

**Goldman Sachs**

**Current Global Economic  
Challenges**

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Managing Director &  
Head of Global Economics, Commodities and  
Strategy Research**

**May 2009**

# GLI vs IP



# Momentum of the GLI



# Monthly Direction of GLI Components

## Up

Belgian Manufacturing Survey  
Business Confidence Aggregate  
Consumer Confidence Aggregate  
GS Australian Dollar Trade Weighted Index  
ISM New Orders Less Inventories  
Japan IP Inventory/Sales Ratio  
Korean Exports  
S&P GS Industrial Metals Index  
US Initial Jobless Claims

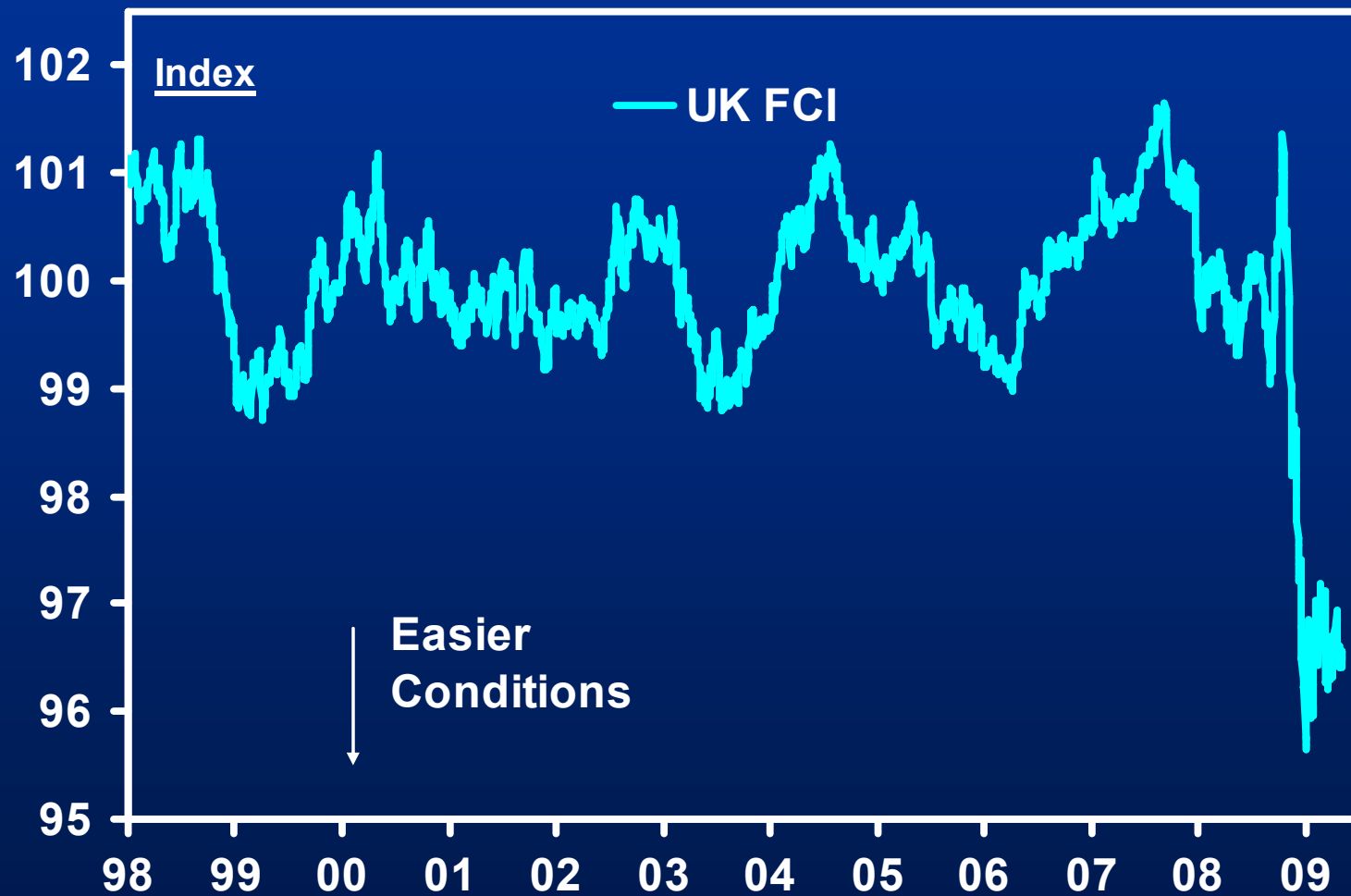
## Down

US Durable Goods Inventory/Shipments Ratio

