BANK FOR INTERNATIONAL SETTLEMENTS

Is the long-term interest rate a policy victim, a policy variable or a policy lodestar?

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"The yield curve and new developments in macro-finance: what have we learnt from the 2007-2010 financial crises?"

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A SYNOPSIS*

1. The real long-term interest rate – a widely used guide to many policy choices – has become a policy victim. It has been contaminated by many different government policies … not mainly by monetary policy ease but rather by policies related to the investment of forex reserves, new financial sector regulation and accounting rules

2. Huge rise in government debt and government-guaranteed mortgage debt in the past 4 years will ultimately increase uncertainty about future interest rates – and may raise the real long-term interest rate

3. As asset substitutability along the maturity spectrum falls, central bank balance sheet policies and government debt management choices become more effective macroeconomic tools … the long-term rate becomes a policy variable. This will require policy coordination between central banks and government debt managers

4. The long-term rate cannot be a reliable guide to policy if these distortions cannot be quantified

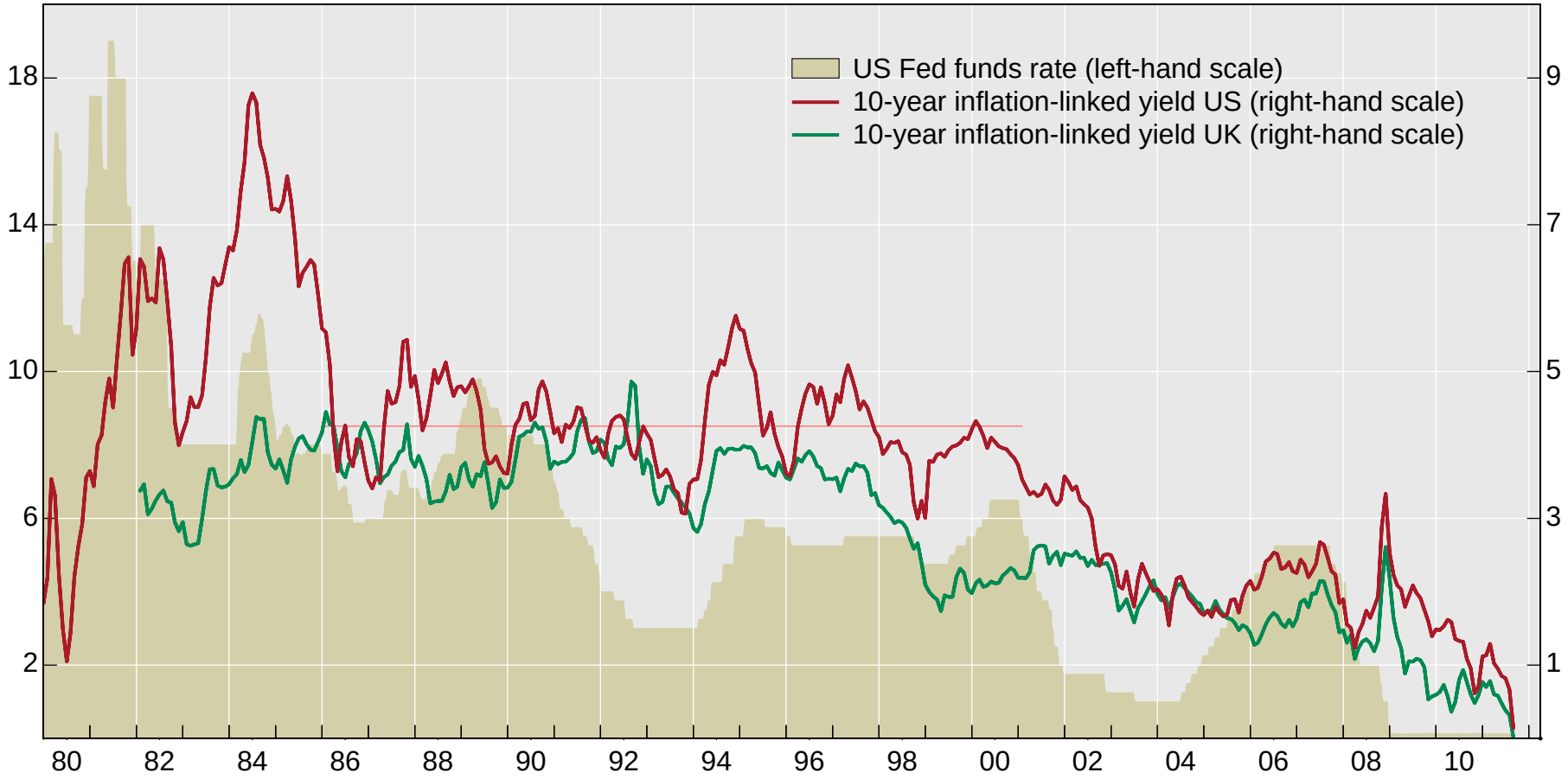
5. Greater volatility in the long-term rate could threaten financial stability and create awkward dilemmas for monetary policy

* This presentation draws on *Fiscal dominance and the long-term interest rate*. Financial Markets Group, London School of Economics. Special Paper No 199. May. http://www2.lse.ac.uk/fmg/workingPapers/specialPapers/home.aspx

Graph 1

REAL LONG-TERM US TREASURY YIELDS[1]

In per cent



[1] Ten-year Treasury Inflation Indexed zero coupon yields (TIPS); prior to 1999, return on ten-year zero coupon bond deflated by centered three-year moving average of core PCE inflation. The horizontal line indicates the 1986–2000 average of the 10-year US inflation-linked yield (4.26%). The average of the Fed funds rate over that period was 5.82%, shown on the left-hand scale.

Source: National data; BIS calculations.

Table 1

Standard deviations of interest rate changes

	Fed funds	**3-month T-bill**	**10-year nominal yield**	**10-year real yield**	**Term premium[1]**
1965.1 to 1978.9	0.45	0.37	**0.19**	na	0.33
1981.1 to 1998.12	0.24	0.20	0.25	0.25	0.23
1999.1 to 2011.8	0.20	0.21	**0.24**	0.20	0.28

