

# The world economy and commodities

Long-term opportunities vs. short-term risks

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August 2006

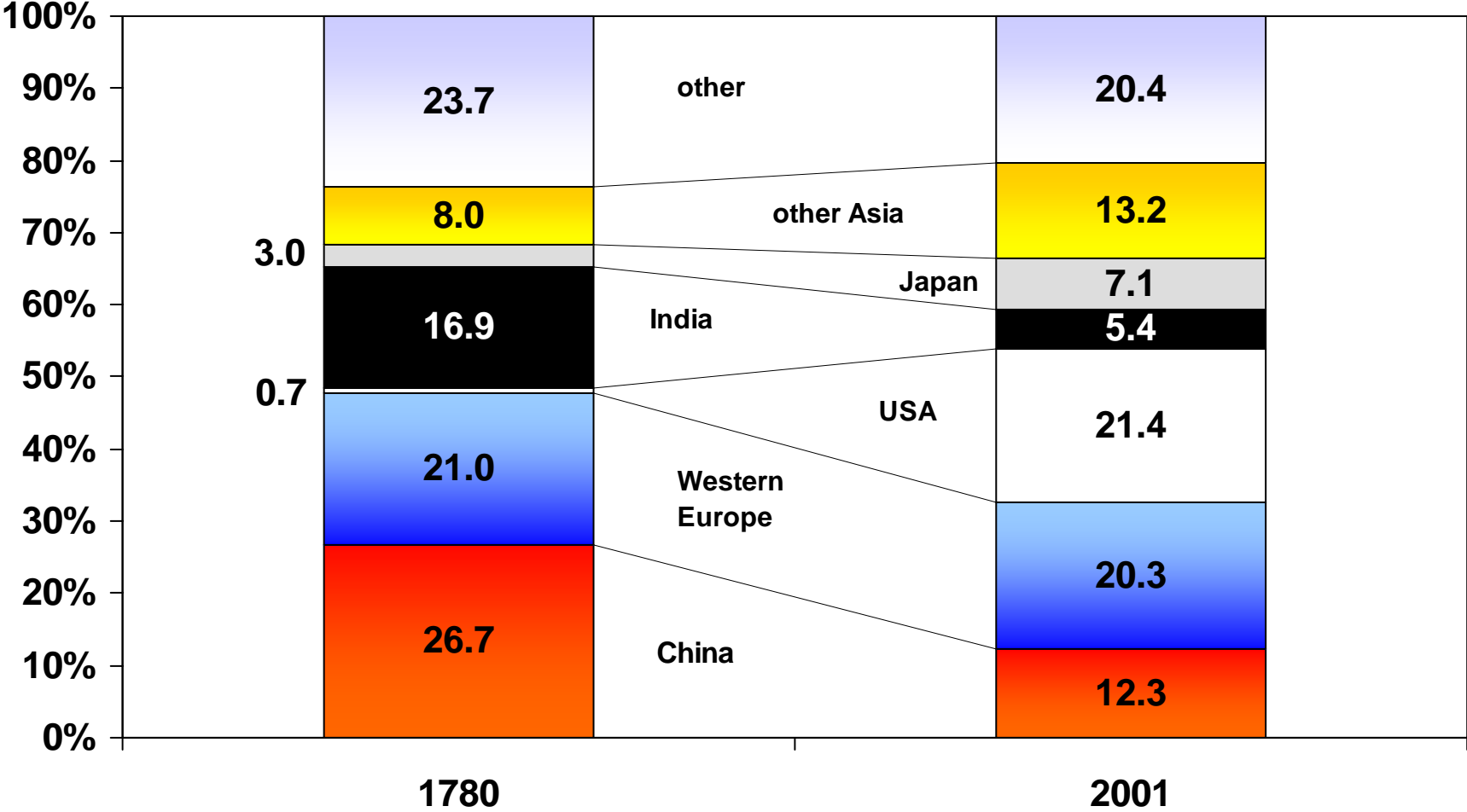


# World outlook and commodities

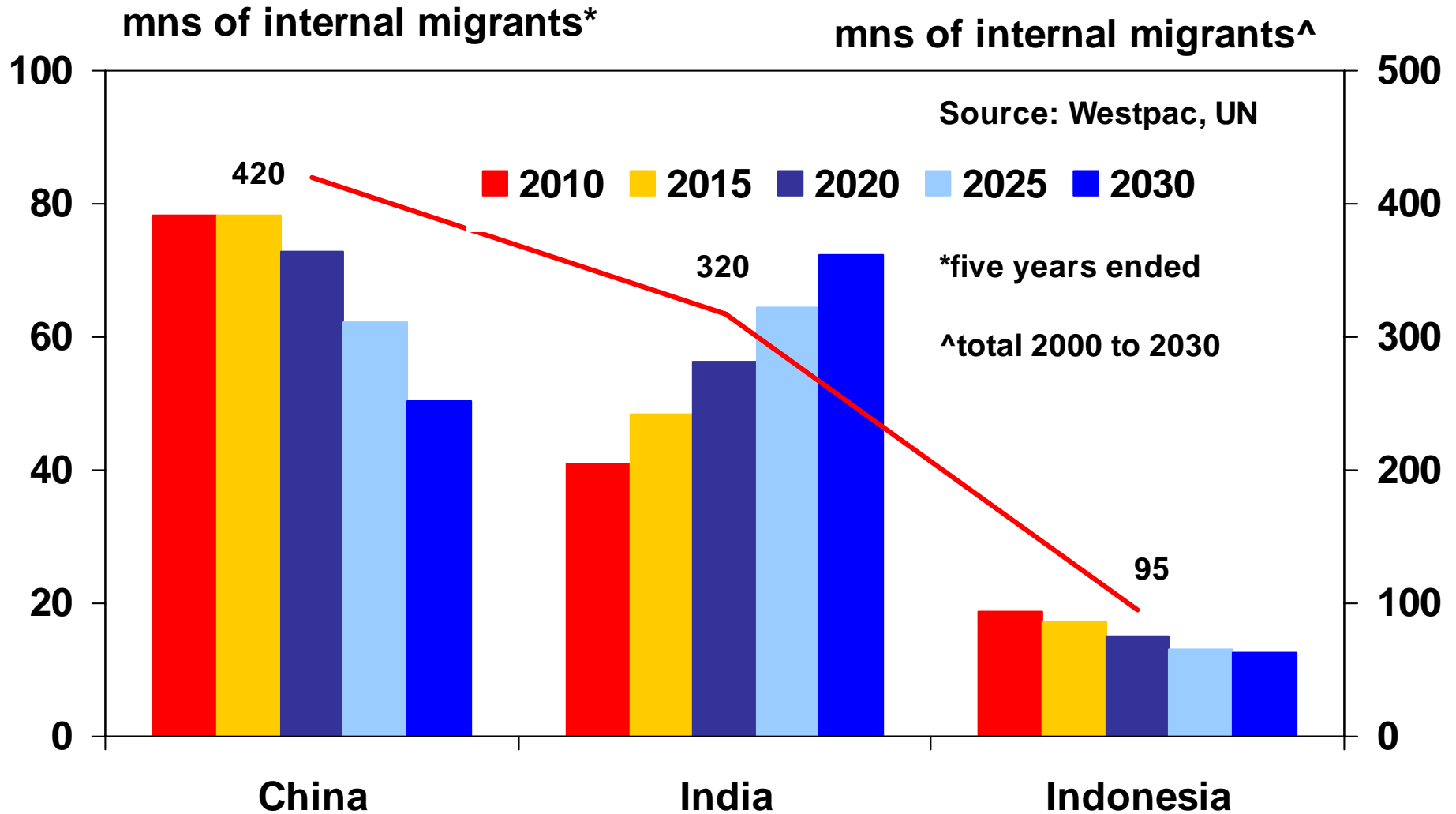
- **Have we passed the peak?**
- **China, India and the urbanisation of Asia**
- **OECD - still matters for cyclical demand**