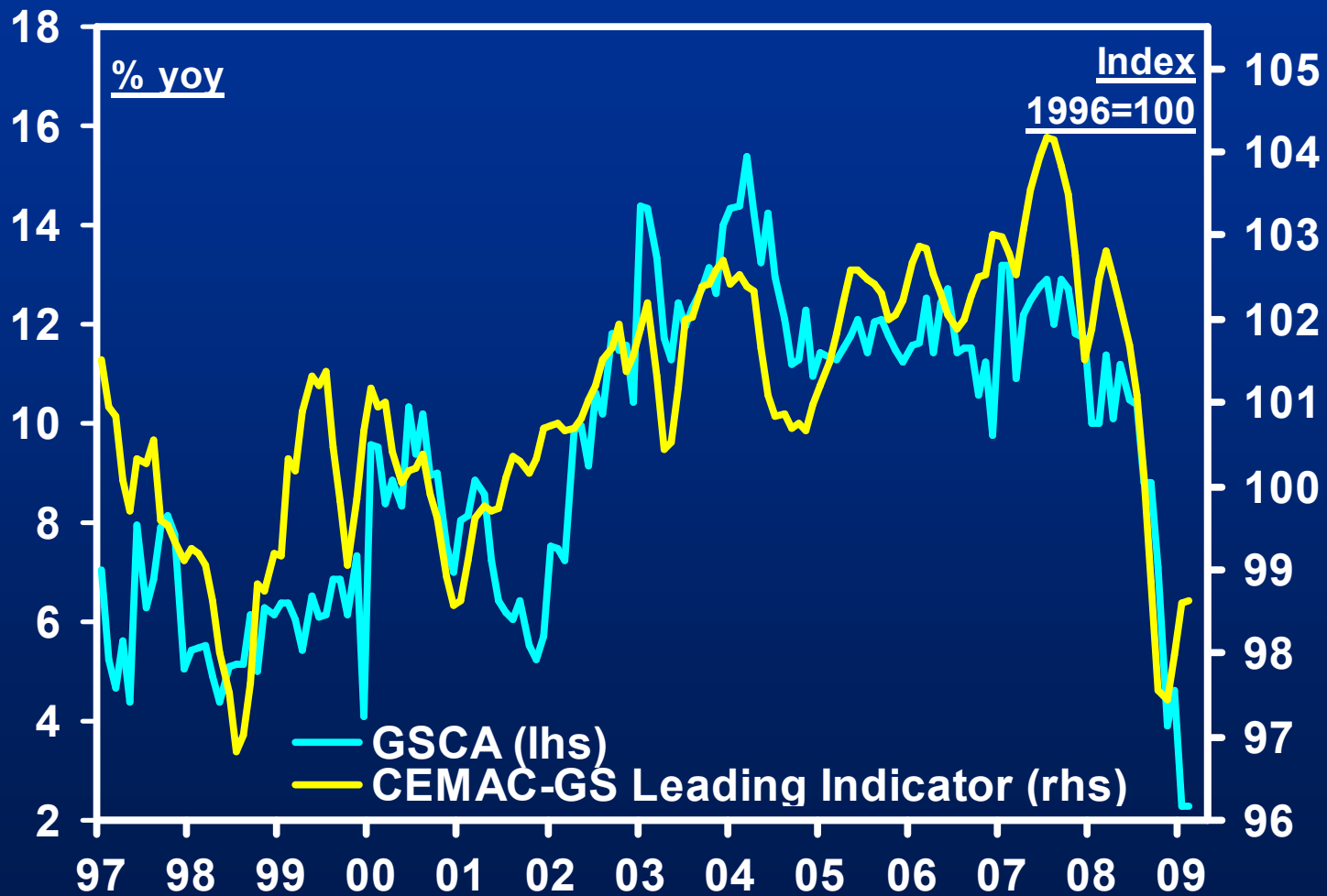
# US Financial Conditions Index



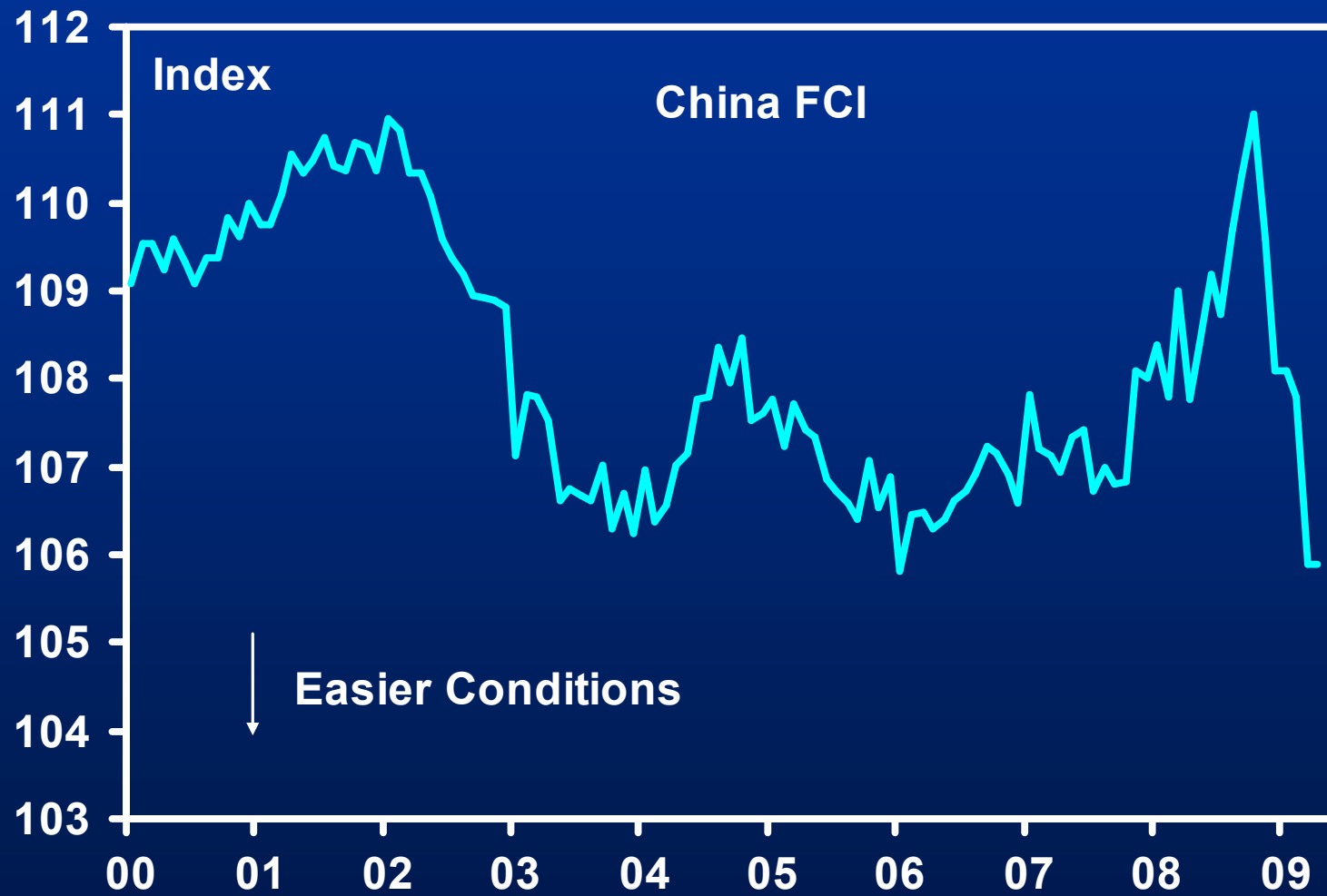
# UK Financial Conditions Index



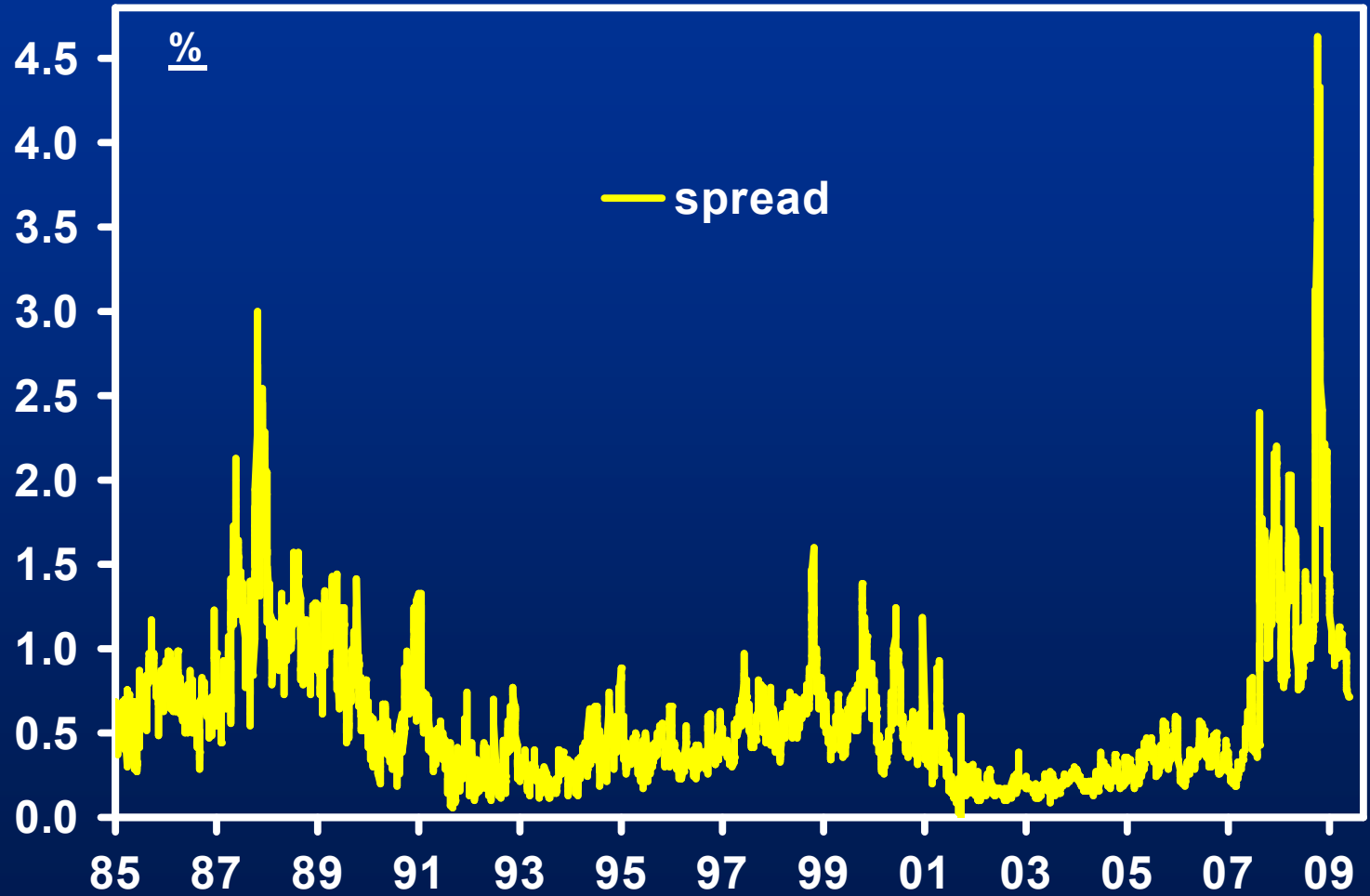
# China Lead Indicators



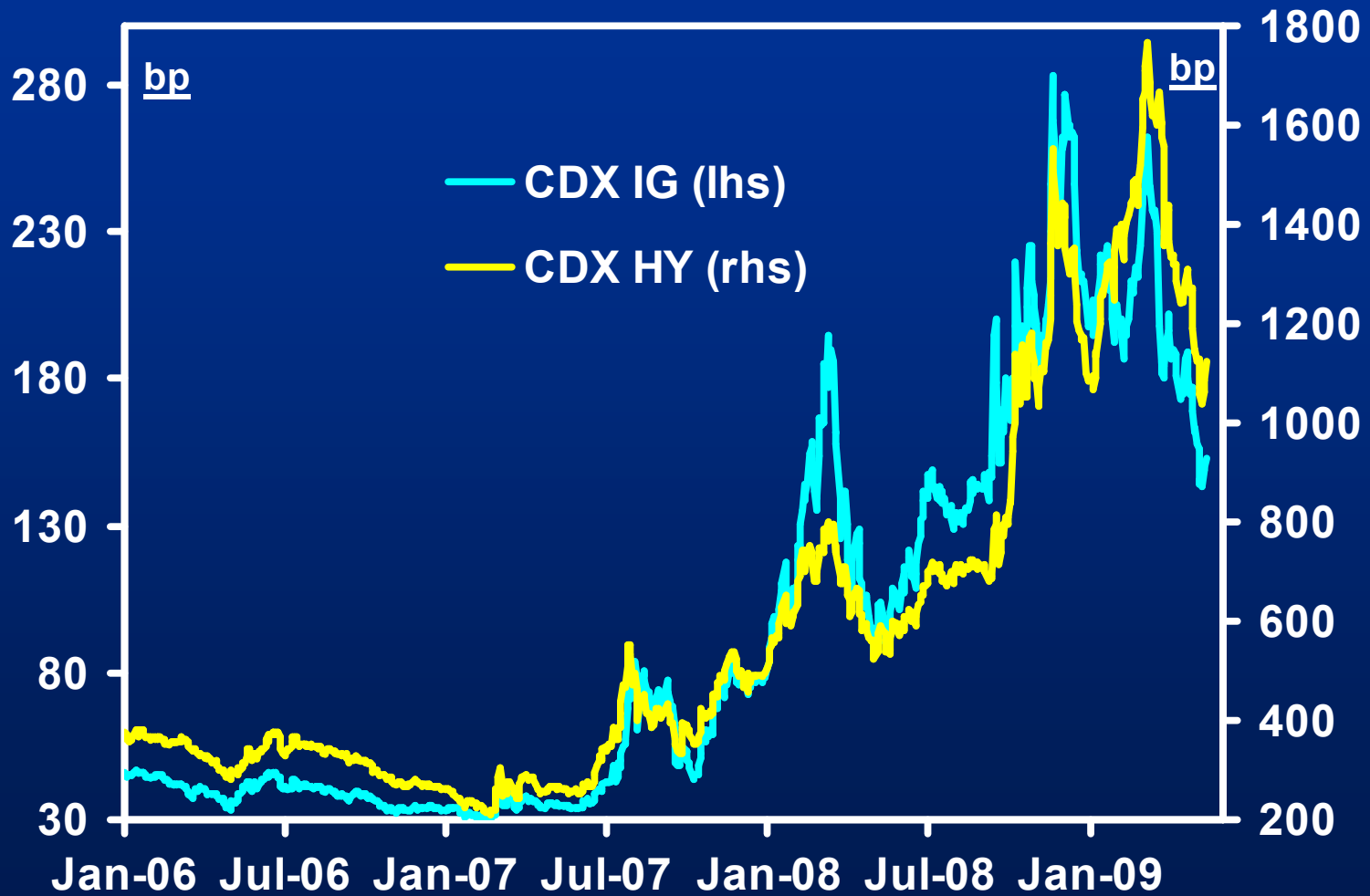
# China FCI



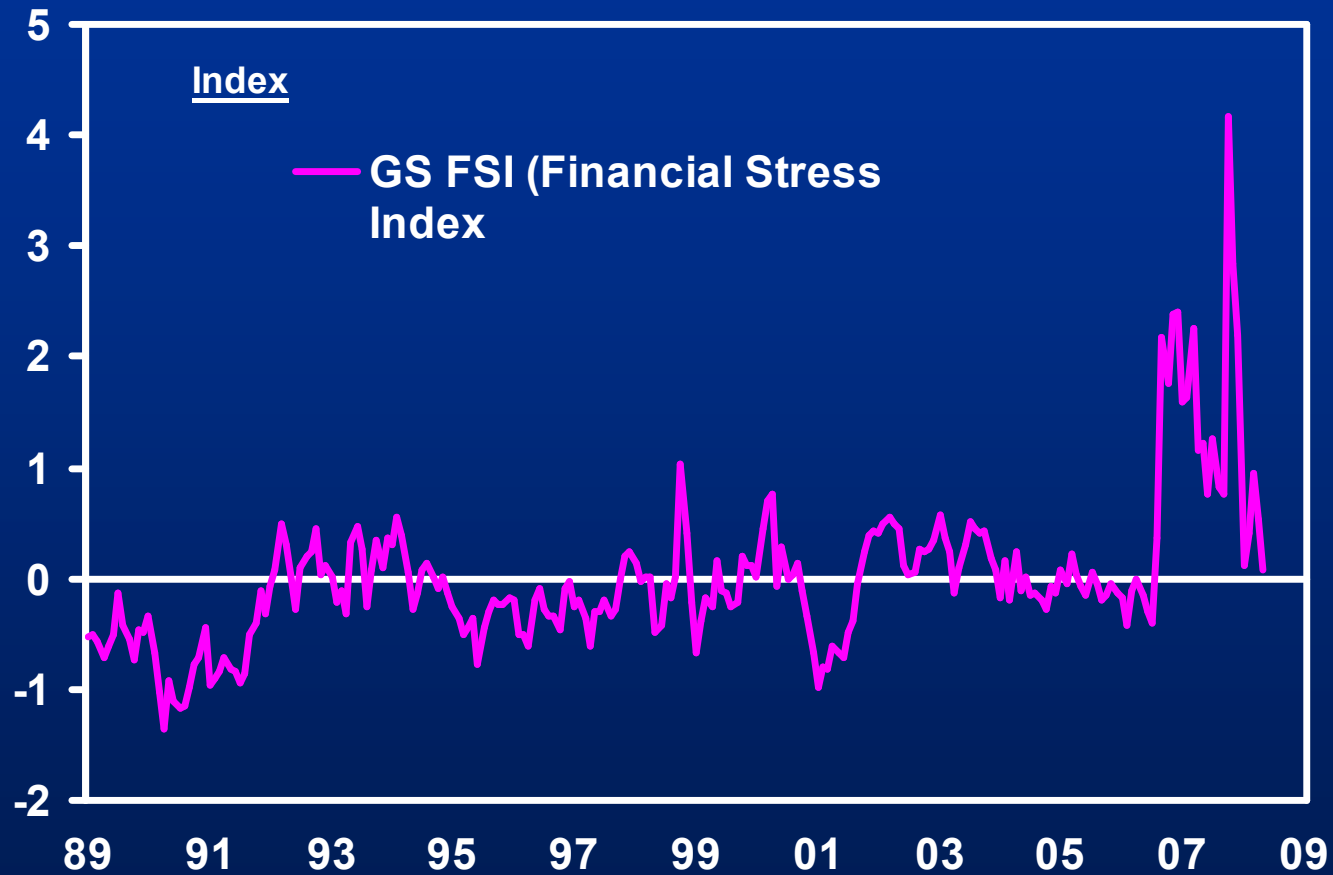
# Ted-Spread



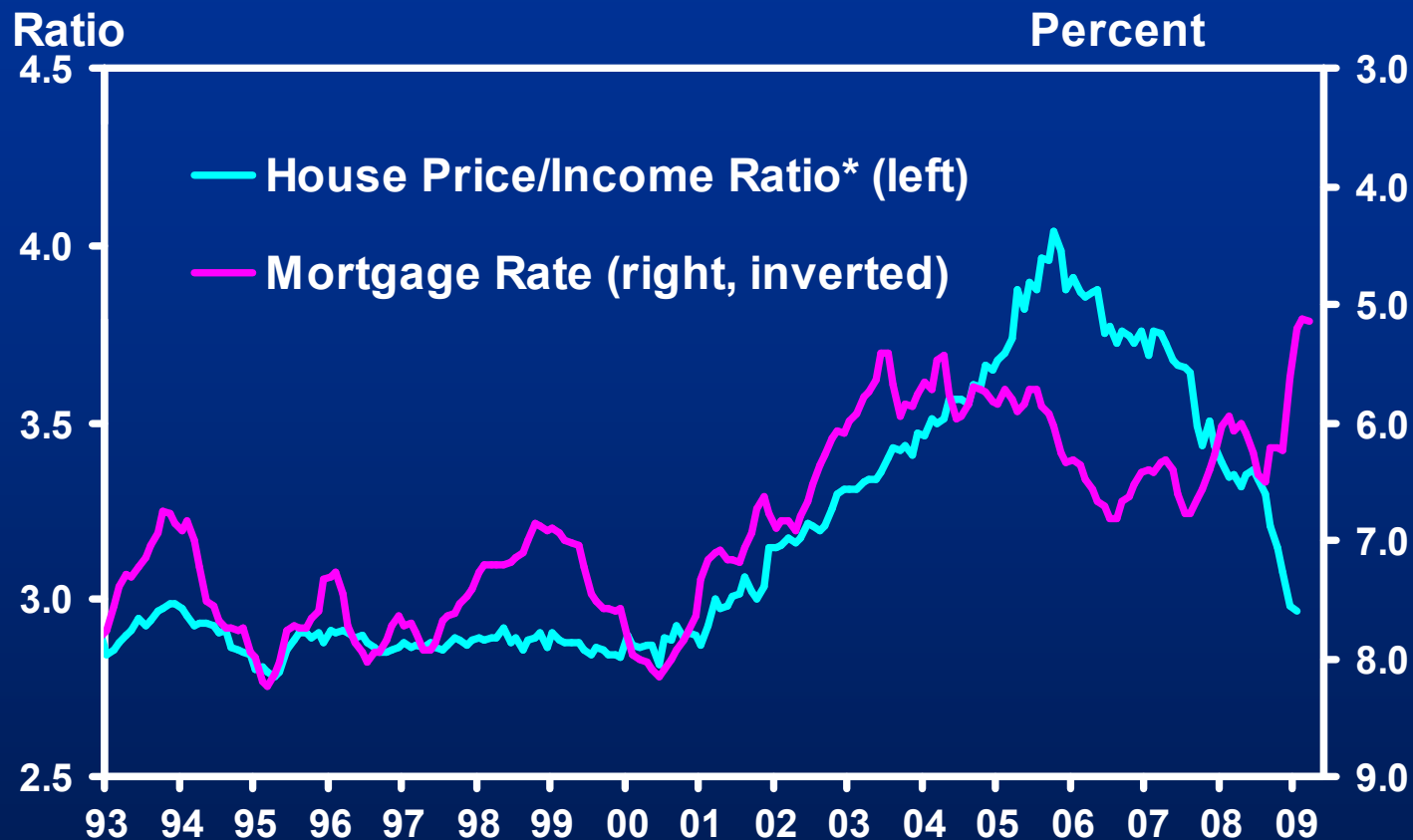
# Credit Spreads



# 'Crisis' Indicator



# US House Prices vs Income



\* S.a. median home price divided by median family income.

Source: Department of Commerce. FRB. NAR.

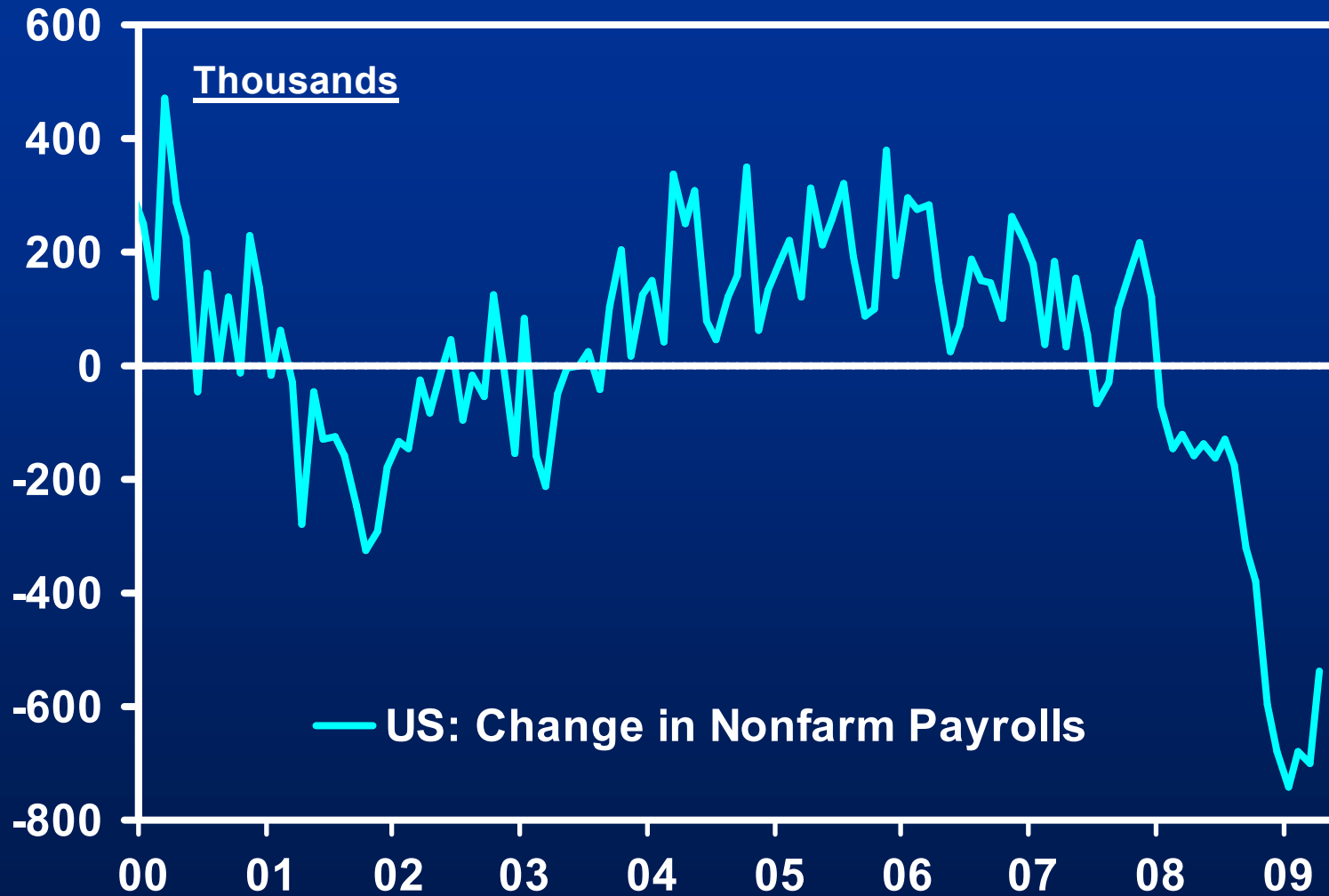
# Weakness in US Housing Continues



\* Using three-month moving averages of sales.

Source: Department of Commerce.