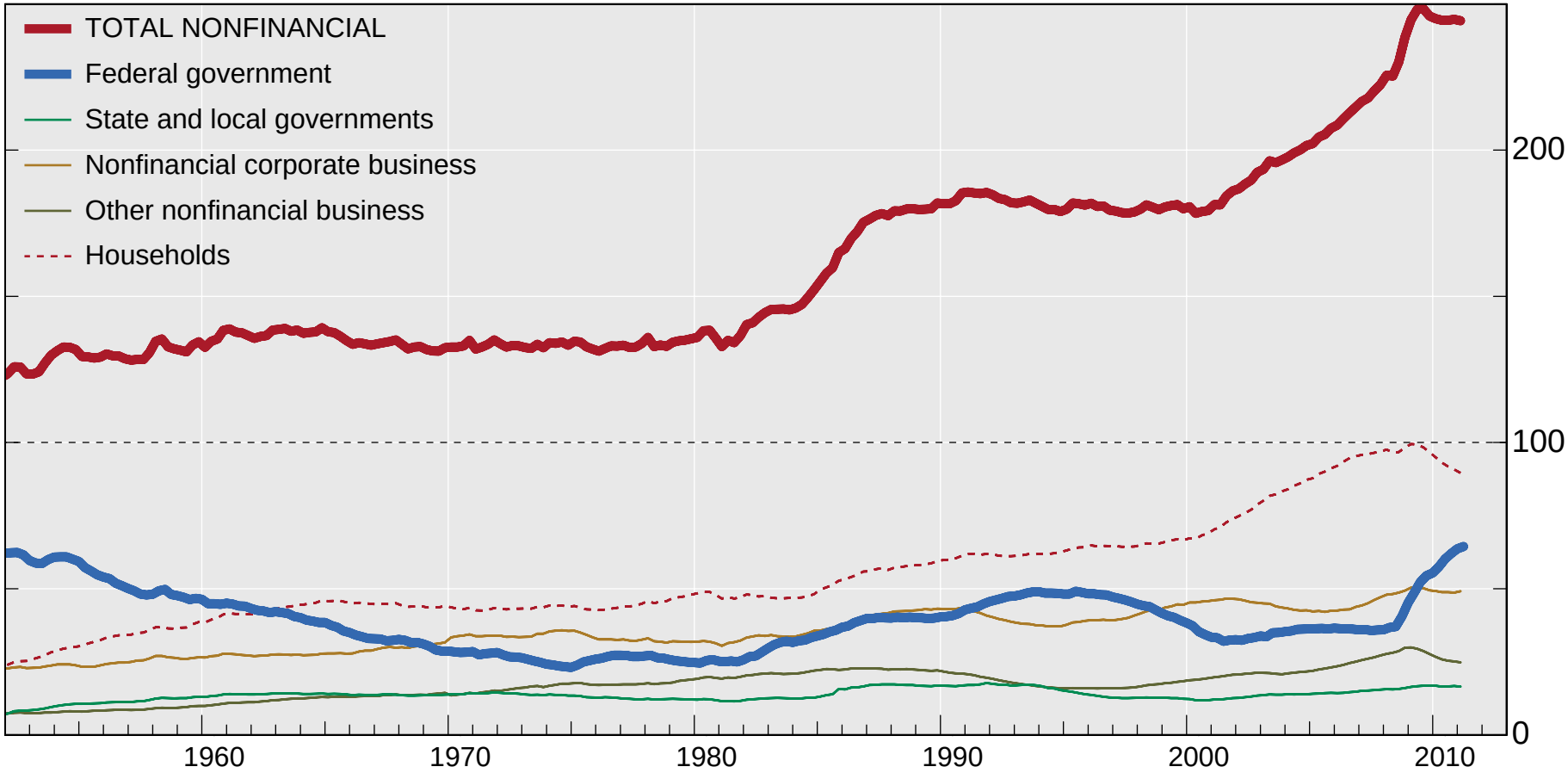
[1] 10-year nominal yield less 3-month Treasury bill rate.

Note: Standard deviation of the first differences (ie $R_t - R_{t-1}$) of the monthly averages of daily observations of interest rates measured in percentage points.

Graph 2

OUTSTANDING DEBT OF DOMESTIC US NONFINANCIAL BORROWERS

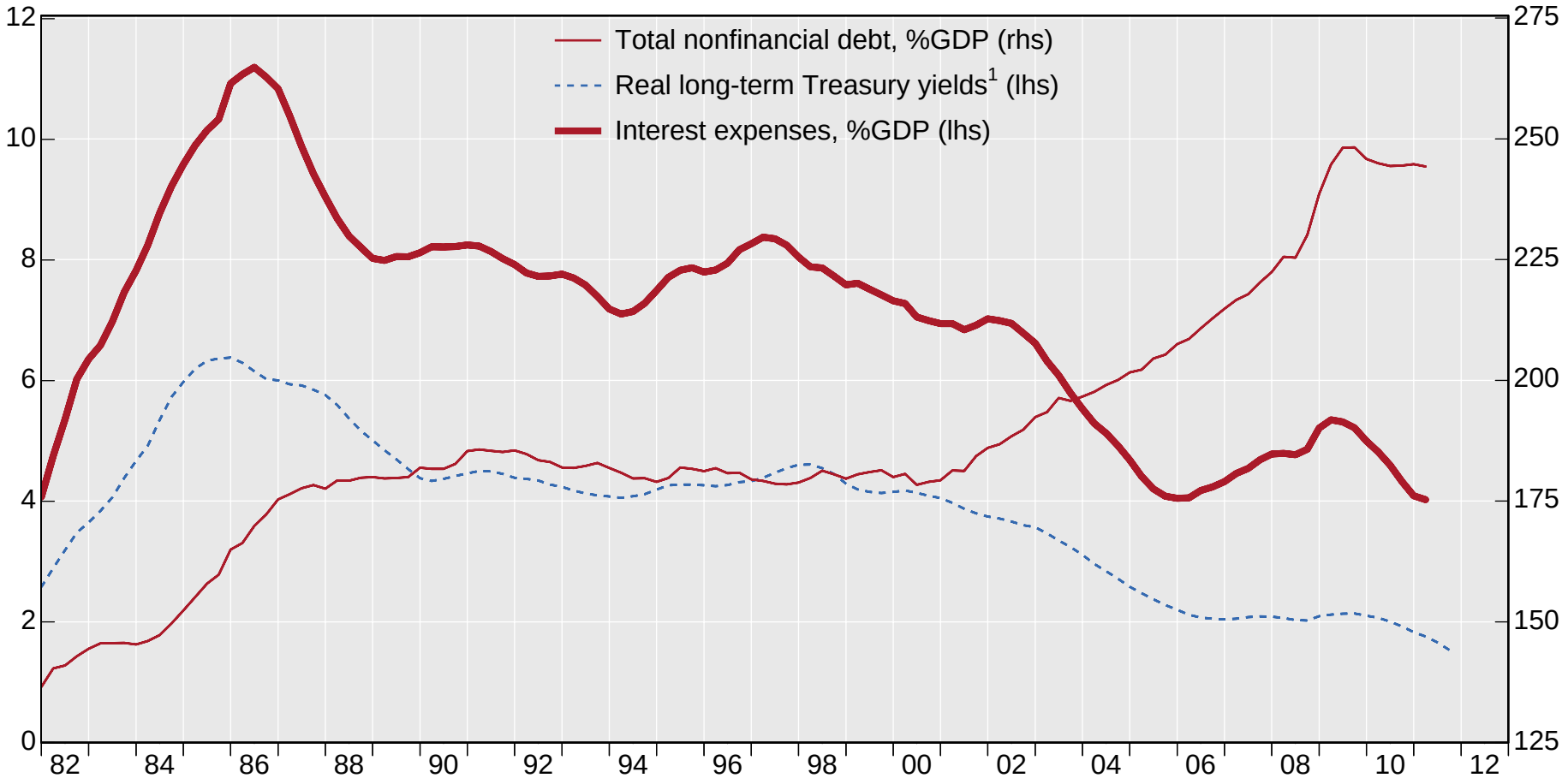
As a percentage of GDP



Sources: Board of Governors of the Federal Reserve.