- **What of individual commodity factors - copper, oil & gold.**
- **Global imbalances - what do they mean for our forecasts.**

# Urbanisation in Asia

# The global economy now and in 1780



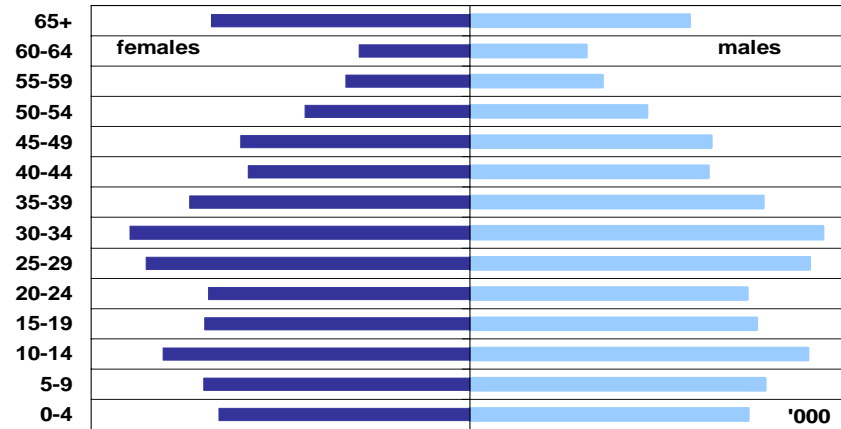
# Urbanisation in Asia: the next big thing



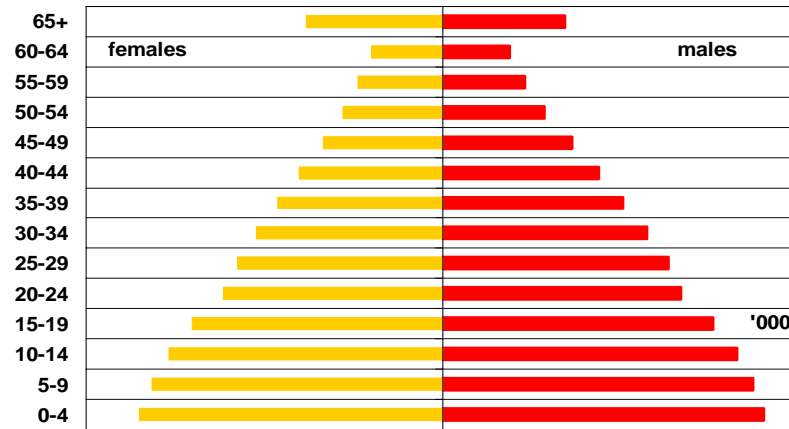
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# Long run demographics favour India