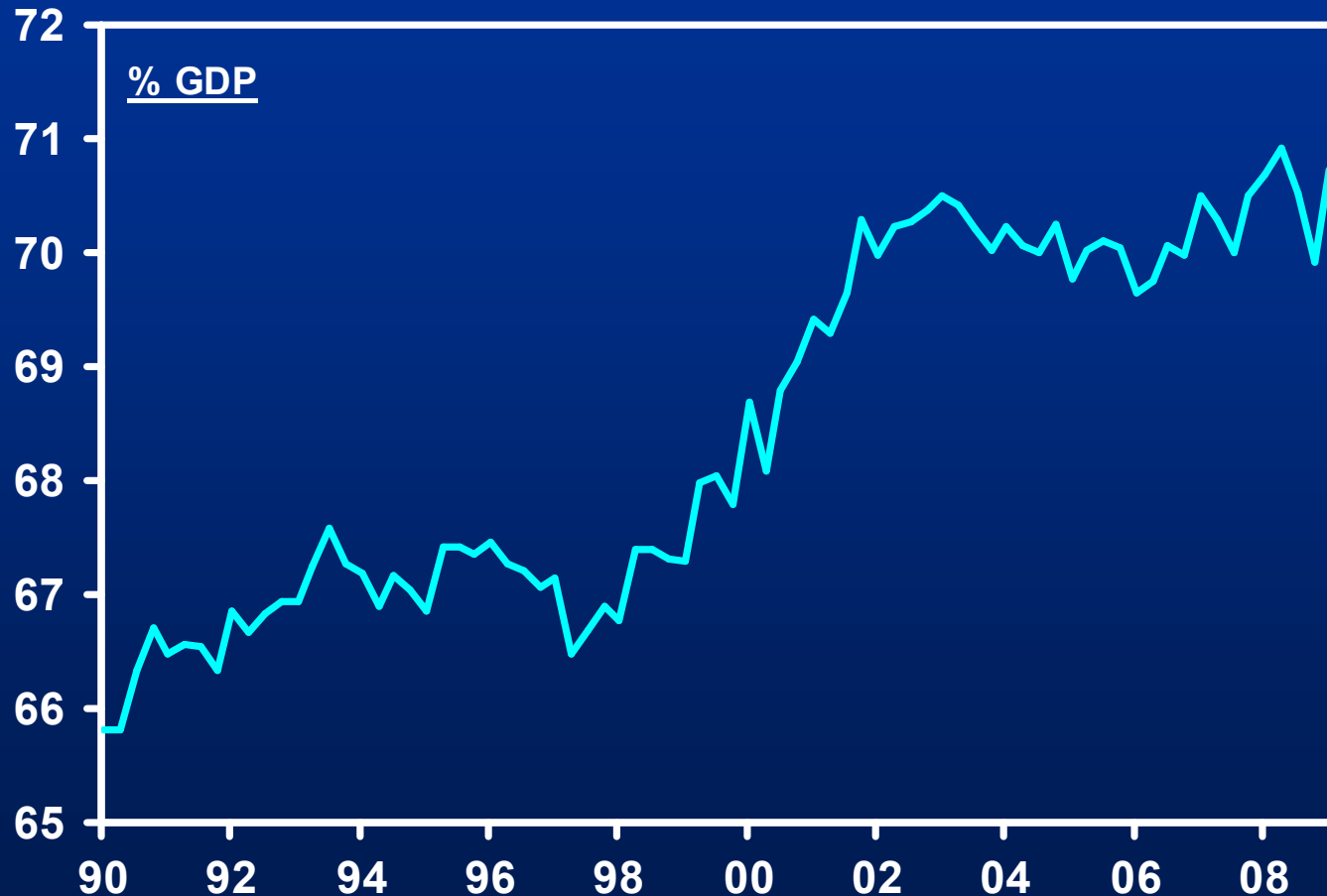
# US Employment



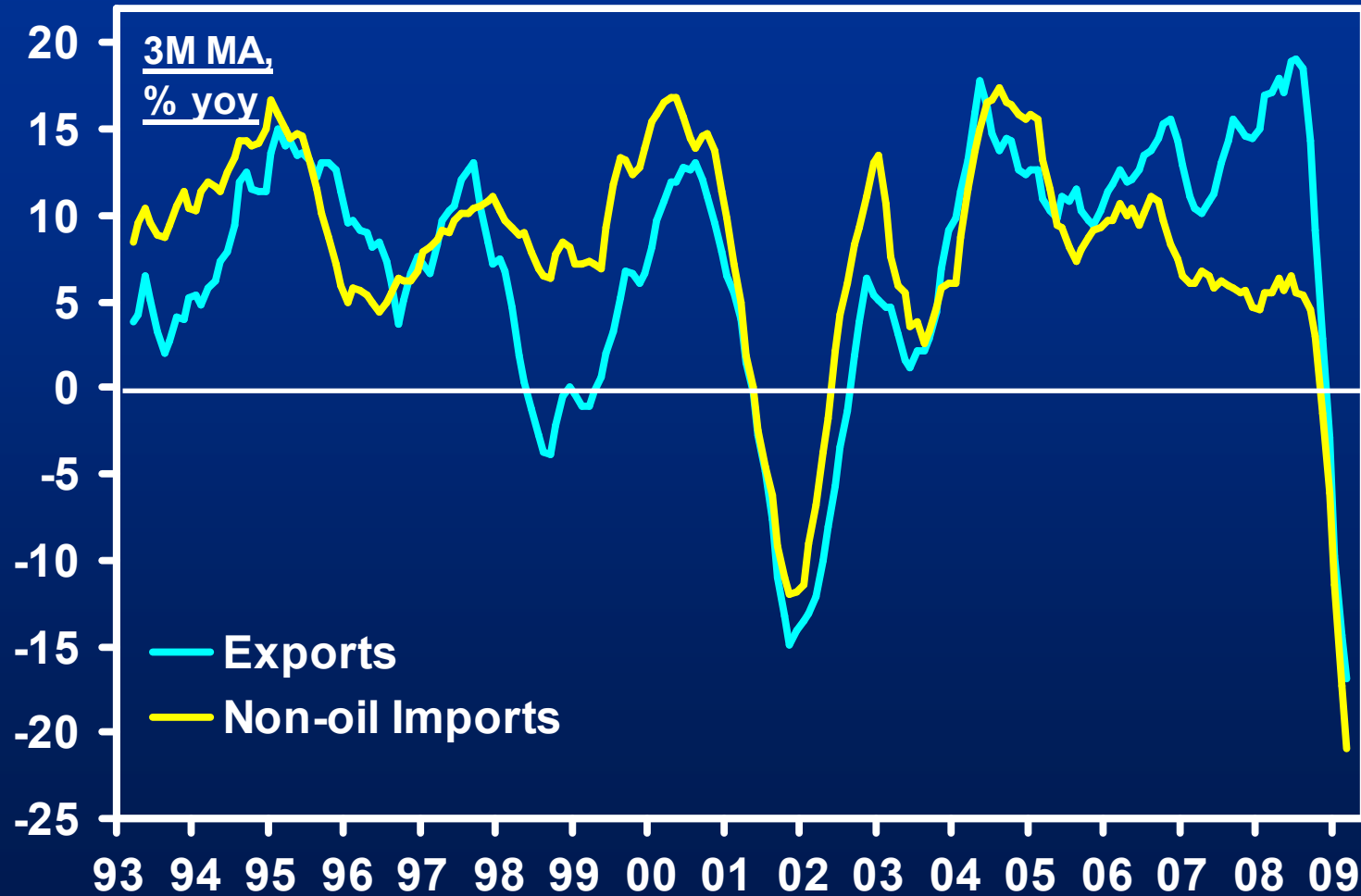
# US Retail Sales



# Share of Private Consumption in US GDP



# US Export and Import Growth



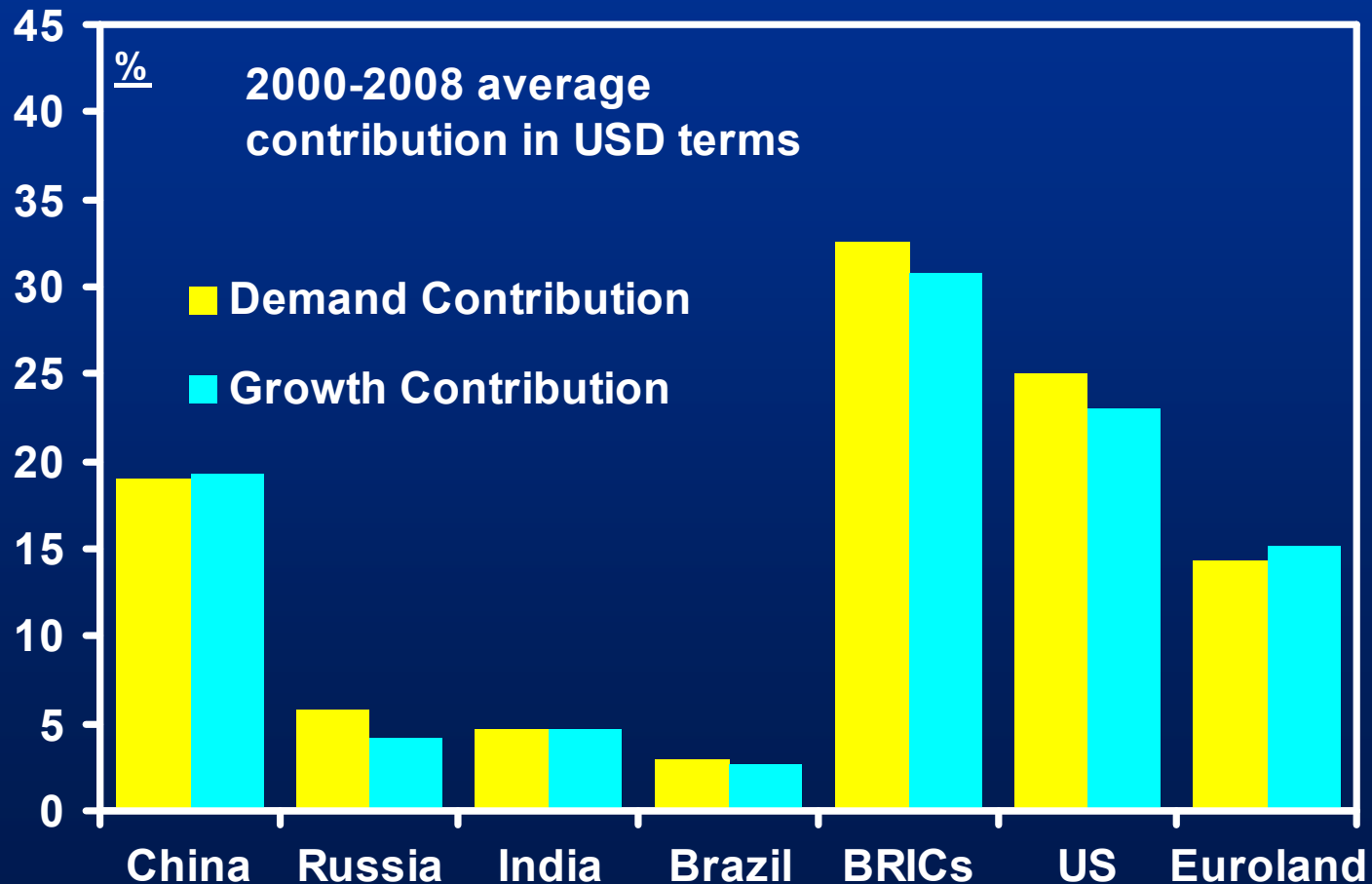
# US Productivity Growth

Peak in GDP*	Previous 4-Quarter Trend	Quarters Relative to Peak		Average (+1 and +2)
		+1	+2	
Q4 1948	1.1	3.6	4.4	4.0
Q2 1953	2.4	2.1	-1.5	0.3
Q3 1957	3.3	1.4	-6.0	-2.3
Q1 1960	3.5	-5.6	1.0	-2.3
Q3 1969	-0.1	-1.8	1.2	-0.3
Q4 1973	0.8	-0.6	-1.0	-0.8
Q1 1980	-0.1	-4.4	1.6	-1.4
Q3 1981	2.2	-5.0	-2.6	-3.8
Q3 1990	2.2	-2.9	1.0	-1.0
Q2 2001	2.0	1.8	6.0	3.9
Q2 2008	3.2	1.5	3.2	2.4

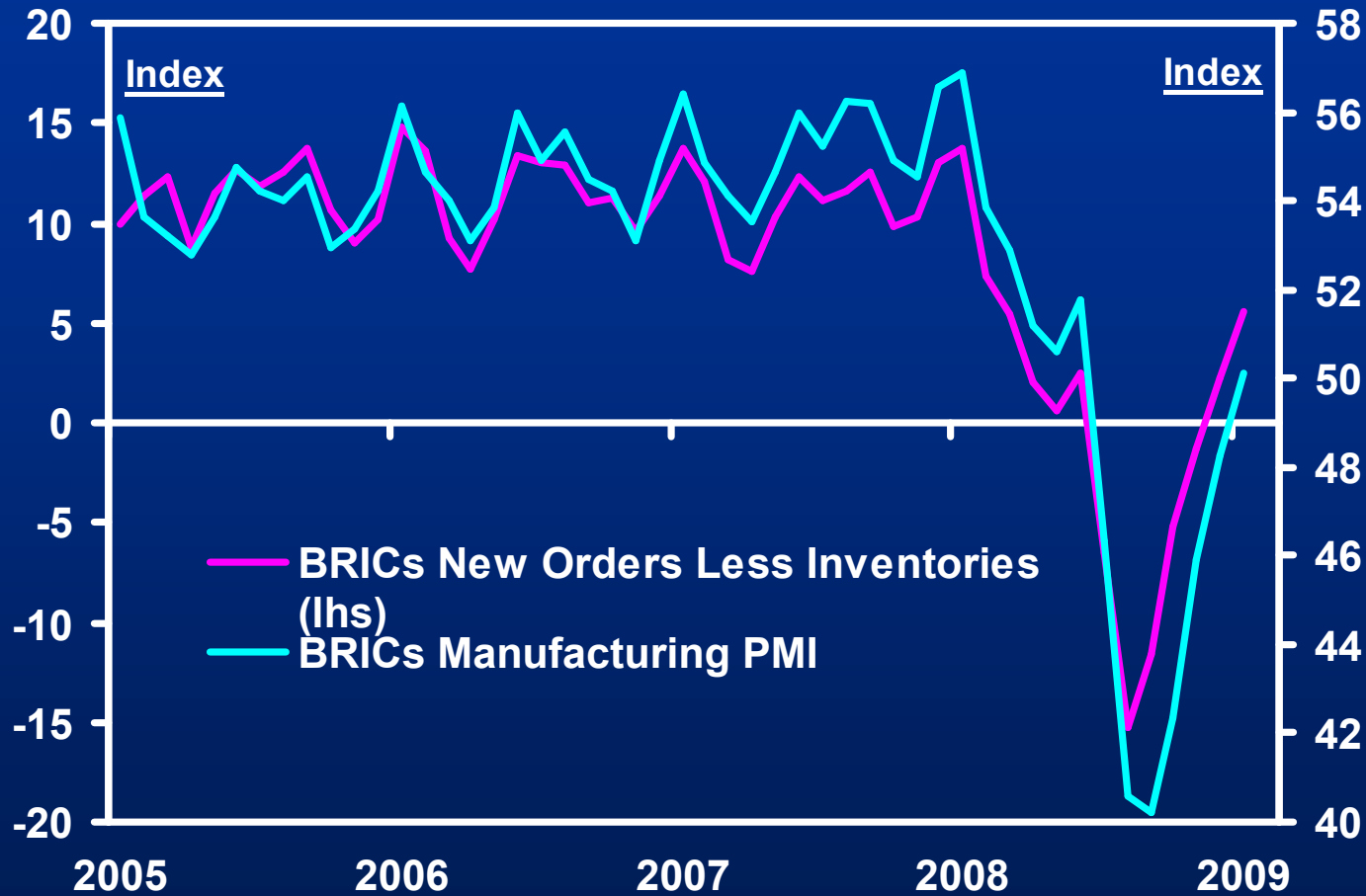
\*The peak in GDP does not always occur in the same quarter as the official start of the recession, though this is usually the case.