Graph 3

LIGHTENING THE INTEREST EXPENSE OF HEAVY DEBT

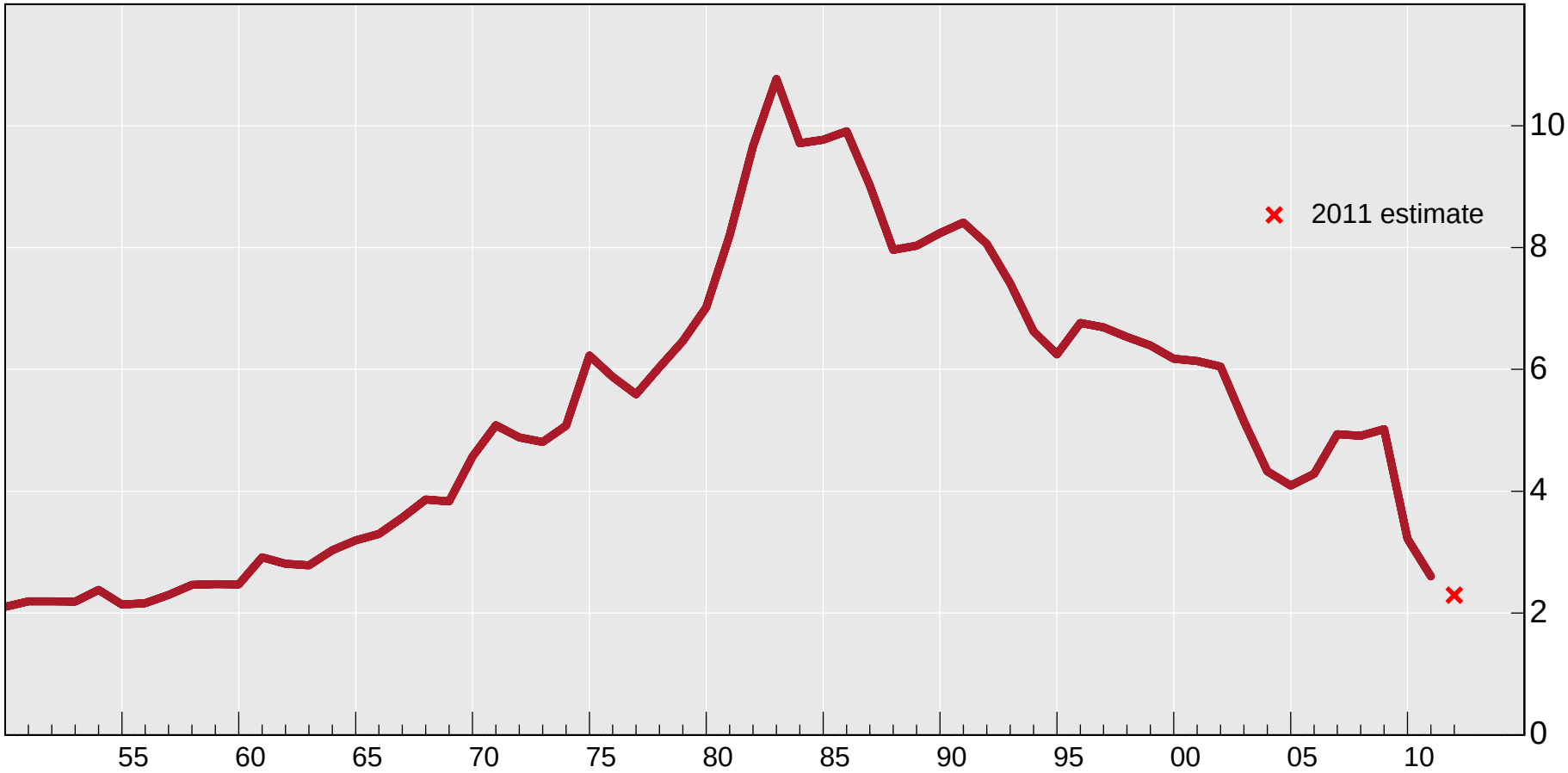


[1] Four-year moving average, shown at end

Sources: Board of Governors of the Federal Reserve..