## China 2000

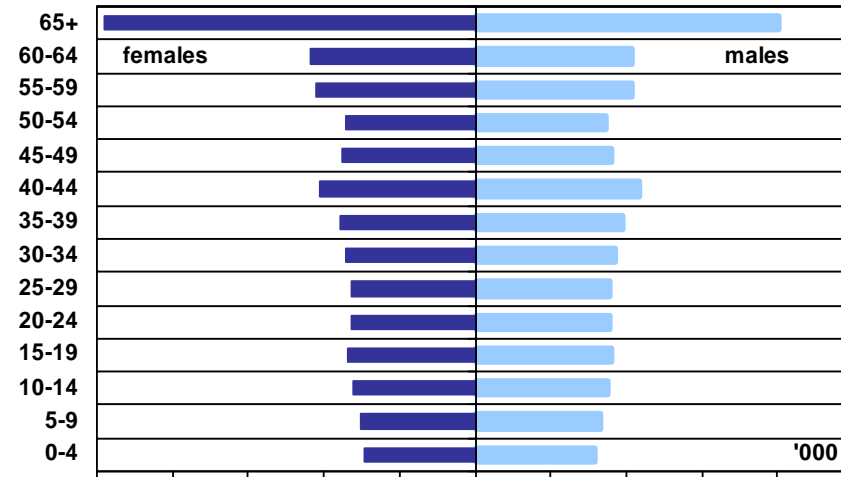


## India 2000

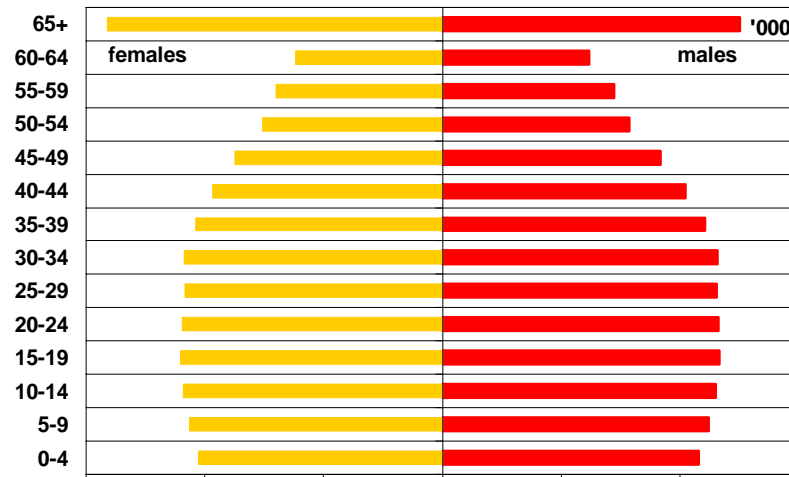


## China 2030

Source: UN

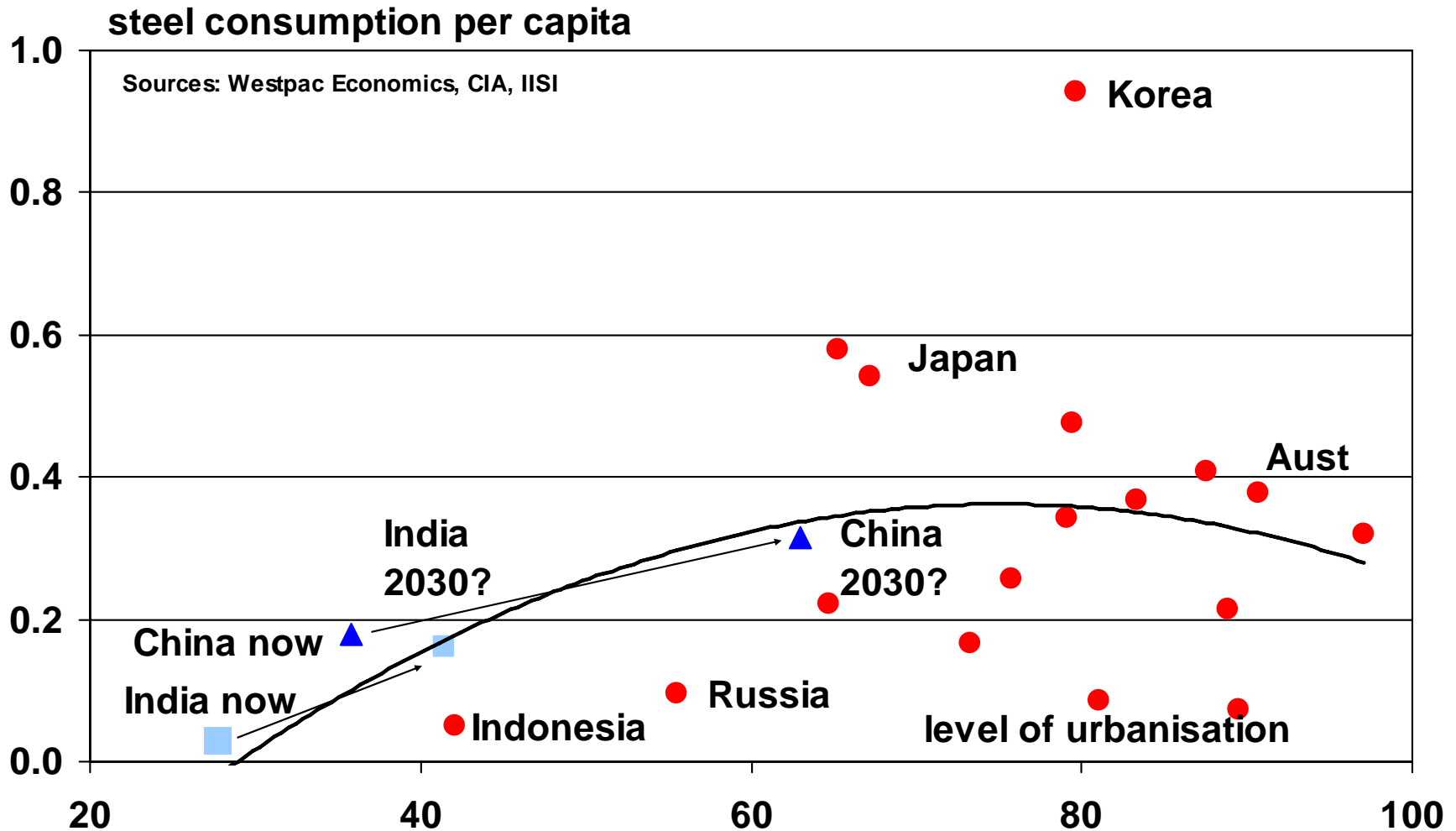


## India 2030

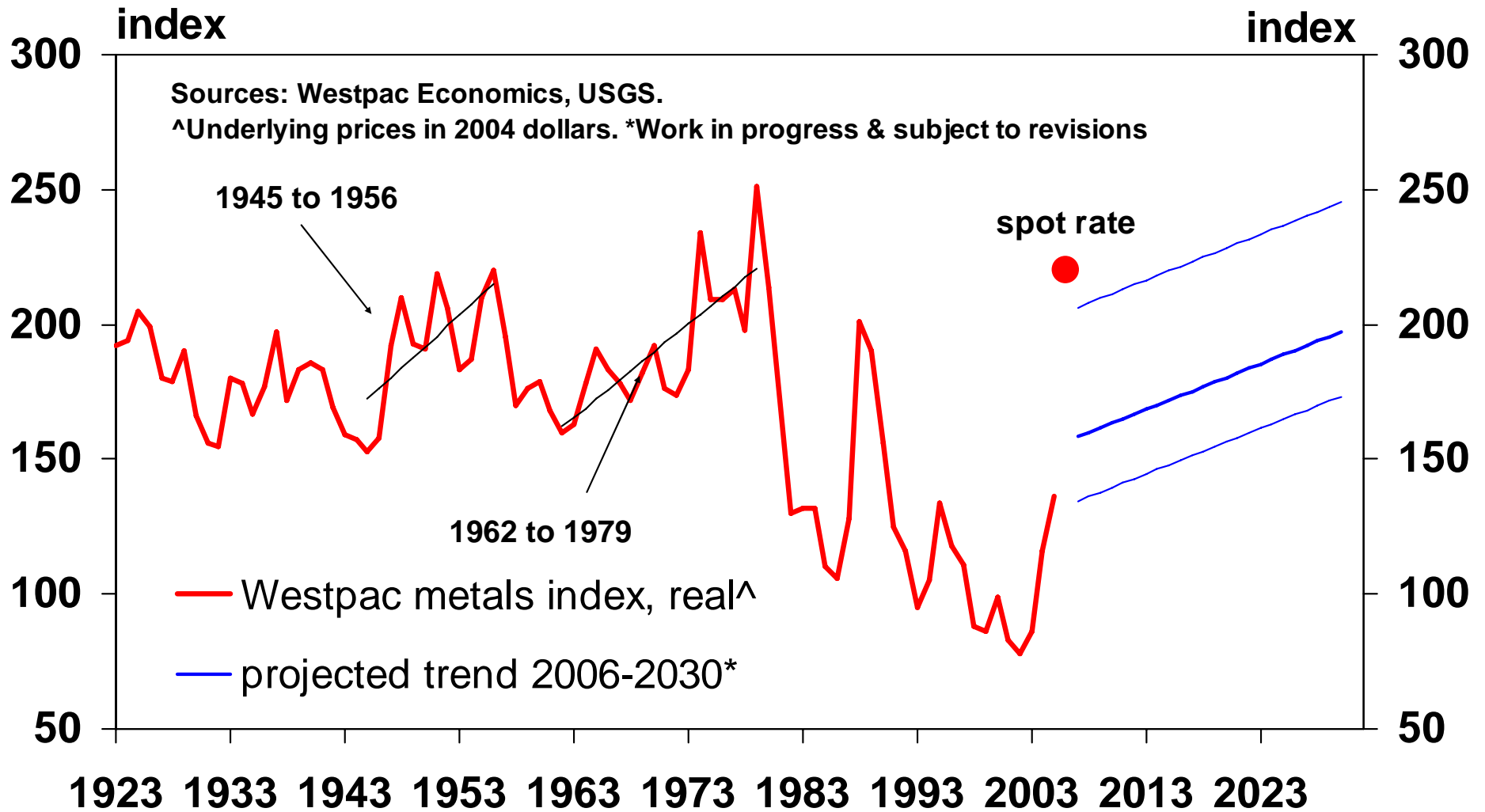