Source: Department of Labor, GS Global ECS Research

# Domestic Demand and Growth Contributions, Last 9 Years

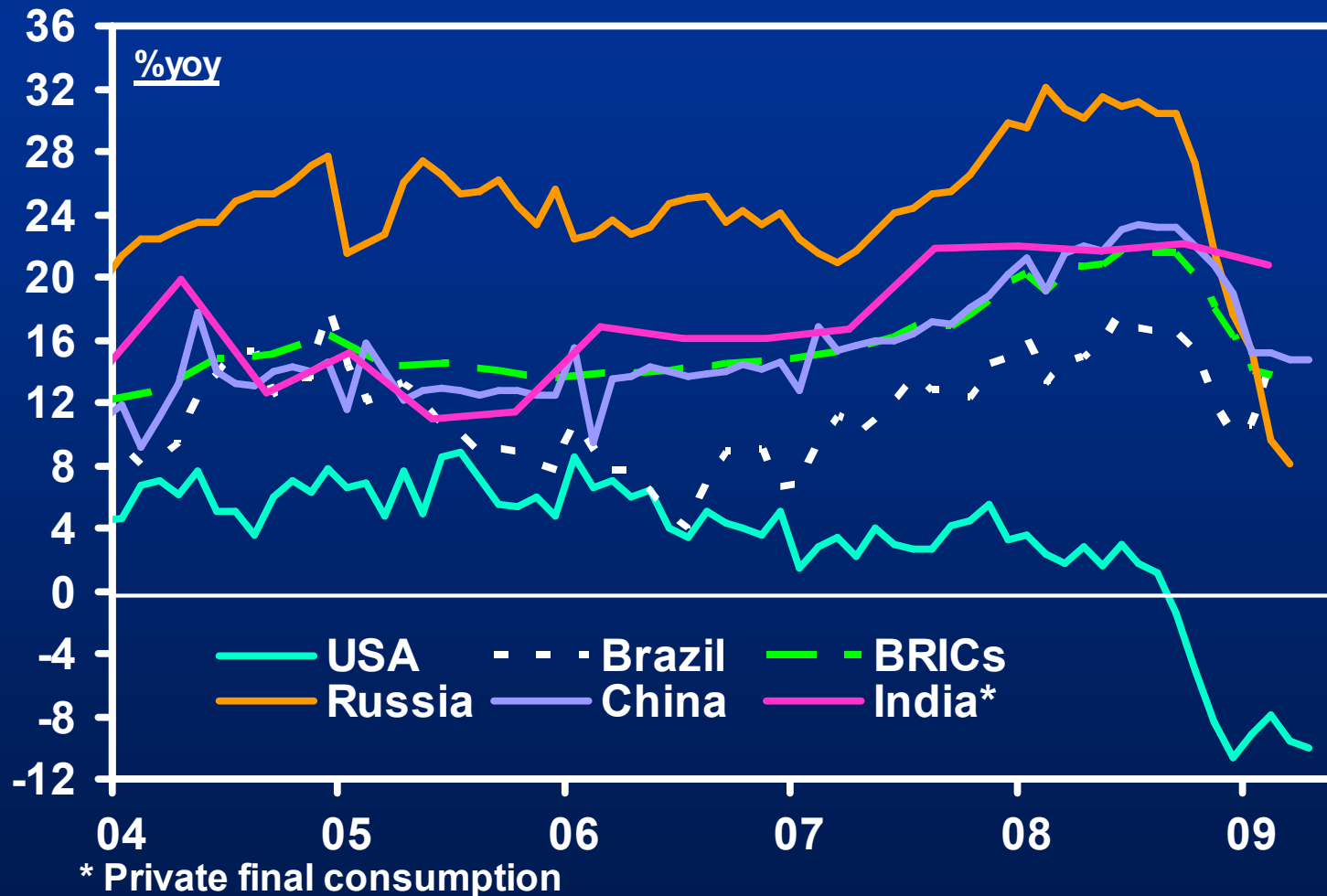


# BRICs Manufacturing Activity\*

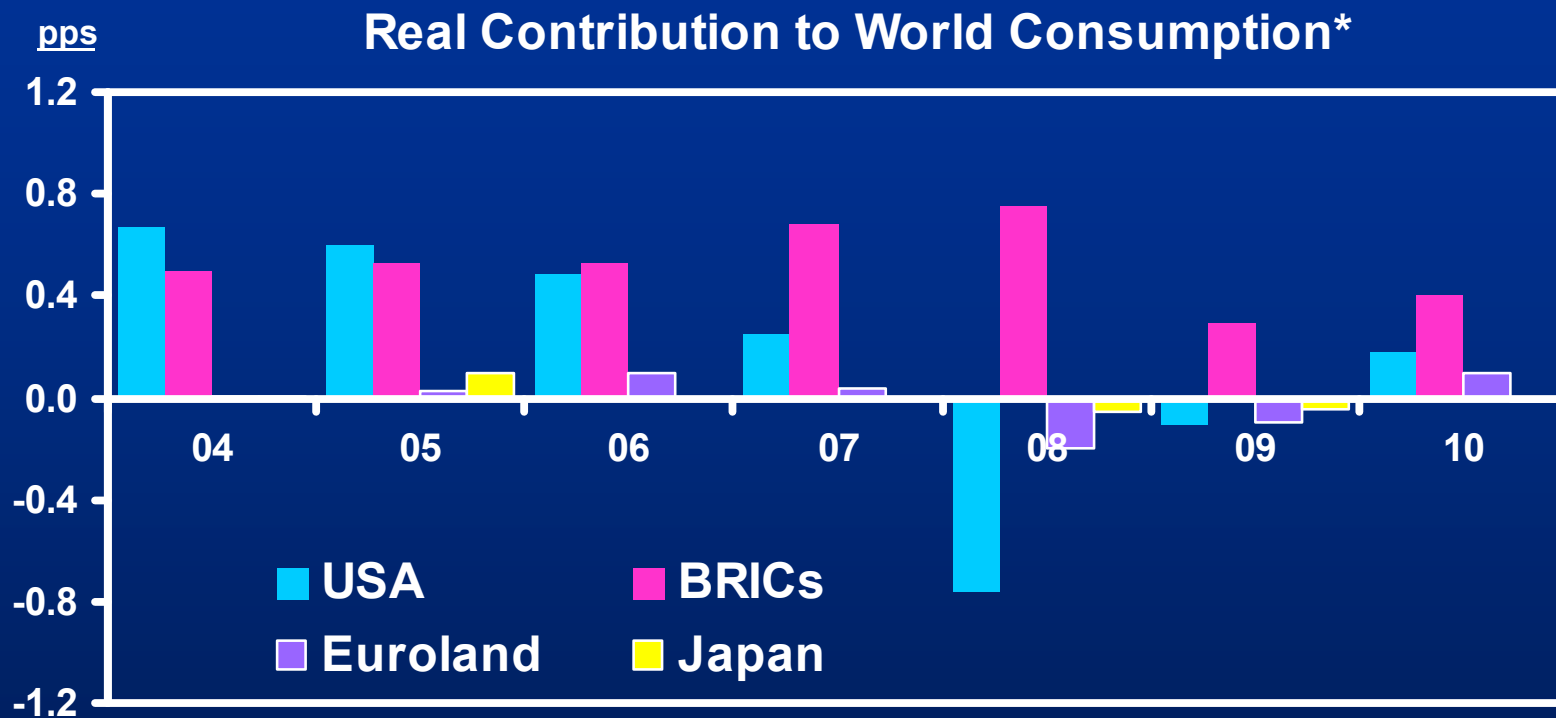


Source: Institute of Supply Management, NTC, GS Calculations.  
\*GDP weights

# Retail Sales US and BRICs

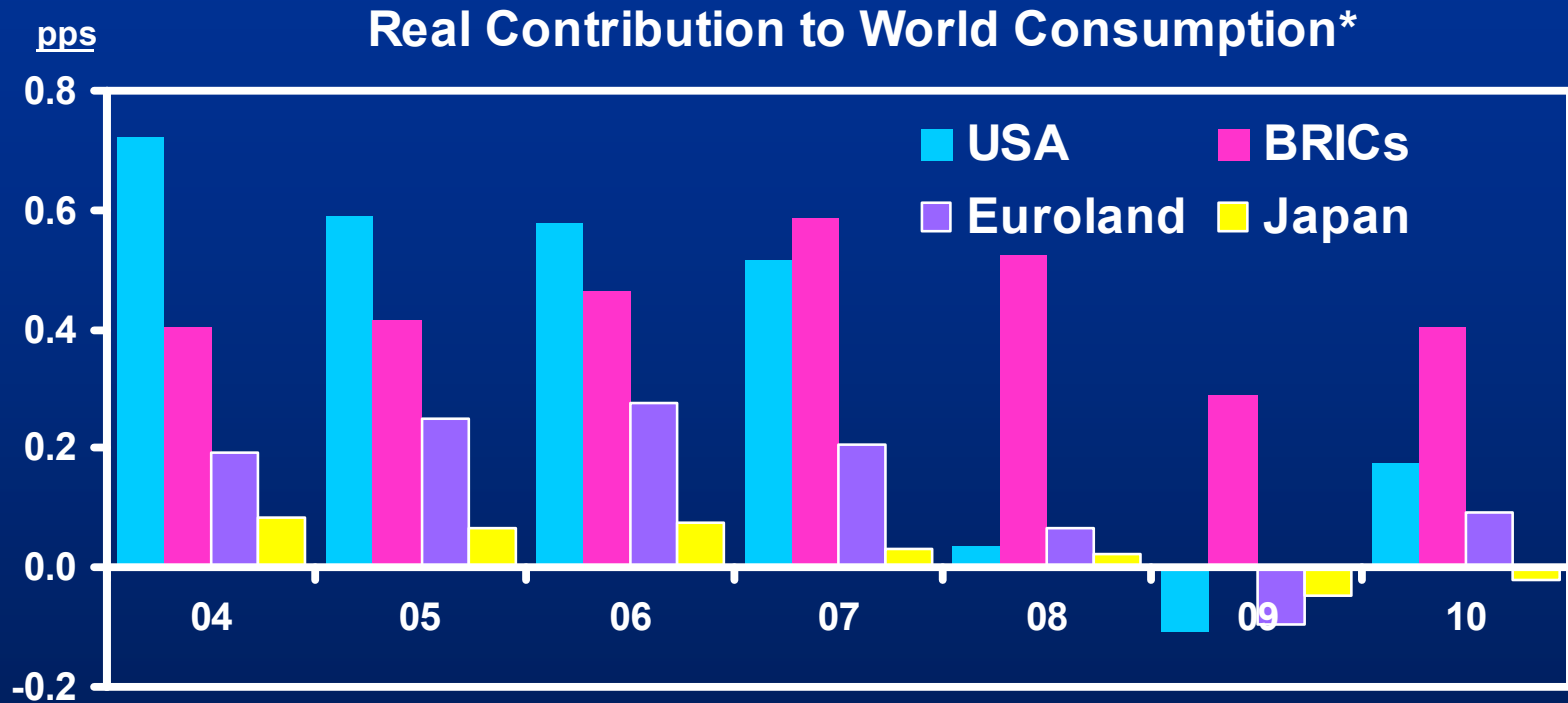


# Retail Sales Contribution



\*Calculated from real retail sales for Brazil, Russia, China, US, Euroland, and Japan. India uses real private consumption. Annual averages 2004-2008. 2009-2010 use GS forecasts for consumer expenditure or private consumption.

# Consumption Contribution

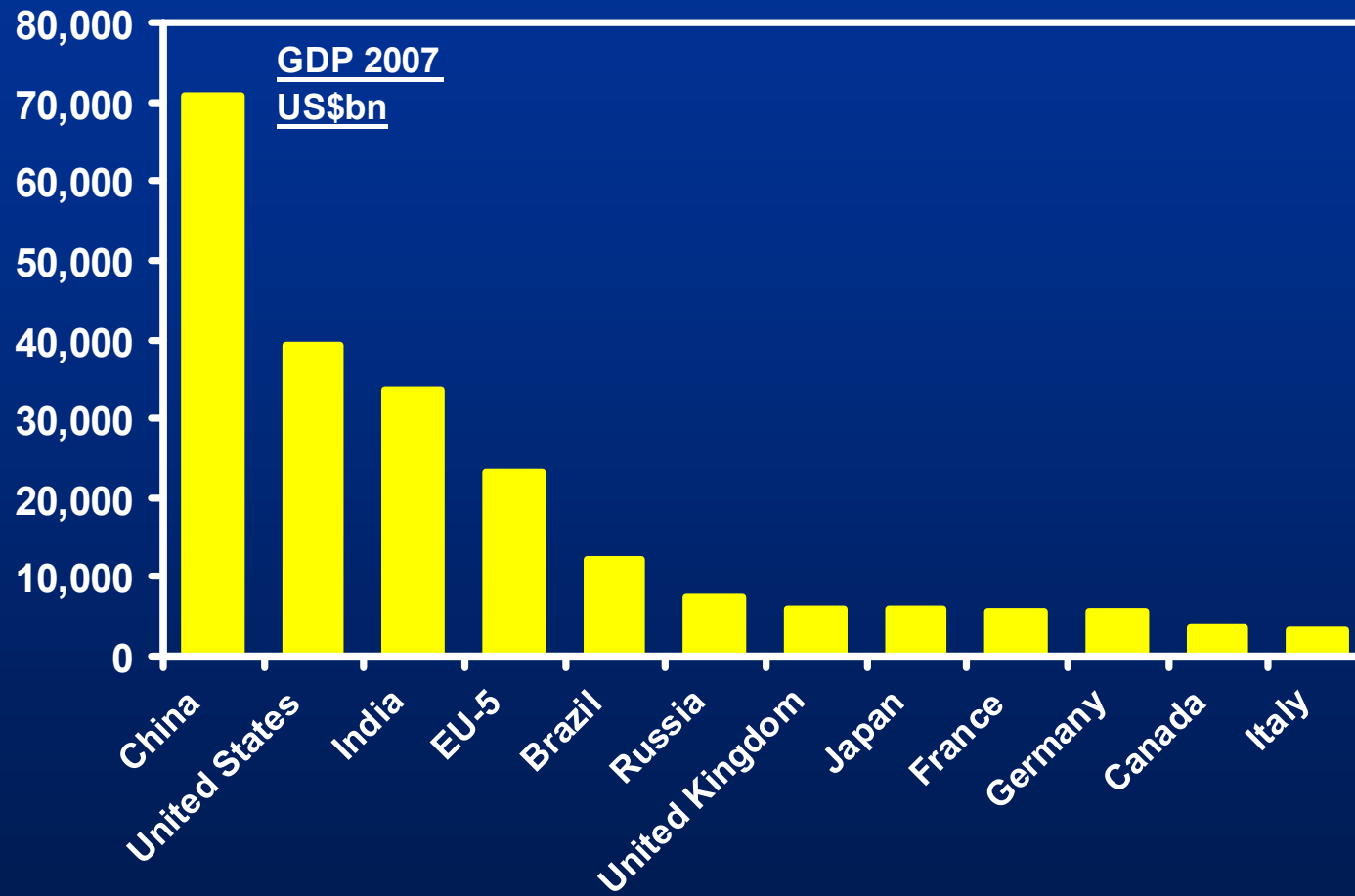


\*Calculated from consumer expenditure for India, US, Japan, and Euroland. Brazil and Russia use private consumption and China uses household consumption. Annual averages 2004-2008, GS forecasts 2009-2010.