Graph 4

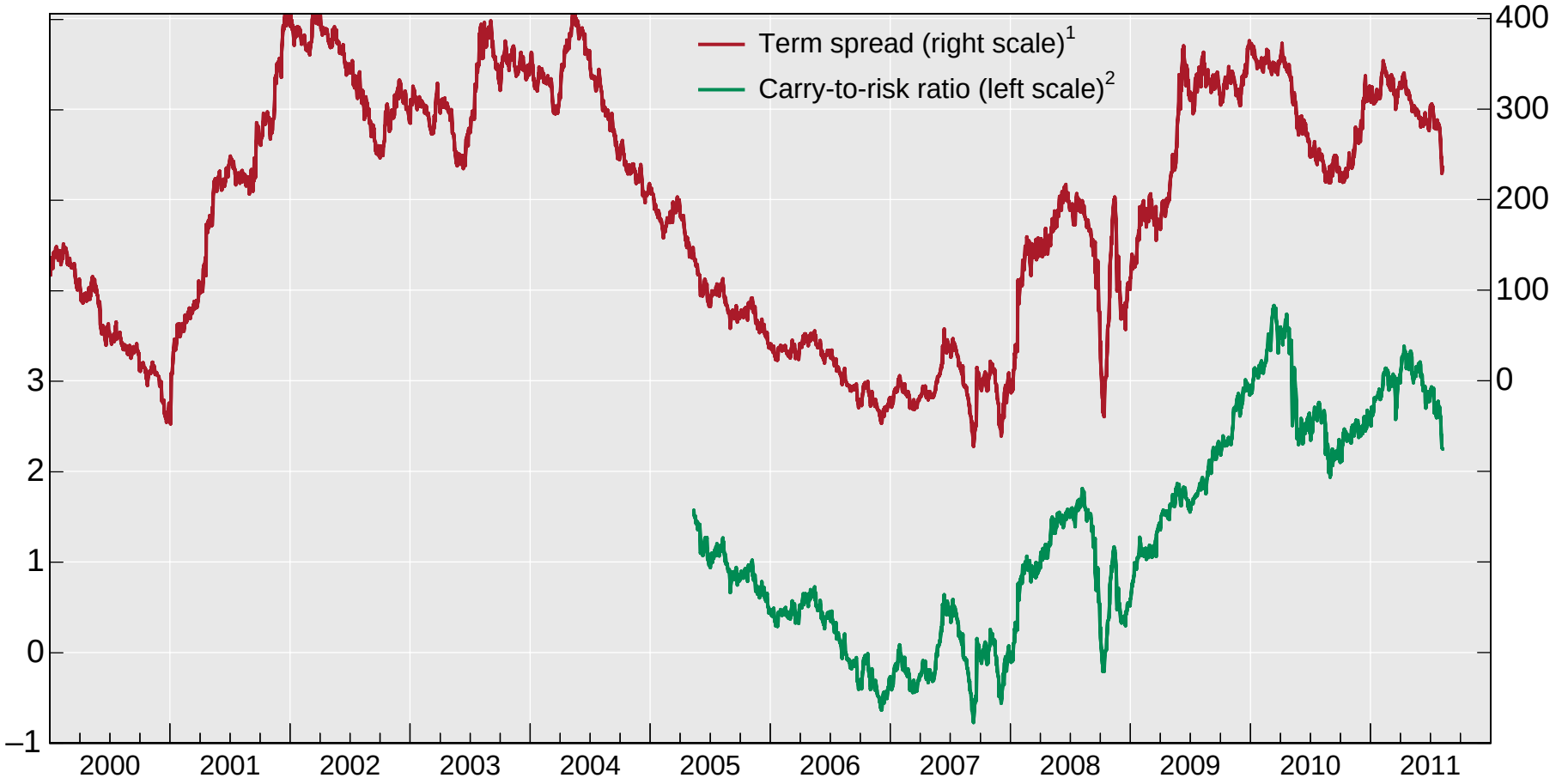
NET INTEREST PAYMENTS AS % OF US FEDERAL DEBT



Source: Economic Report of the President.

Graph 5

INCENTIVES FOR INTEREST RATE CARRY TRADES



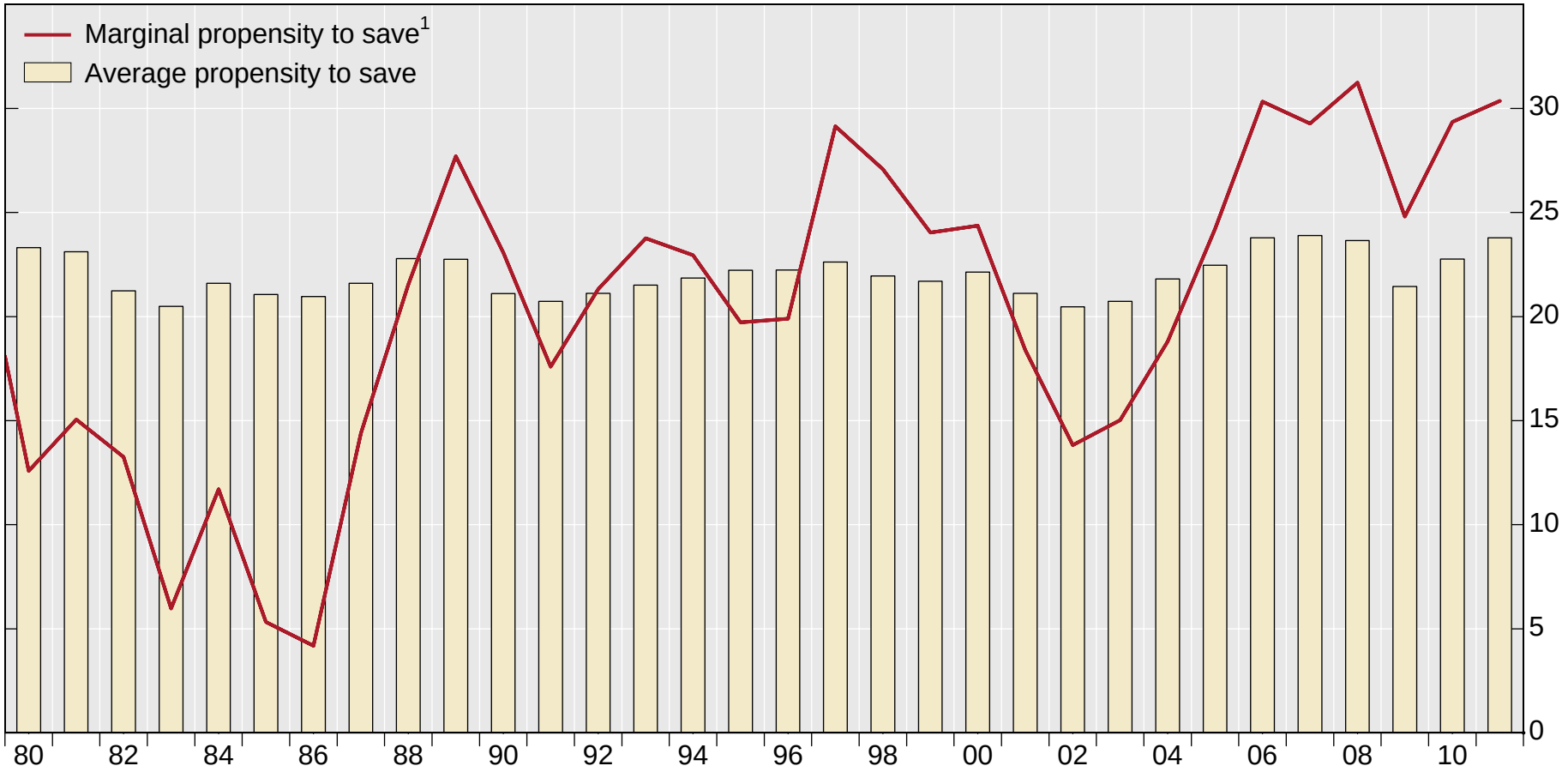
[1] Ten-year swap rate minus three-month money market rate, in basis points. [2] Defined as the differential between 10-year swap rate and three-month money market rate divided by the three-month/10-year swaption implied volatility.

Sources: Bloomberg; BIS calculations.