# How will urbanisation impact on demand for commodities?

# Steel consumption & level of urbanisation

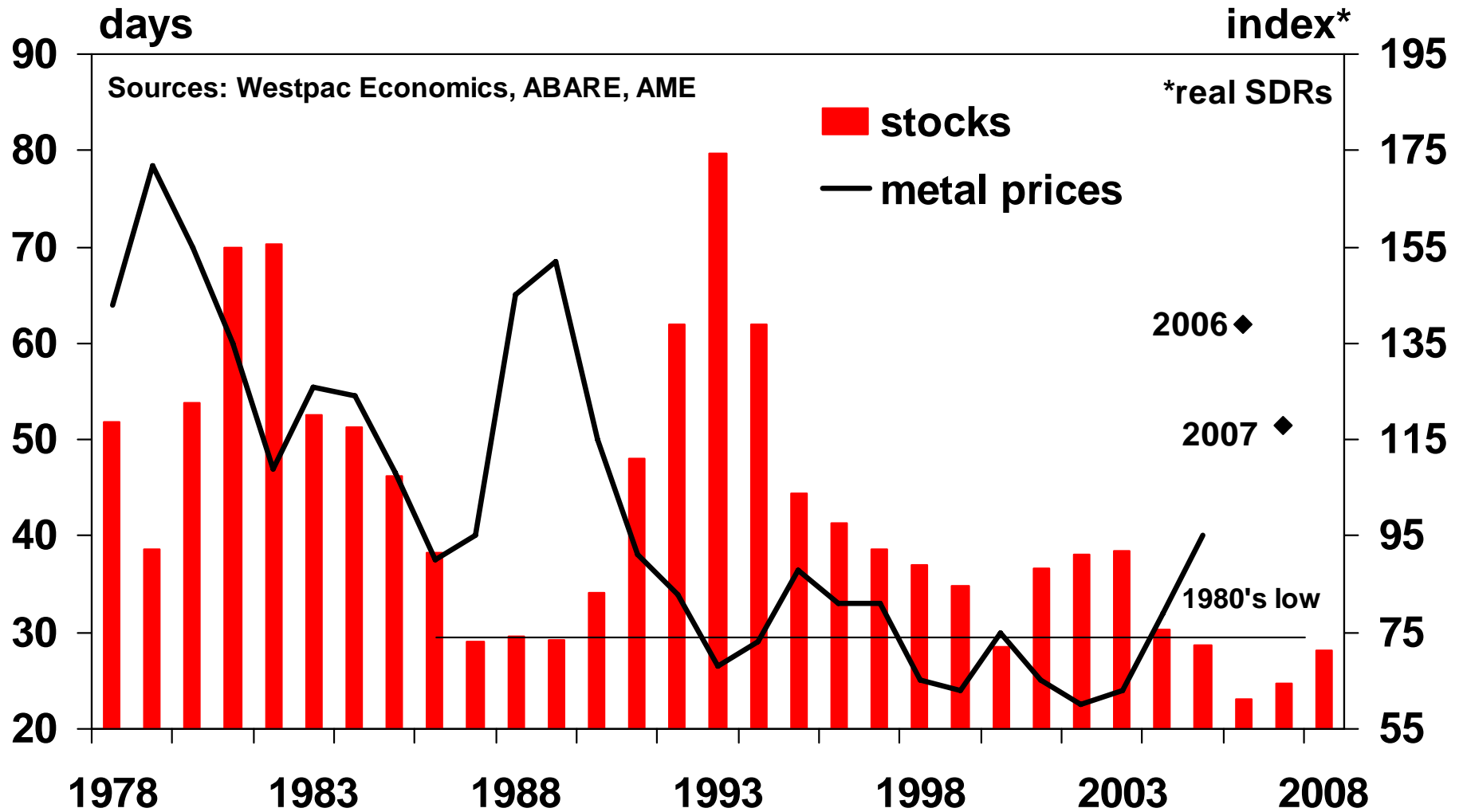


# Projecting the real base metals index

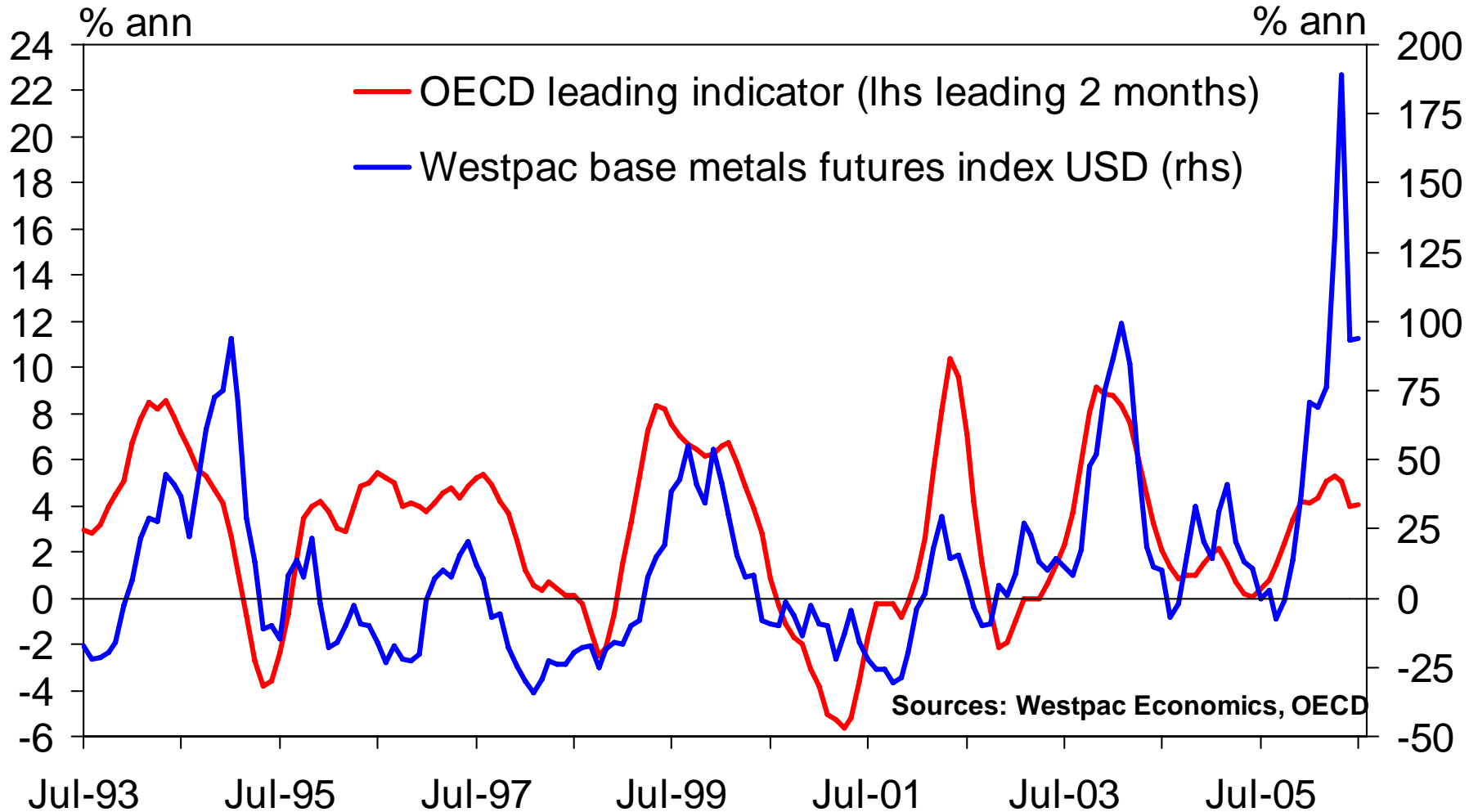