# Recent Trend in Real Retail Sales

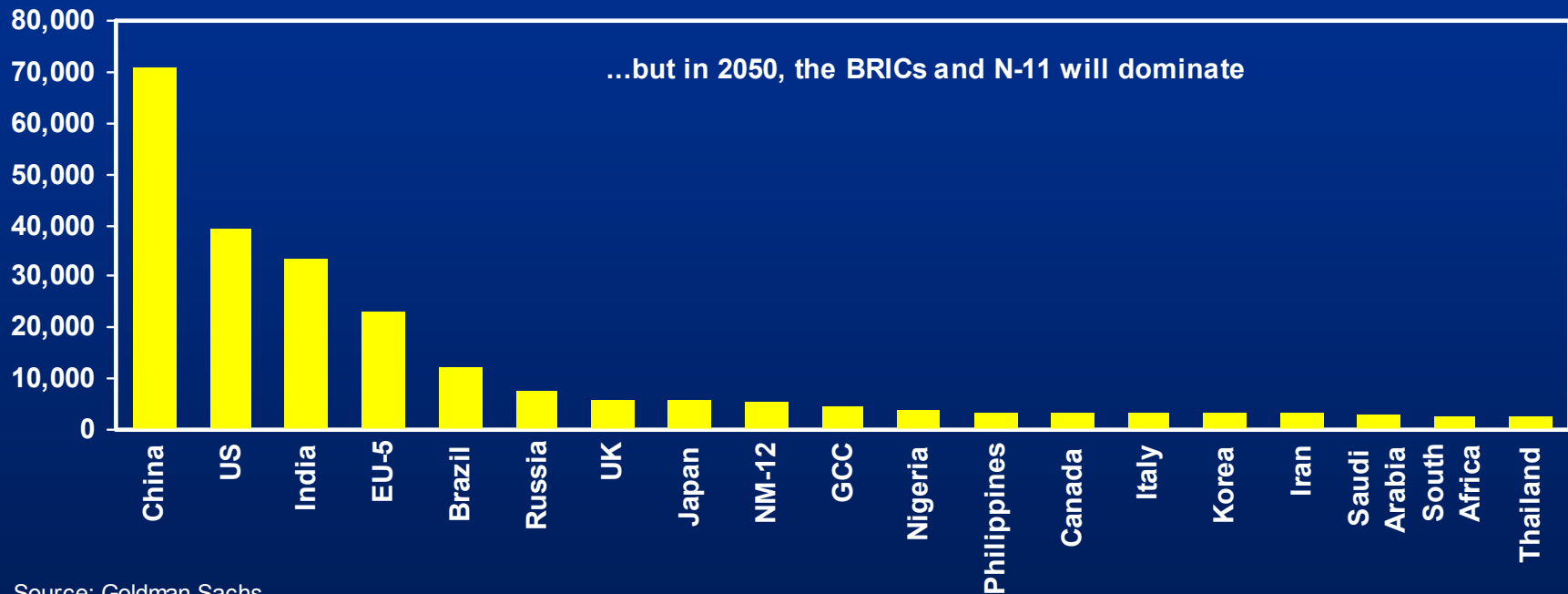


# The Largest Economies in 2050



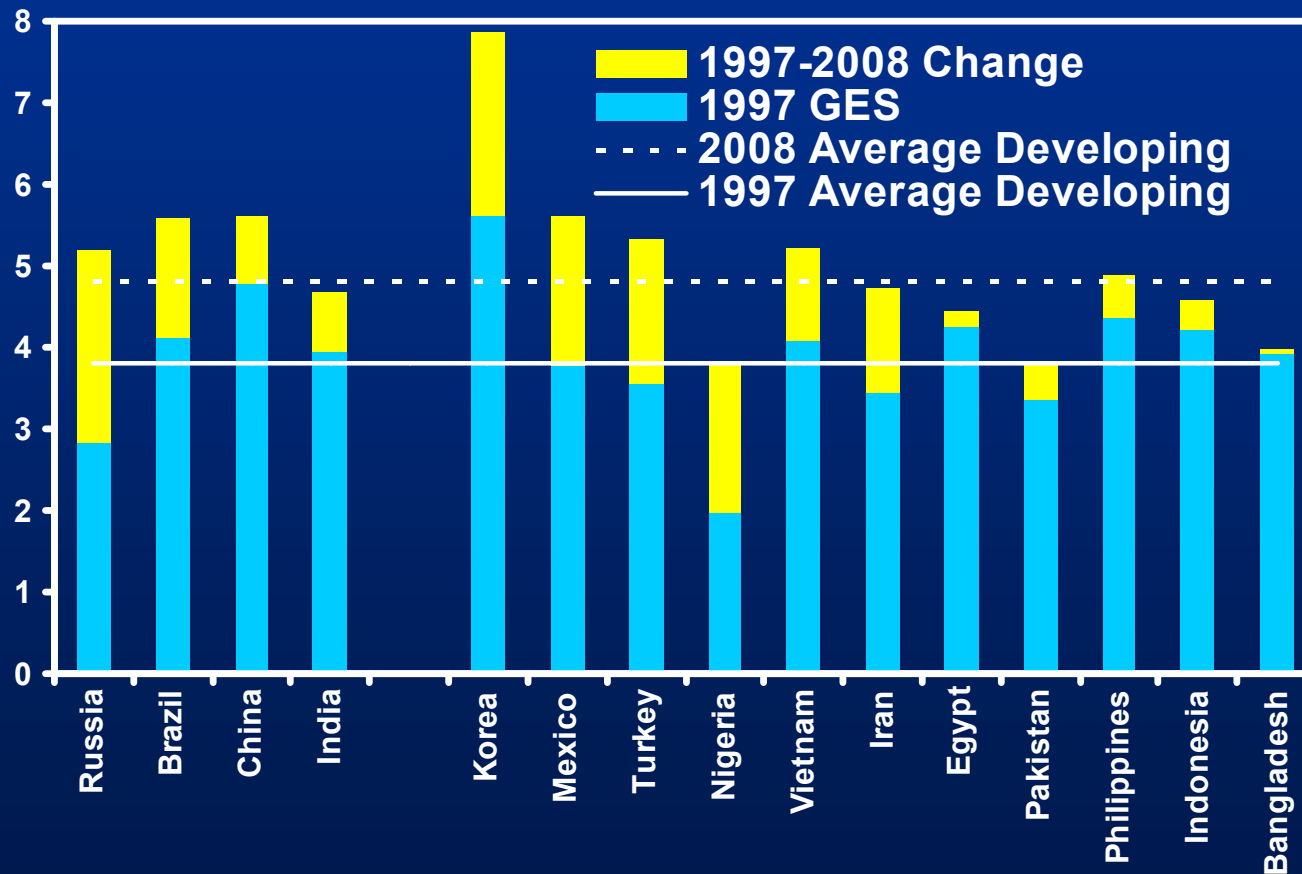
# The Largest Economies in 2050

GDP 2007 US\$bn

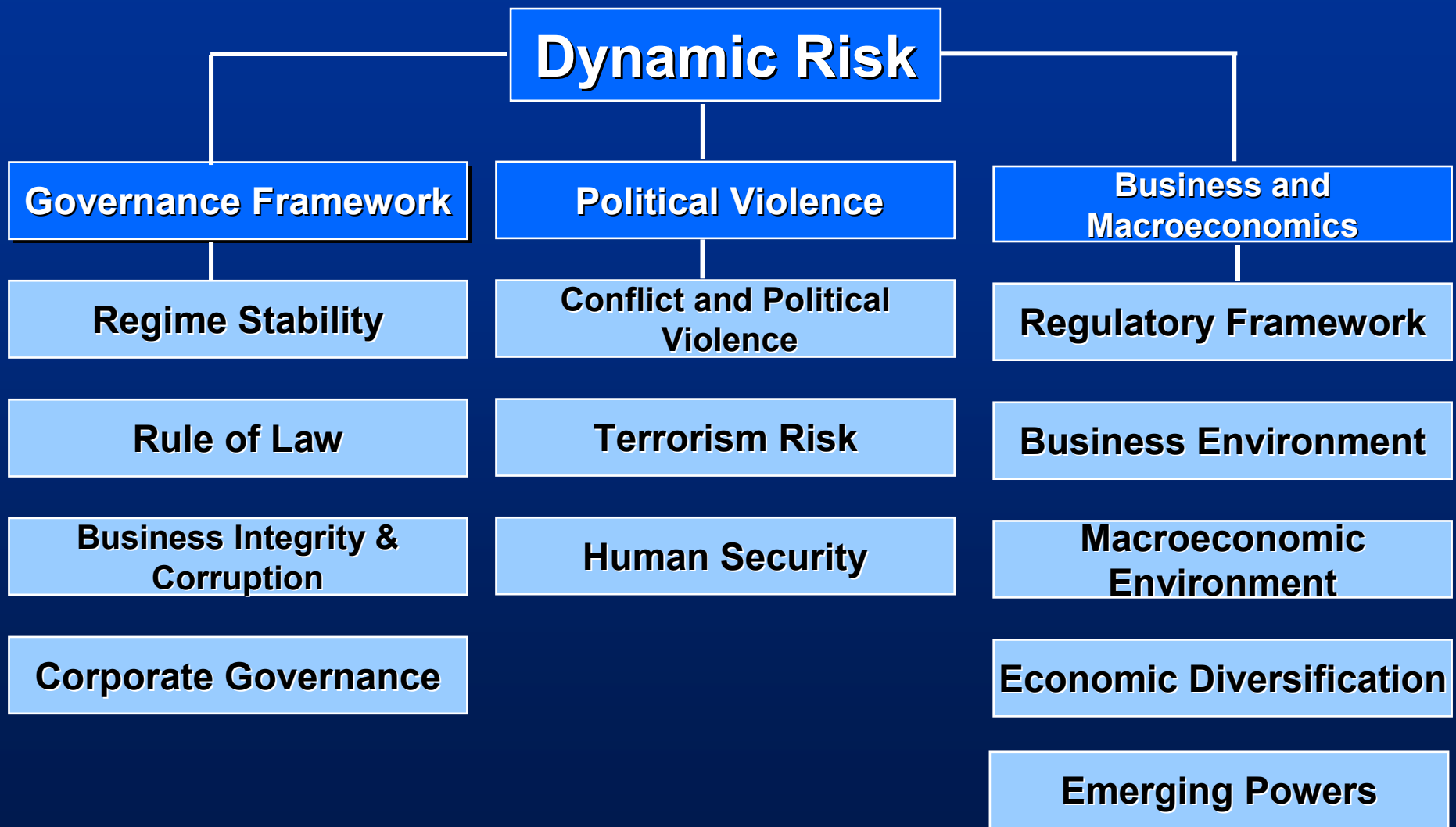


Source: Goldman Sachs

# BRICs & N11. 2008 Growth Environment Score (GES)



# Maplecroft Dynamic Risk Index

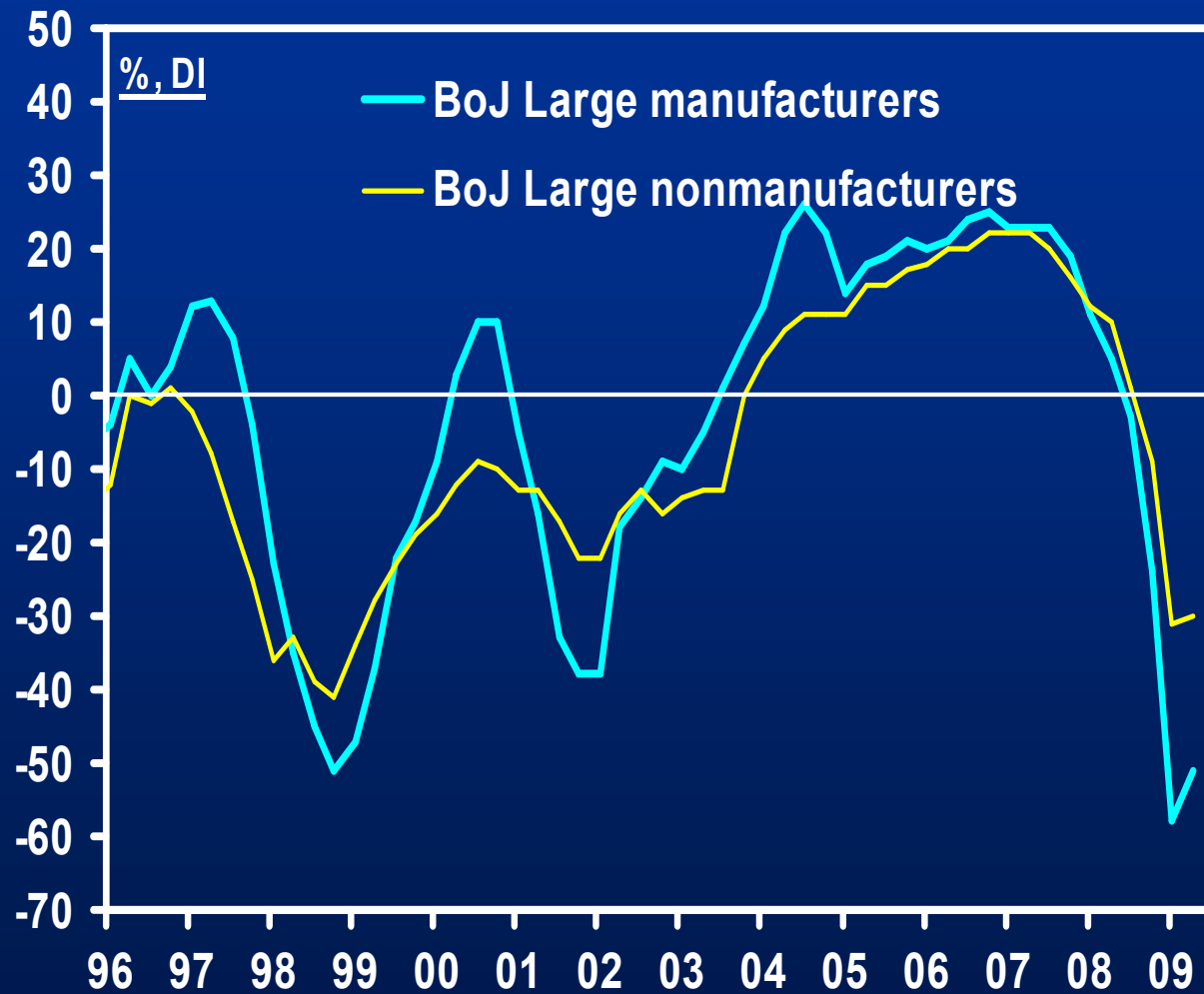


# Maplecroft Risk Indices

	Dynamic	Structural
<b>BRICs</b>		
Brazil	6.2	6.0
Russia	2.5	5.8
India	3.9	3.1
China	5.4	3.5
<b>N11</b>		
Bangladesh	3.1	1.7
Egypt	4.9	4.3
Indonesia	4.1	3.6
Iran	1.9	4.0
Mexico	6.5	6.1
Nigeria	2.4	2.1
Pakistan	2.2	1.3
Philippines	3.8	4.3
South Korea	8.3	8.9
Turkey	6.0	5.9
Vietnam	5.5	3.9
<b>USA</b>	8.9	8.9
<b>Germany</b>	9.2	9.2
<b>Luxembourg</b>	9.7	9.5