Graph 6

THE GLOBAL PROPENSITY TO SAVE

As a percentage of GDP



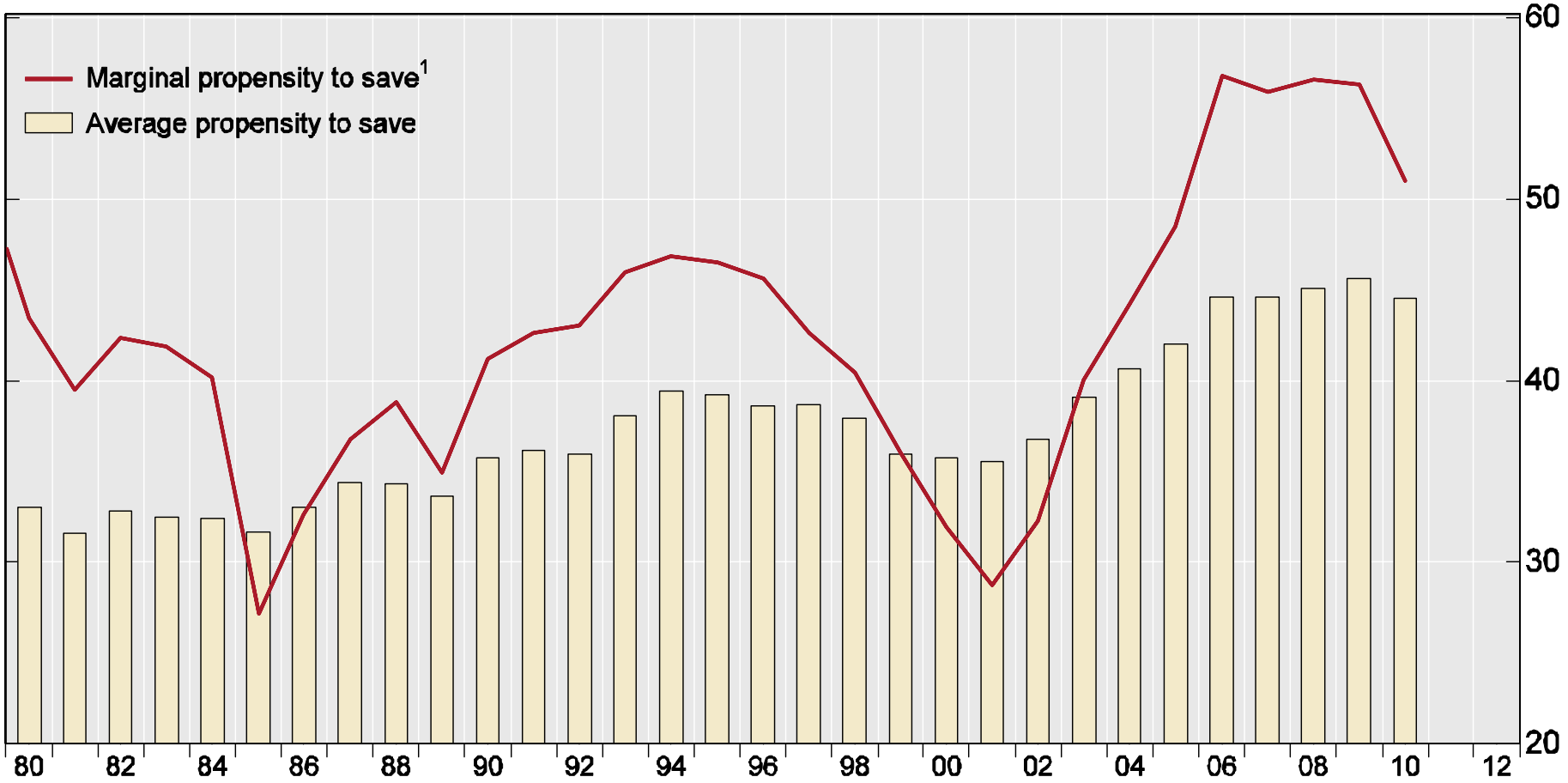
[1] Calculated over 7 years.

Sources: IMF World Economic Outlook; World Bank *World Development Indicators*.

Graph 7

THE PROPENSITY TO SAVE IN DEVELOPING ASIA

As a percentage of GDP



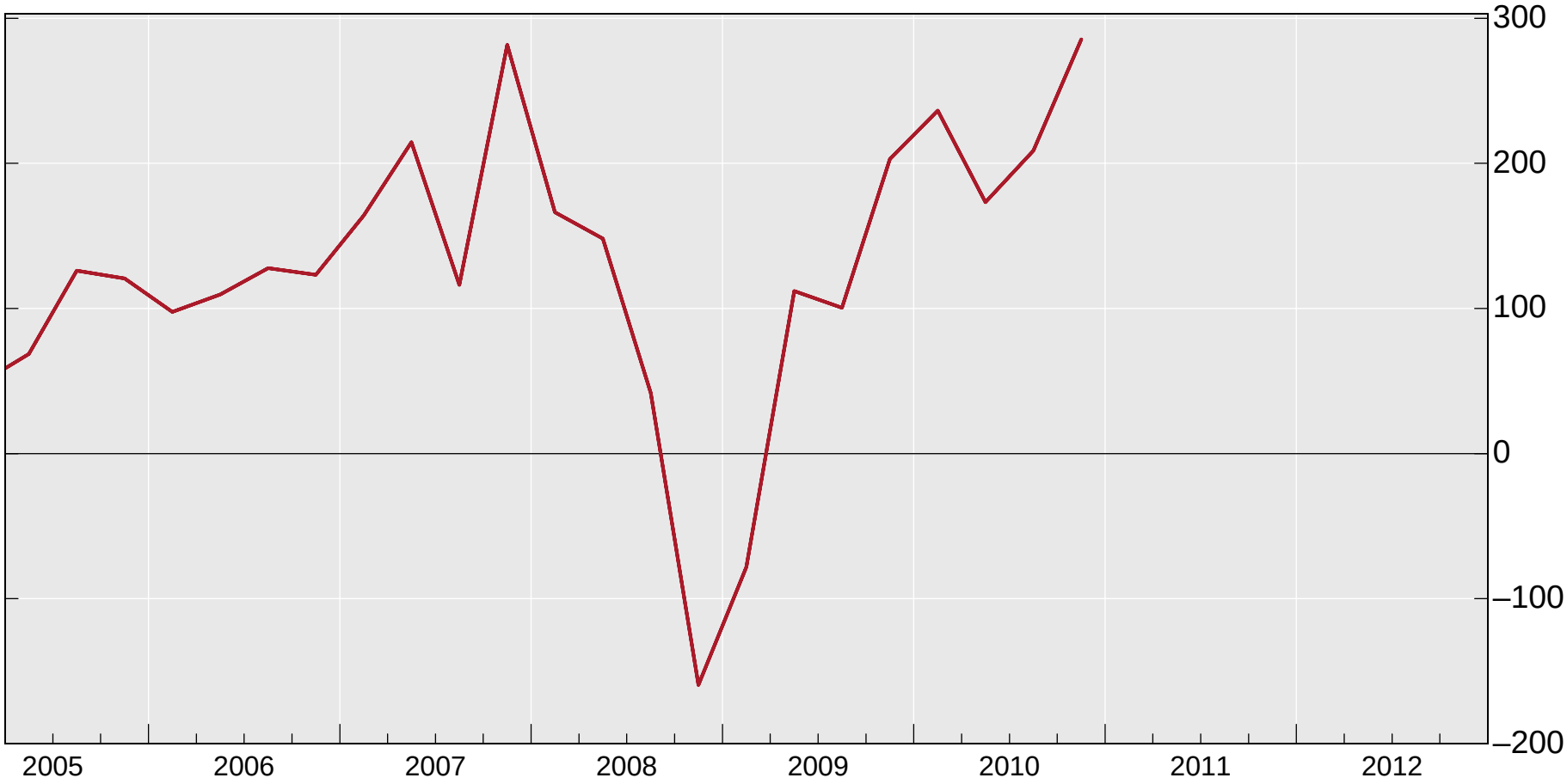
[1] Calculated over 7 years.