# Short run cyclical factors

# Stocks falling below 1980s lows



# OECD indicator remains supportive for now

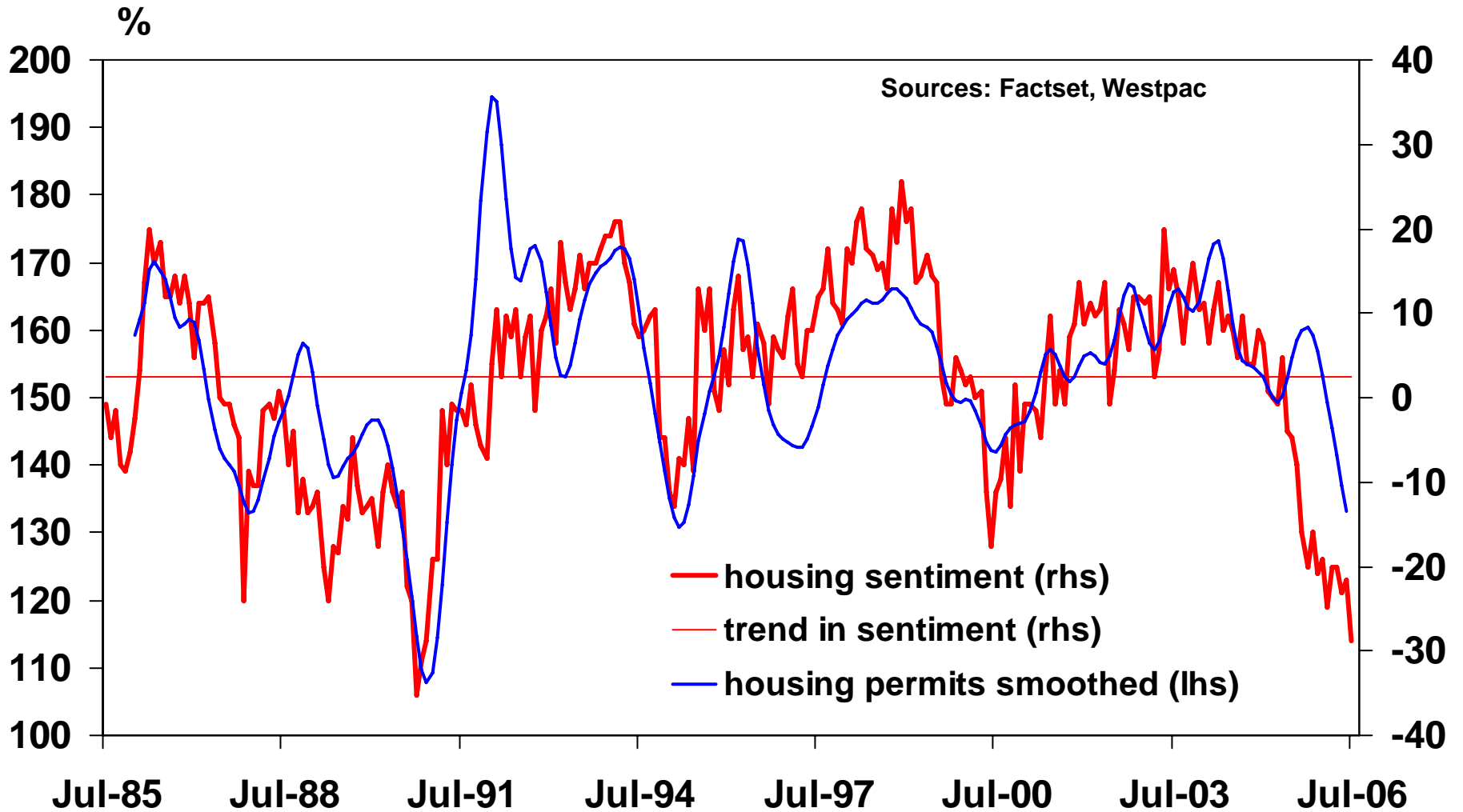


Sources: Westpac Economics, OECD