Source: Maplecroft

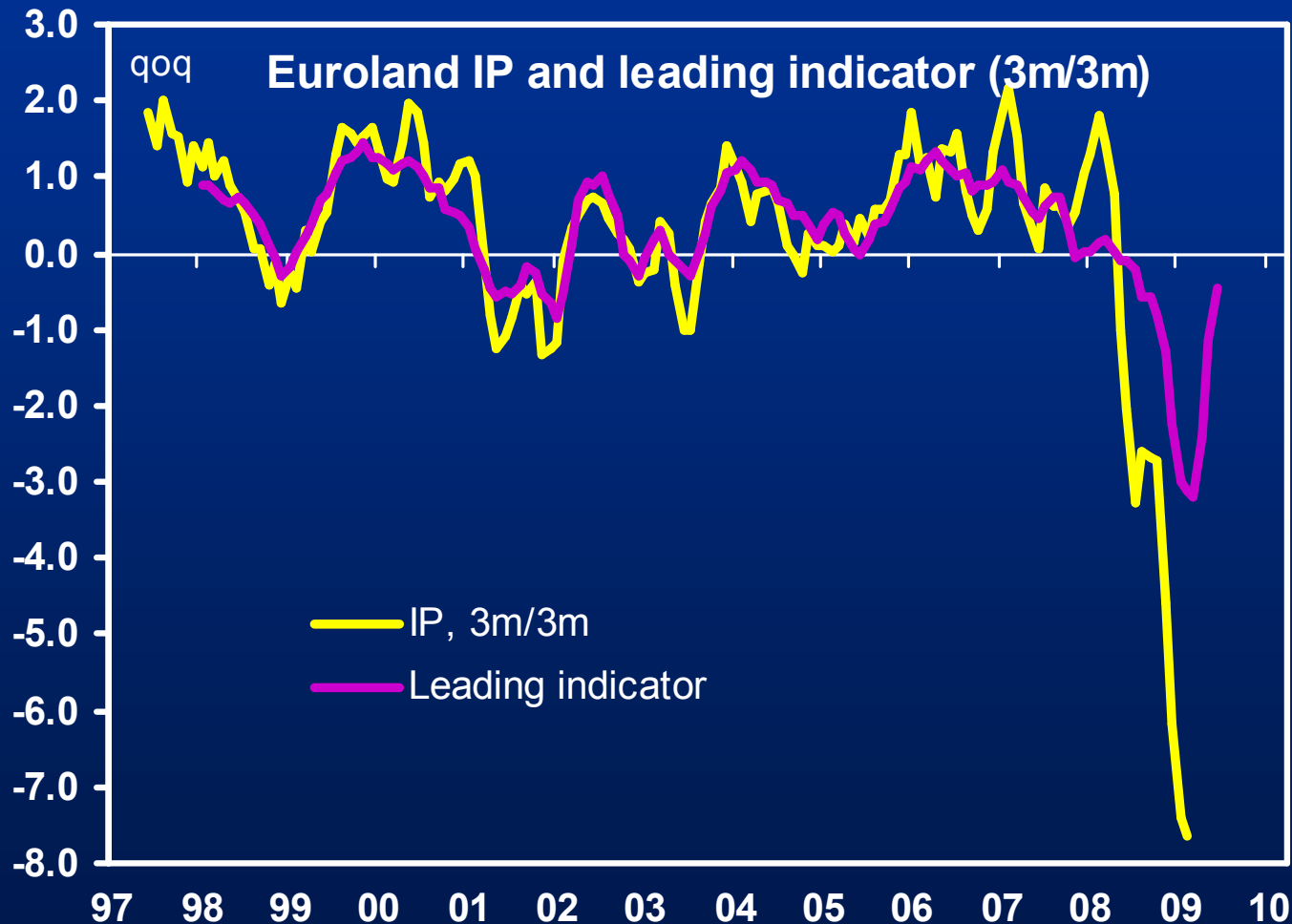
# BoJ Tankan



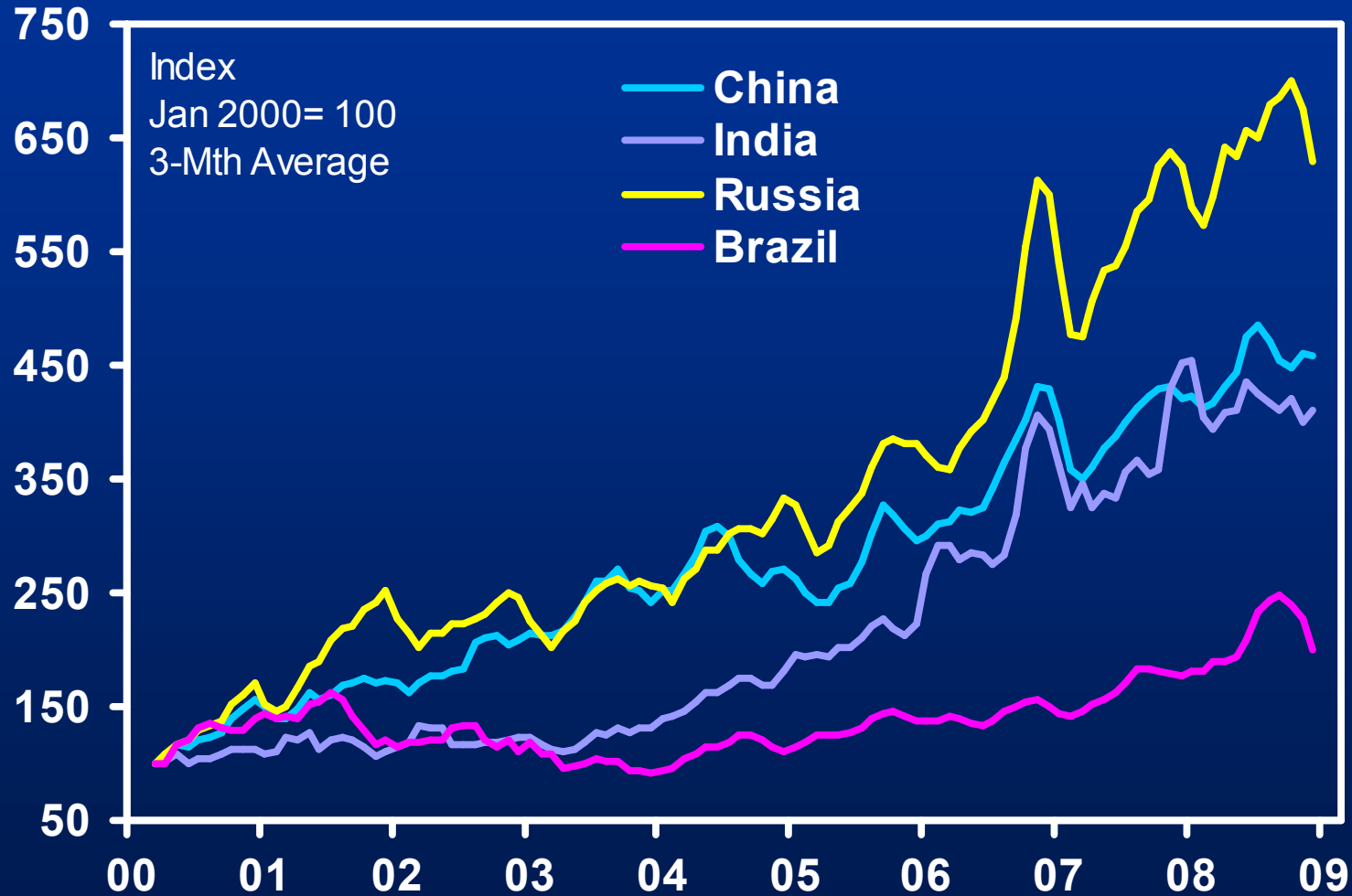
# Japanese Exports to the US and China



# Euroland Leading Indicator vs Industrial Production

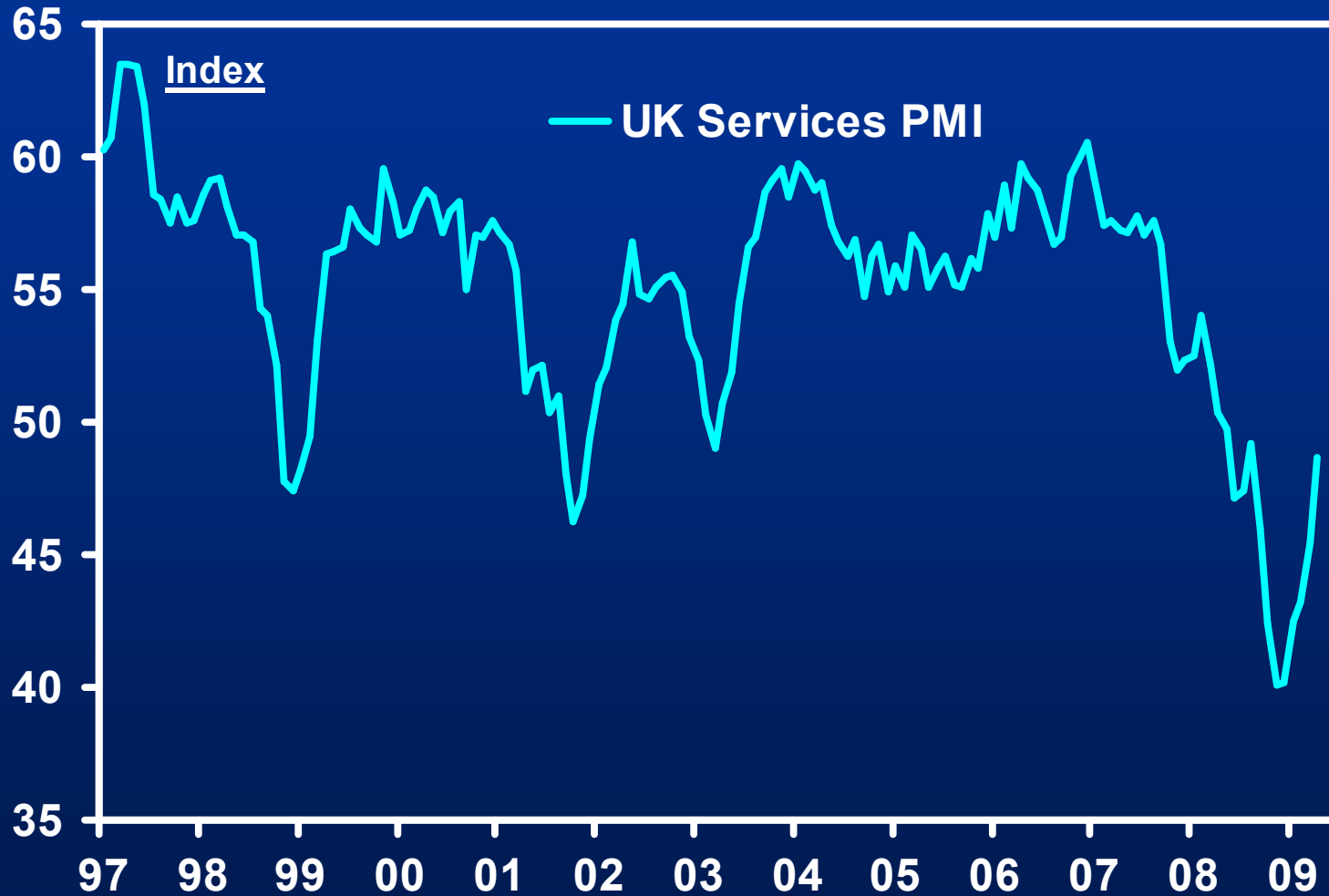


# German Exports to the BRICs



Source: Bundesbank, GS calculations

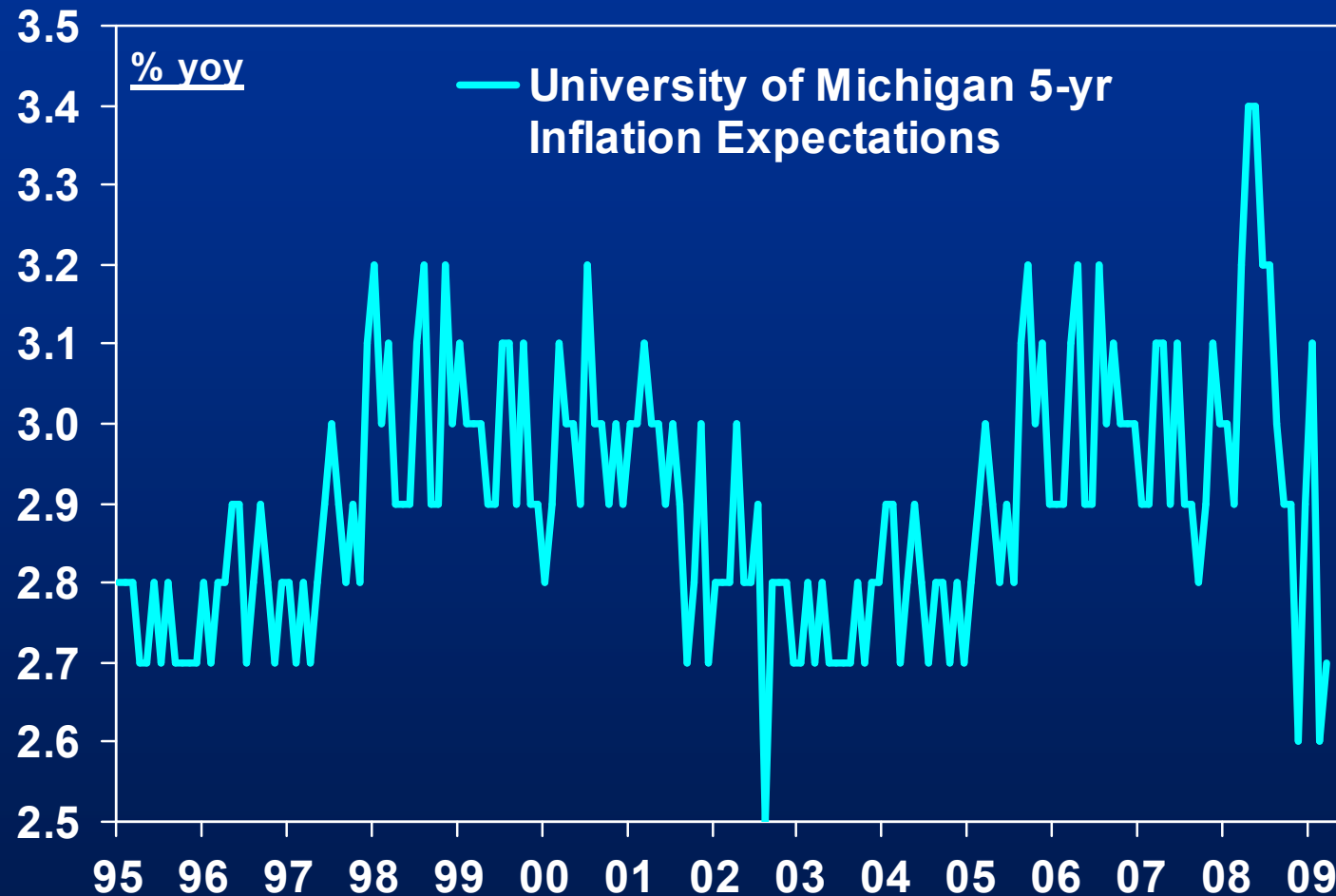
# UK Services PMI



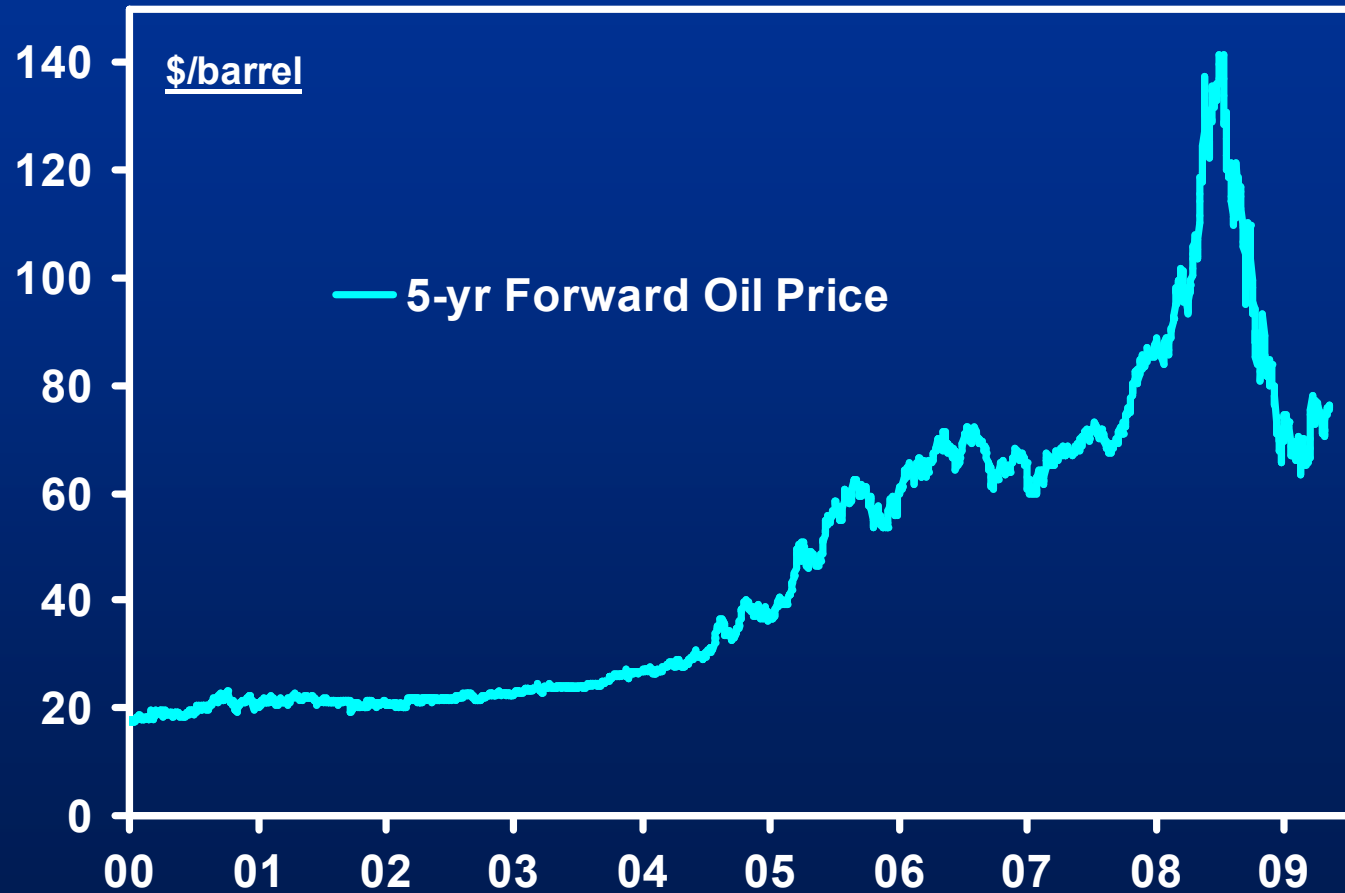
# Core CPI in US and Euroland



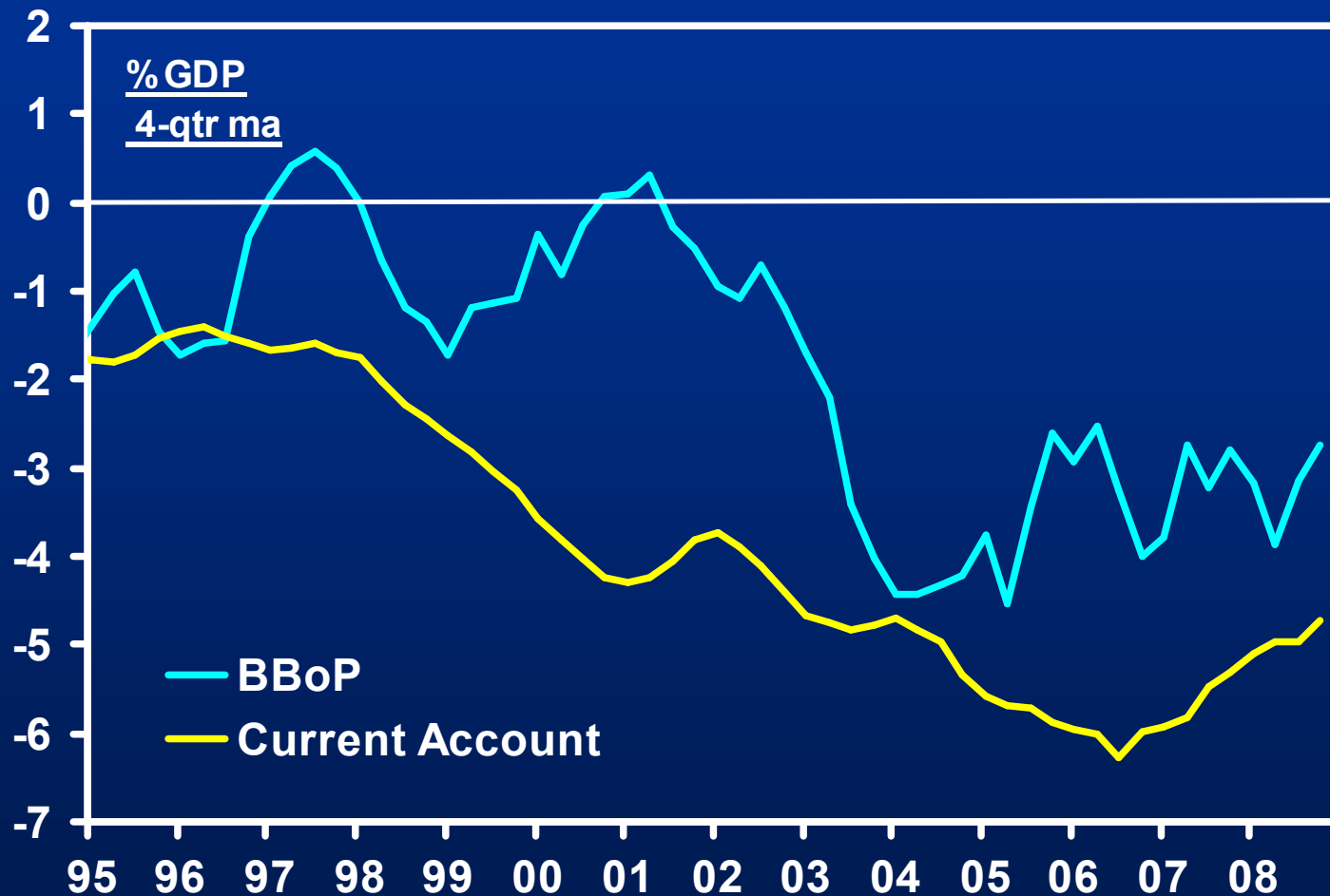
# Inflation Expectations in US



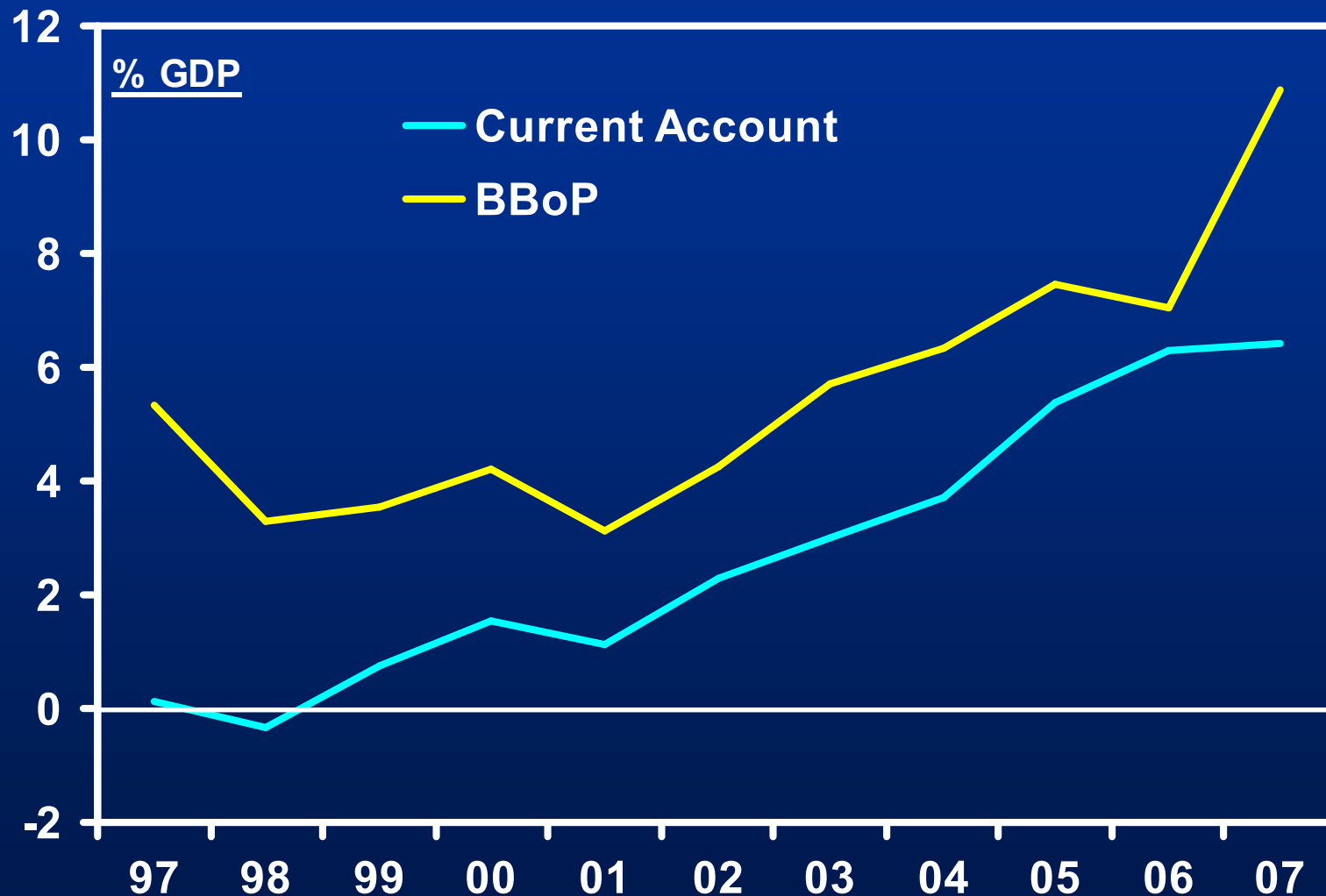
# Five Year Forward Oil Price



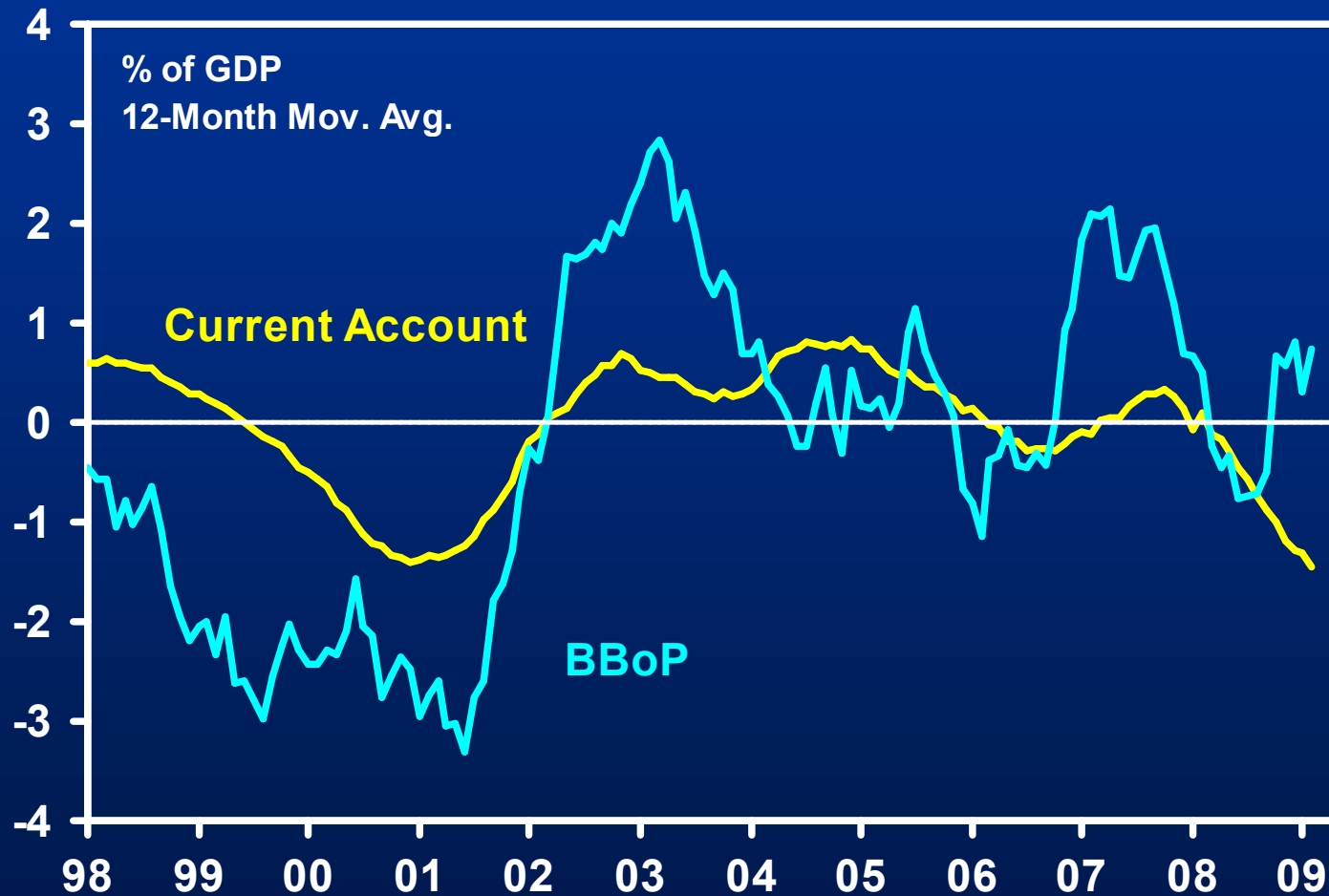