Sources: IMF World Economic Outlook; World Bank World Development Indicators.

Graph 8

GROSS CAPITAL FLOWS TO DEVELOPING ASIA[1]

In billions of US dollars



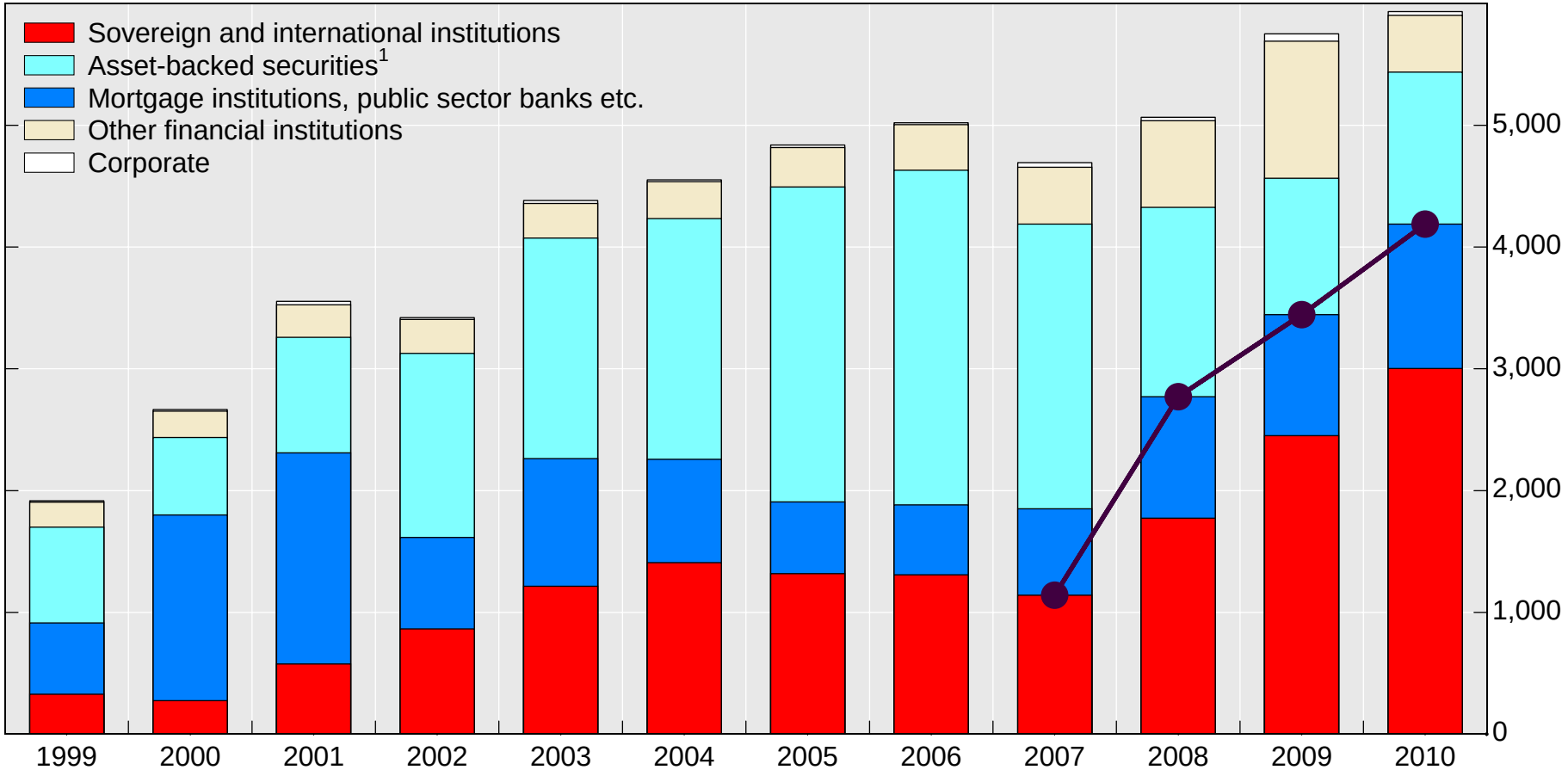
[1] Sum of direct investment, portfolio investment and BIS reporting banks loans to China, Chinese Taipei, Hong Kong SAR, India, Indonesia, Korea, Malaysia, Philippines, Singapore and Thailand. Actual quarterly rates.

Sources: *IMF International Finance Statistics*; BIS Locational banking statistics by residence.

Graph 9

ISSUANCE OF AAA-rated SECURITIES

In billions of US dollars



[1] ABS, MBS and covered bonds.

Sources: Dealogic; BIS calculations.

