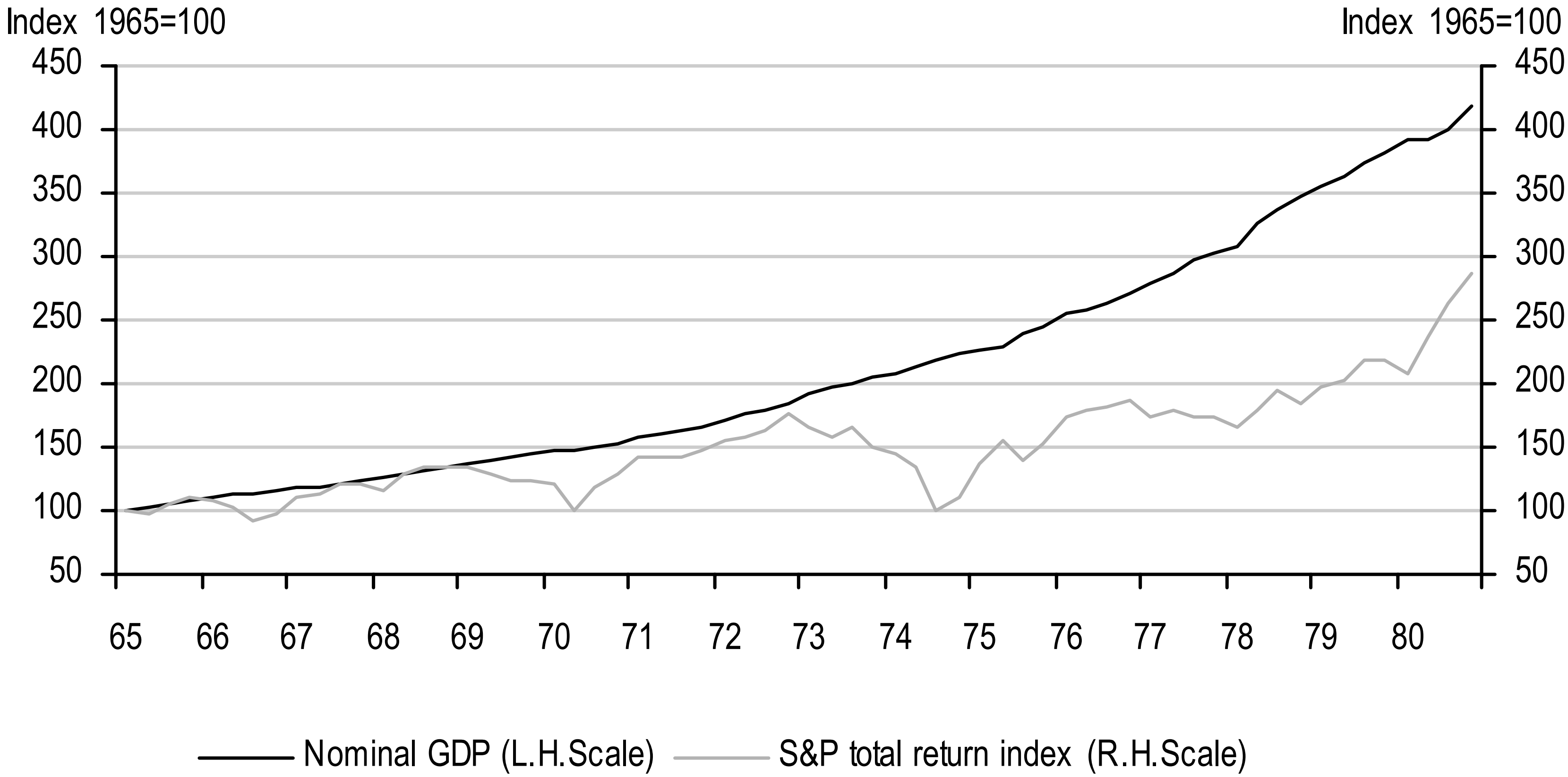
36. US GDP and financial returns: the bearish late 1960's and 70's



Source: HSBC and Thomson Financial Datastream

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