# US BBoP vs Current Account



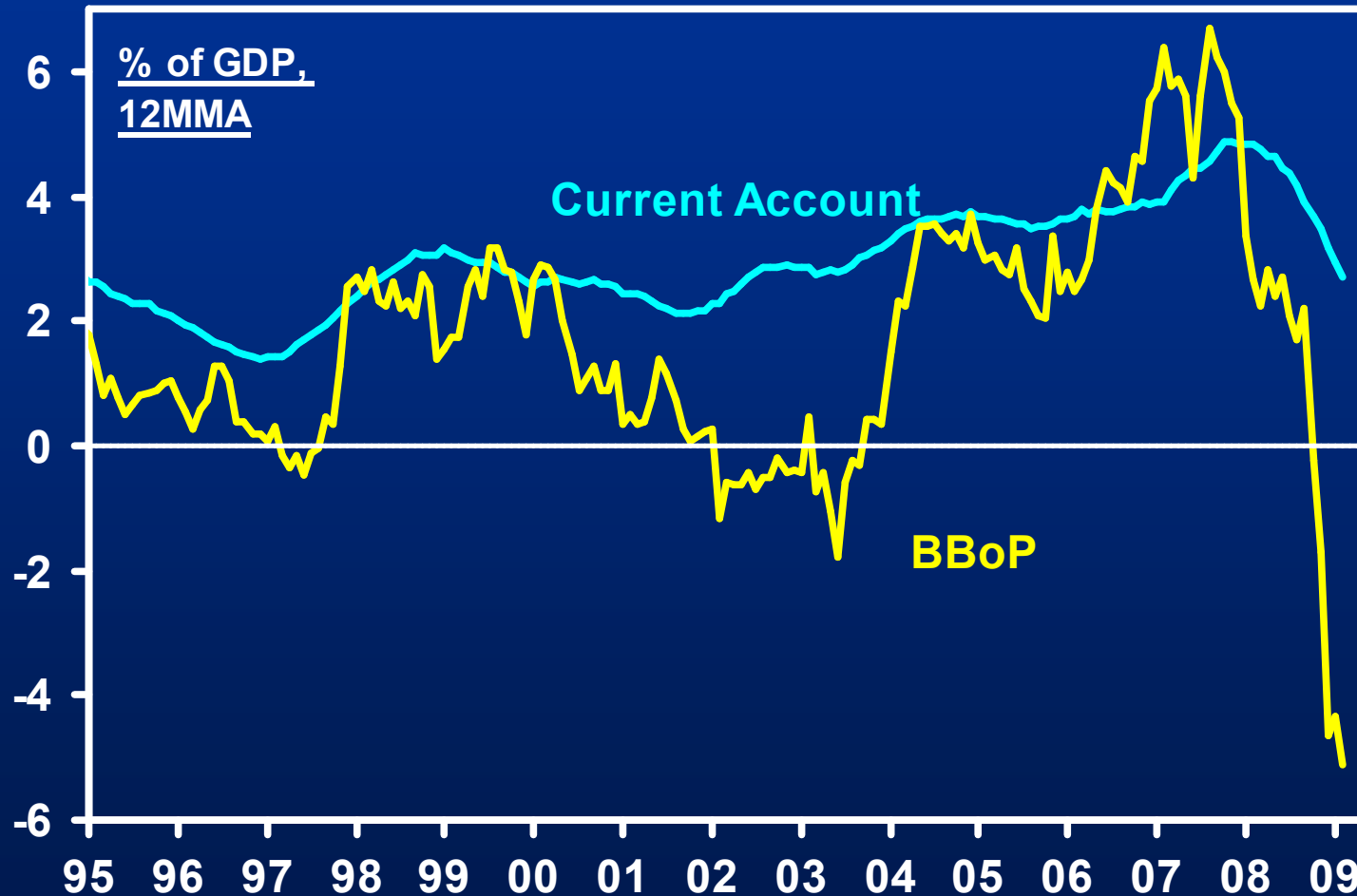
# BRICs BBoP vs Current Account



# Euroland: BBoP vs Current Account



# Japan: BBoP vs Current Account



# GDP Forecasts

%yoy	2007	2008	2009		2010	
			GS	Consensus*	GS	Consensus*
USA	2.0	1.1	-3.0	-2.7	1.2	1.8
Japan	2.4	-0.6	-5.3	-6.3	1.1	0.8
Euroland	2.6	0.7	-3.7	-3.4	0.7	0.3
UK	3.0	0.7	-3.4	-3.3	1.9	0.3
Europe	2.9	0.9	-3.5	-3.2	0.9	0.3
China	13.0	9.0	8.3	7.0	10.9	8.3
India	9.0	6.4	5.8	5.1	6.6	6.8
BRICs	10.4	7.5	4.8	4.7	8.0	6.6
Advanced Economies	2.7	0.9	-3.5	-3.3	1.2	1.2
World	5.0	2.9	-1.1	-0.9	3.3	2.8