Table 3

AAA-rated issuance by mortgage institutions, public sector banks[1]

$ billion

	2000-05[2]	**2006**	**2008**	**2009**	**2010**
US agencies [3]	1057	**567**	996	985	**1185**
Europe and Japan	27	6	1	8	1
Total	1083	573	997	993	1186

[1] As shown in Graph 9. [2] At average annual rate. [3] Fannie Mae, Freddie Mac and the Federal Home Loan Banks

Table 2

Floating rate issuance of AAA-rated securities by sector

As a % of total issuance

	Sovereign[1]	ABS[2]	Mortgage institutions[3]	Other financial firms	Non-financial corporations
2000	2	38	7	42	20
2005	4	59	15	29	12
2010	2	38	16	23	14

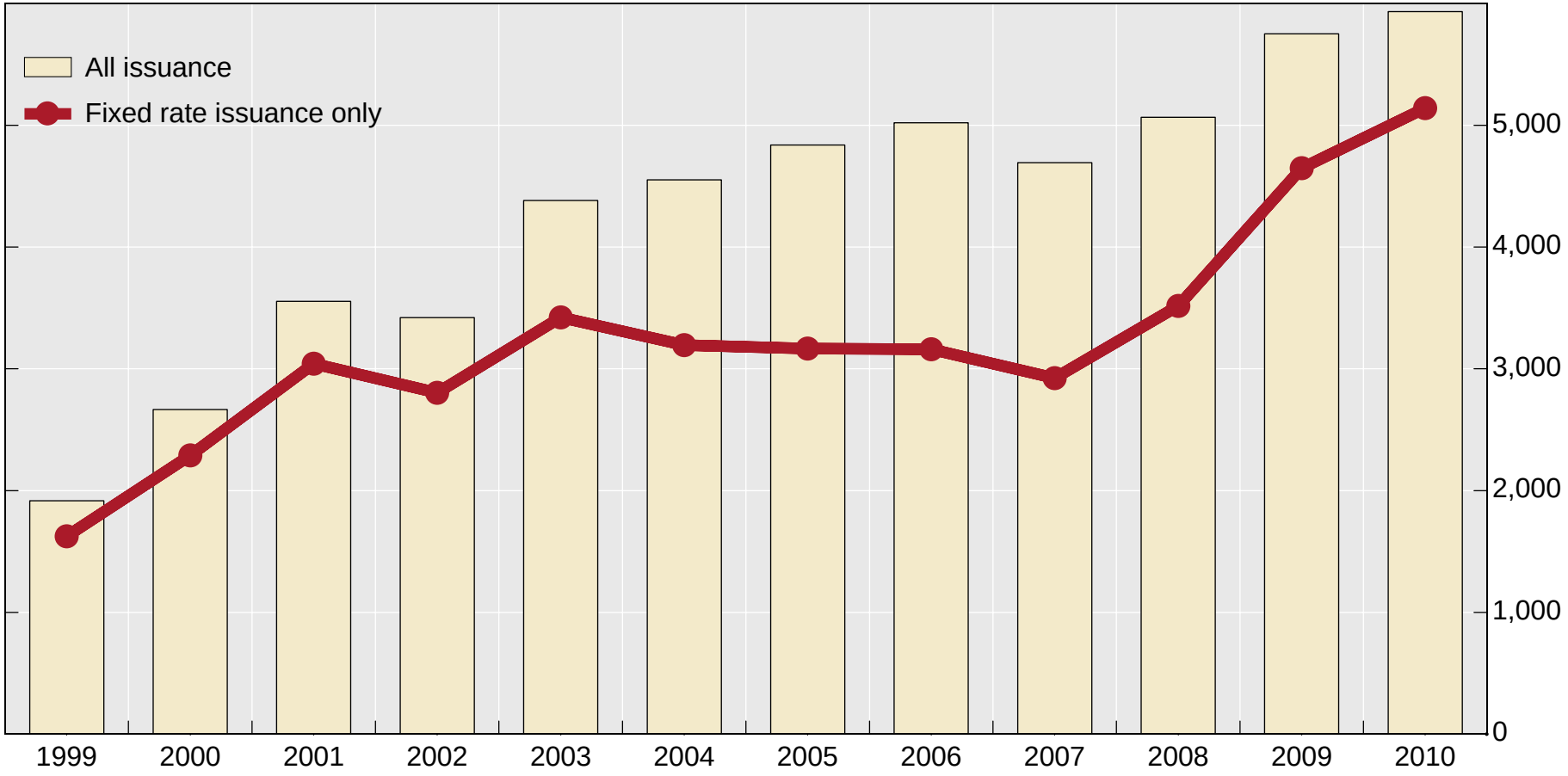
[1] Includes international institutions. [2] Asset-backed securities including MBS and covered bonds. [3] Mainly the US agencies – Fannie Mae, Freddie Mac and the Federal Home Loan banks.

Source: Dealogic, BIS calculations.

Graph 10

ISSUANCE OF AAA-rated SECURITIES: FIXED-RATE

In billions of US dollars



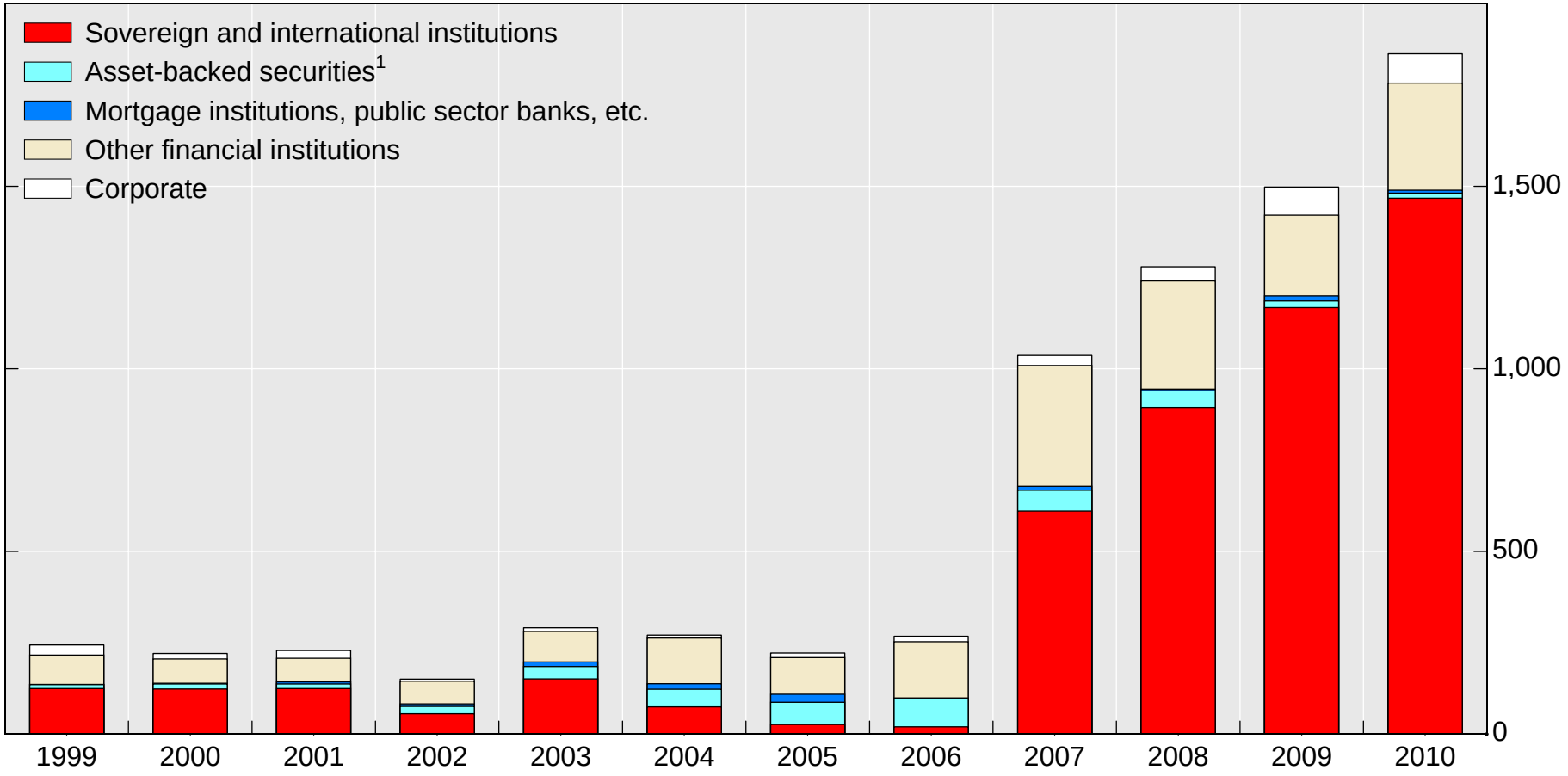
[1] ABS, MBS and covered bonds.