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# US dwelling sentiment & permits



# Executive Summary – global activity

## G3

US housing and the labour market are the key

Japanese expansion solid, led by domestic demand

EU recovery unbalanced, externally focused

## Asia

Chinese growth composition creates vulnerability

Korean recovery to broaden out

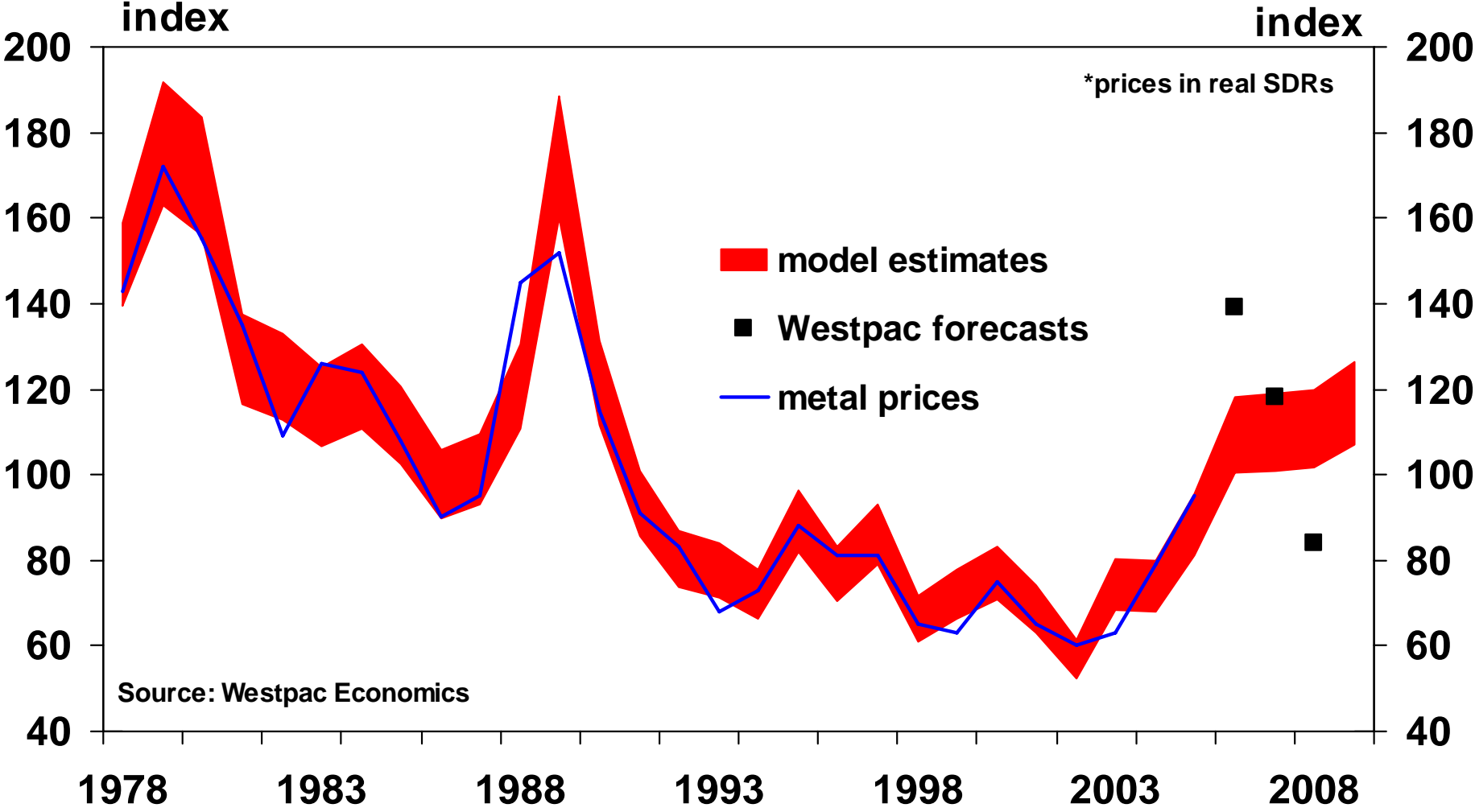
Malaysia to out-perform Thailand medium and long term