\* Consensus Economics April 2009

# Domestic Demand Forecasts (%)

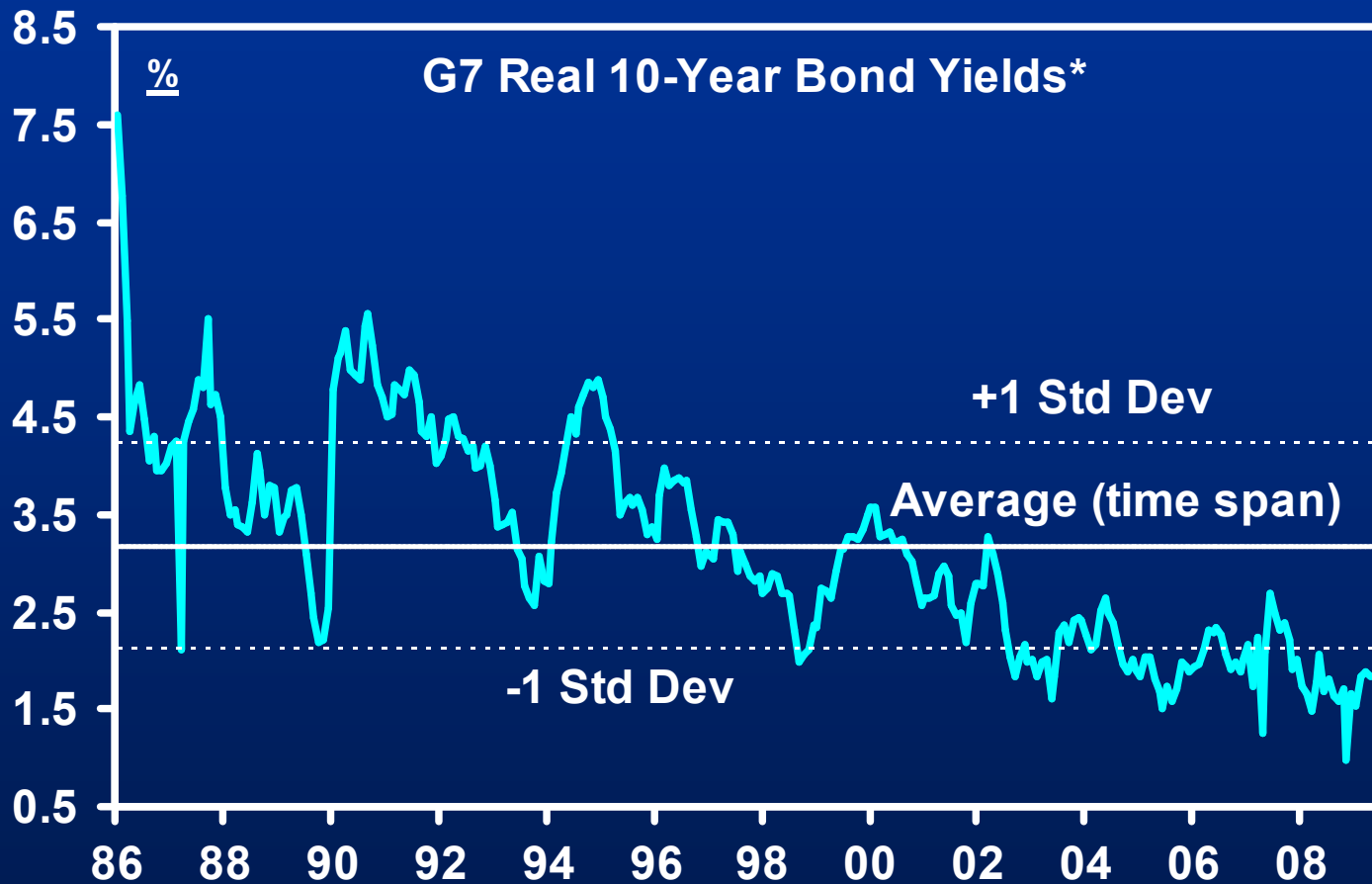
% yoy	2007	2008	2009(f)	2010(f)
US	1.4	-0.3	-3.6	1.0
Japan	1.3	-0.8	-2.1	0.6
Euroland	2.4	0.7	-1.7	0.7
UK	3.5	0.6	-4.3	1.1
China	10.6	8.9	9.8	12.6
India	9.9	8.0	6.1	6.9
BRICs	10.0	8.5	6.3	8.8
Advanced Economies	2.3	0.4	-2.7	1.0
World	4.7	2.9	-0.4	3.4

# Inflation Forecasts

%yoy	2007	2008	2009		2010	
			GS	Consensus*	GS	Consensus*
USA	2.9	3.8	-0.8	-0.7	0.5	1.6
Japan	0.1	1.4	-1.8	-1.3	-1.5	-0.5
Euroland	2.1	3.3	-0.1	0.4	1.2	1.3
UK	2.4	3.6	1.8	1.4	2.2	1.7
Europe	2.2	3.5	0.5	1.1	1.5	1.7
China	4.8	5.9	-0.3	-0.1	1.5	1.6
India	4.6	8.8	1.0	2.0	4.5	4.7
BRICs	5.6	7.5	2.3	2.5	3.6	3.7
Advanced Economies	2.2	3.4	-0.2	-0.0	0.8	1.3
World	3.7	5.5	1.4	1.4	2.2	2.5

\* Consensus Economics April 2009.

# G7 Real Bond Yields



\*Italy included from March 1991

# Updated Estimates for the Equity Risk Premium\*

	Real GDP Growth	Real Earnings Growth	+ Dividend Yield	= Expected Real Return	- Real Bond Yield	= Implied ERP	Expected Inflation	Expected Nominal Return
<b>US</b>	3.0	3.0	2.4	5.4	1.7	3.7	2.0	7.4
<b>Japan</b>	1.5	1.5	2.2	3.7	1.0	2.7	0.5	4.2
<b>UK</b>	2.8	2.8	4.9	7.7	0.5	7.2	2.0	9.7
<b>Europe ex UK</b>	2.3	2.3	4.8	7.0	0.5	6.5	2.0	9.0
<b>World</b>	2.5	2.5	3.5	6.0	1.1	4.9	1.8	7.7
<b>Optimistic World</b>	4.0	4.0	3.5	7.5	1.1	6.4	1.8	9.2

\*Calculated as of 13 May 2009.

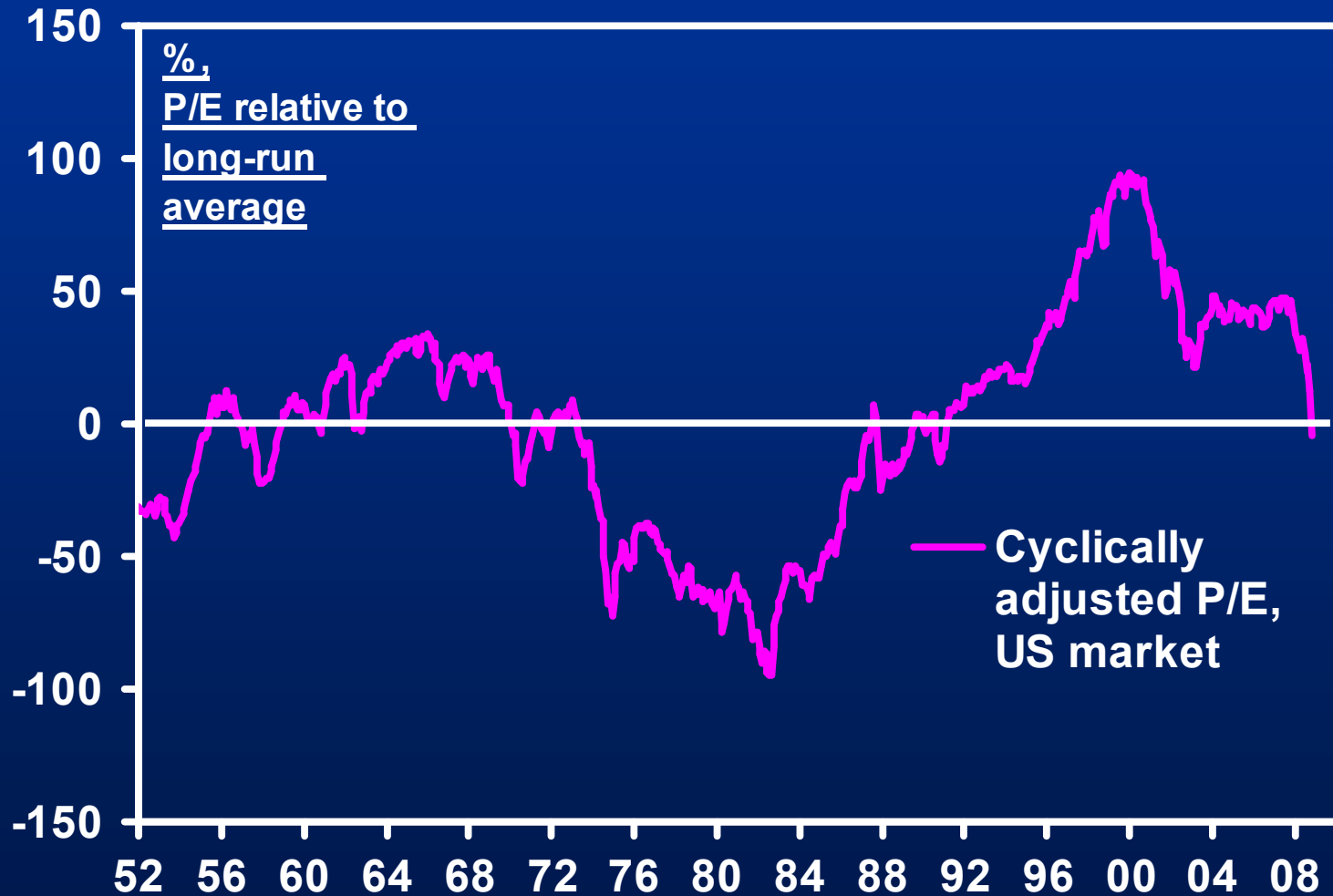
# P/E Ratios

MSCI 12-Month Forward PEs	
Japan	28.2x
India	14.5x
United States	14.4x
China	13.2x
Brazil	11.3x
Europe	11.0x
Russia	7.0x

# Unlike 2003, 'q' Measure Shows Equities Are Cheap



# Cyclically Adjusted P/E Not Demanding.



# GS DDM “Fair Value” and “Equilibrium” Levels

	Current Level	Central Scenario		Using Sudoku Fair Value Bond model		Using equilibrium ERP* and 2% real interest rate	
		Fair Value Level	Fair Value Upside / (Downside)	Fair Value Level	Fair Value Upside / (Downside)	Fair Value Level	Fair Value Upside / (Downside)
US (S&P 500)	907	783	(14%)	905	(0%)	1369	51%
Europe (Stoxx 600)	206	196	(5%)	245	19%	395	92%
Japan (TOPIX)	886	953	8%	1046	18%	1635	85%
Asia (MSCI APxJ)	336	267	(20%)	NA	NA	398	19%

# Interest Rate Forecasts

		Current*	3-month horizon		6-month horizon		12-month horizon	
			Forward	Forecast	Forward	Forecast	Forward	Forecast
US	3M	0.9	0.8	1.0	0.8	1.0	1.1	1.0
	10Y	3.1	3.2	2.7	3.4	2.8	3.6	3.0
Canada	3M	0.3	0.4	0.4	0.4	0.4	0.7	0.4
	10Y	3.0	3.1	2.9	3.2	3.0	3.5	3.3
Australia	3M	3.1	3.1	3.6	3.0	3.1	3.3	3.6
	10Y	4.9	5.0	4.3	5.1	4.5	5.3	4.6
Japan	3M	0.6	0.5	0.6	0.5	0.5	0.5	0.5
	10Y	1.5	1.5	1.1	1.6	1.2	1.7	1.4
Euroland	3M	1.3	1.2	1.3	1.2	1.1	1.4	1.1
	10Y	3.3	3.4	2.7	3.4	2.9	3.6	3.1
UK	3M	1.4	1.3	1.2	1.3	1.2	1.7	1.8
	10Y	3.5	3.6	3.0	3.8	3.2	4.0	3.5
Sweden	3M	1.0	0.9	1.1	0.9	1.1	1.3	1.6
	10Y	3.6	3.6	2.6	3.8	2.7	4.0	3.0
Switzerland	3M	0.4	0.4	0.3	0.3	0.3	0.5	0.3
	10Y	2.3	2.4	1.8	2.4	1.9	2.6	2.1

Close 13 May 09

# Possible US Trade Outcomes

	Bad scenario		Better scenario		Best scenario	
	Exports	Imports	Exports	Imports	Exports	Imports
	-8.4%	-14.7%	+12.0	+7.4%	+11.8%	-0.12%
Monthly trade deficit (US\$bn)	-25.7		-36.8		-24.5	
% of GDP	-2.2		-3.1		-2.1	

Source: US Census Bureau, GS Global ECS Research

# GSDEER and Misalignment

	Spot	GSDEER		Misalignment	
	13-May-09	Current (2Q09)*	4Q10	Bilateral <sup>1</sup>	Trade- Weighted <sup>1</sup>
EUR/\$	1.36	1.18	1.16	15.7%	11.4%
\$/JPY	95.50	110.39	115.55	15.6%	14.3%
£/\$	1.52	1.54	1.54	-1.2%	-8.9%
\$/CAD	1.17	1.18	1.14	0.4%	-6.0%
\$/CNY	6.83	7.21	7.67	5.6%	7.3%

<sup>1</sup> Bilateral misalignments are reported for the second currency in the pair with the exception of EUR/\$, GBP/\$, AUD/\$, and NZD/\$. A negative misalignment indicates that a currency is undervalued relative to its anchor currency.

# Capital Flows Over Time (% of GDP)

	1 Year	3 Years	5 Years	10 Years	Trend
Current Account	-5.3	-5.7	-5.5	-4.5	Mixed / Worse
Net FDI	-0.7	0.0	-0.5	0.0	Mixed / Worse
Narrow Basic Balance	-6.0	-5.7	-5.9	-4.5	Mixed / Worse
Net Equity	0.5	-0.1	-0.3	-0.1	Mixed / Better
Net US Treasuries	1.1	0.6	0.7	0.3	Mixed / Better
US Overseas Bonds	-1.1	-0.7	-0.5	-0.4	Worse
Foreign US Corporates	3.1	2.6	2.2	1.8	Better
Foreign US Agencies	0.3	0.4	0.3	0.4	Mixed / Worse
Net Portfolio	3.9	2.8	2.5	2.2	Better
Broad Basic Balance	-2.1	-2.9	-3.4	-2.4	Mixed / Better
Source: Bureau of Economic Analysis, GS Global ECS Research					

# Foreign Exchange Forecasts

	Current*	3-months		6-months		12-months	
		Forward	Forecast	Forward	Forecast	Forward	Forecast
EUR/\$	1.36	1.36	1.40	1.36	1.45	1.36	1.45
\$/¥	95.5	95.4	105.0	95.3	100.0	94.9	100.0
EUR/¥	130.0	129.8	147.0	129.6	145.0	129.1	145.0
EUR/CHF	1.51	1.50	1.60	1.50	1.58	1.49	1.58
CHF/¥	86.32	86.34	91.88	86.37	91.77	86.40	91.77
\$/CHF	1.11	1.10	1.14	1.10	1.09	1.10	1.09
EUR/£	0.90	0.90	0.88	0.90	0.84	0.90	0.78
£/\$	1.52	1.52	1.60	1.52	1.73	1.52	1.86
£/¥	144.9	144.7	168.0	144.5	173.0	143.9	186.0
£/CHF	1.68	1.68	1.83	1.67	1.89	1.67	2.03
EUR/NOK	8.87	8.88	8.70	8.90	8.40	8.94	8.00
EUR/SEK	10.74	10.73	10.80	10.73	10.30	10.73	9.50
A\$/	0.75	0.75	0.77	0.75	0.77	0.74	0.77
NZ\$/	0.59	0.59	0.60	0.59	0.58	0.58	0.56
\$/C\$	1.17	1.17	1.12	1.17	1.10	1.17	1.10
\$/CNY	6.83	6.80	6.83	6.77	6.83	6.73	6.83

\* Close 13 May 09

# Our Top Trades for 2009

Trade	Current Spot*	Entry Level	Target	Total Return (Including Carry**)
1. Close Long Chinese A-shares	-	2079	2600	22.0%
2. Close Long/Short EM FX Differentiation Basket	-	100	106**	7.9%
3. Close Short Dec-11 crude oil futures	-	\$67.97	\$60	10.4%
4. Close long US 30-yr current coupon (5%) Fannie-Mae MBS	-	4.70%	4%	250bp
5. Close short credit protection on Sweden through 5-yr CDS	-	148bp	60bp	71bp
6. Close long Wavefront Housing Basket	-	58.97	70	18.5%
7. Long Cable	1.517	1.48	1.65	3.1%
8. Short EUR versus an equally-weighted basket of NOK, SEK and GBP <sup>1</sup>	104.7	100	110	4.7%
9. Long a basket of EM vs G3 currencies (long BRL, MXN, ZAR, RUB, IDR vs short USD, EUR and JPY) through 12 month forwards <sup>2</sup>	105.0	100	110	5.0%
10. Long China Cyclical, short US Consumer Cyclical <sup>3</sup>	178.7	178.4	210	0.2%

\*13 May 2009; \*\*where applicable; <sup>1</sup>Opened on 05 Jan 2009;

<sup>2</sup>Opened on 02 April 09; <sup>3</sup>Opened on 12 May 09.

Source for all tables / charts is Goldman Sachs Economic Research unless otherwise stated

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