Sources: Dealogic; BIS calculations.

Graph 11

ISSUANCE OF AA-rated SECURITIES

In billions of US dollars

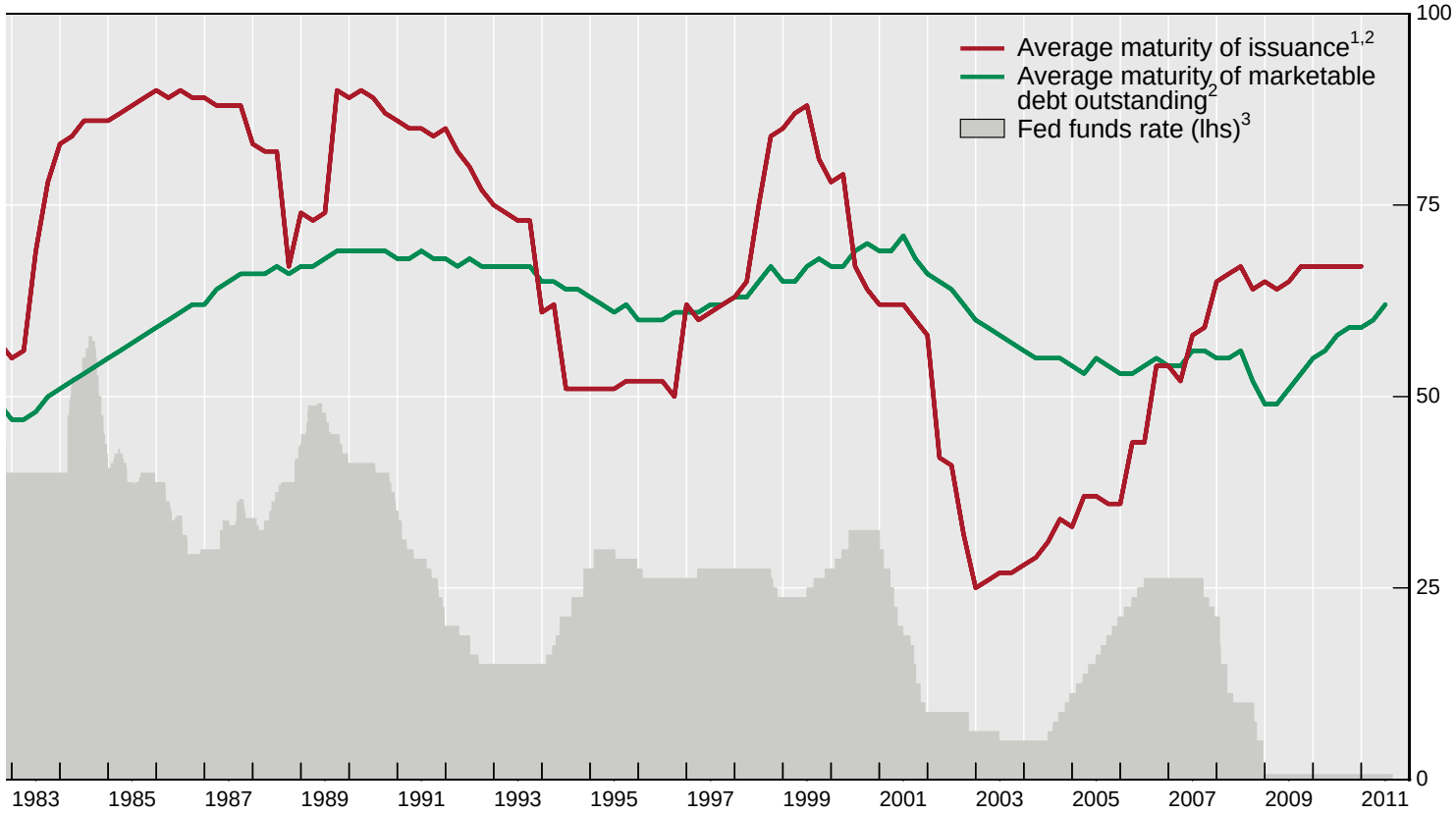


[1] ABS, MBS and covered bonds.

Sources: Dealogic; BIS calculations.

Graph 12

MATURITY OF US GOVERNMENT BONDS



ı average; shown at the end. [2] In months. [3] In per cent.

n; US Treasury.

Table 4

Composition of marketable US Federal government debt held by the public

$ billion

End of fiscal year (Sept)	Marketable securities		Currency & Federal Reserve obligations	Total	Money, Federal Reserve obligations and short-term debt
	(<or = 1 year)	(> 1 year)			
	(a)	(b)	(c)	(d)	= (a+c) % d
1st 2 years of crisis					
2007	955	3474	834	5263	**34%**
2009	1986	5002	1780	8768	**42.9%**
	+1031		+946		
3rd year of crisis					
2010[1]	1784	6692	1896	10419	**35.5%**
	–202		+163		
Latest QE					
2011 June	1529	7785	2659	11973	**35%**

[1] Using Monthly Statement of the Public Debt of the United States; Federal Reserve Table H.4.1.

Sources: This is an update of that in Tobin (1963) using US Treasury Bulletin; Federal Reserve Flow-of-Funds.

Table 5

Activity in US Treasuries

Change from 12 November to 30 June 2010

	$ billion	**Average maturity (years)**
Federal Reserve's portfolio	759	6.9
Stock of Treasury debt	1303	7.2
Treasury debt *minus* Fed's holdings	544	7.8

Note: This is a summary of issuance of bonds with maturities of two-years or more.

Source: FRBNY and US Treasury.