Institutional weakness still a problem in Indonesia, the Philippines

## World

Robust 4.5% in 2006, a more modest 4% in 2007

# Base metals over-running fundamentals

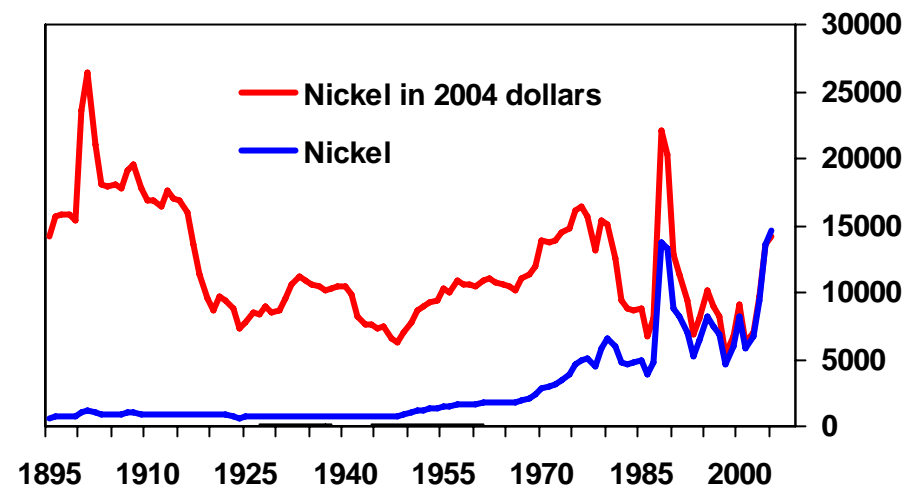
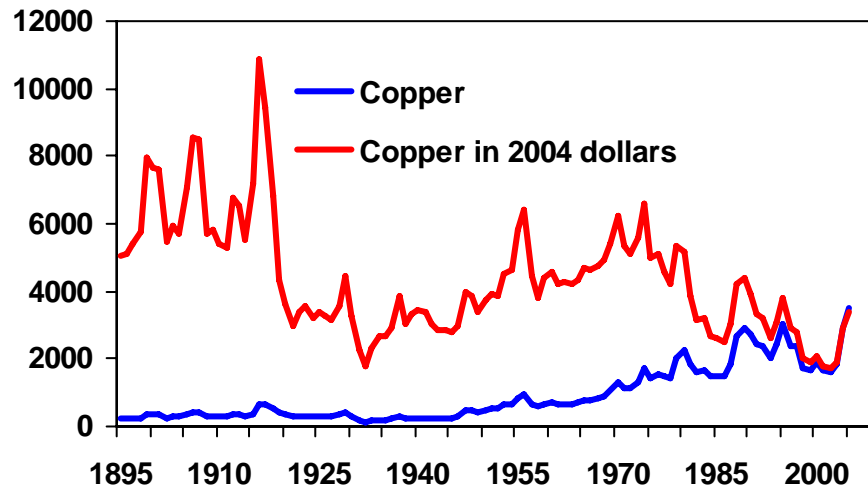
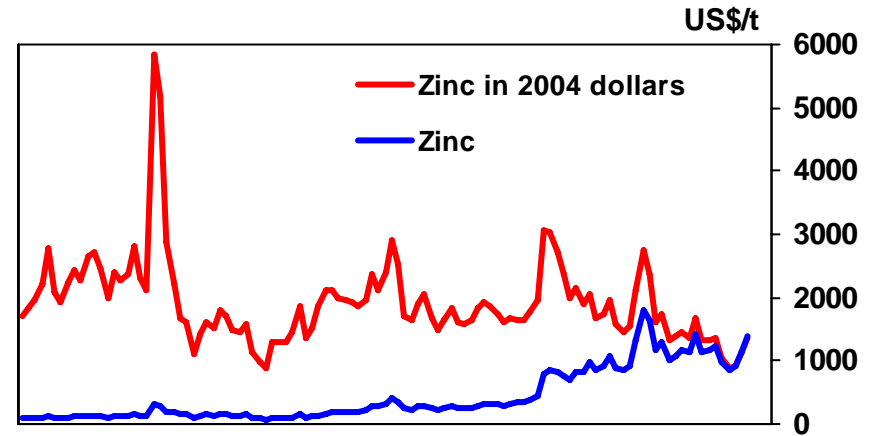
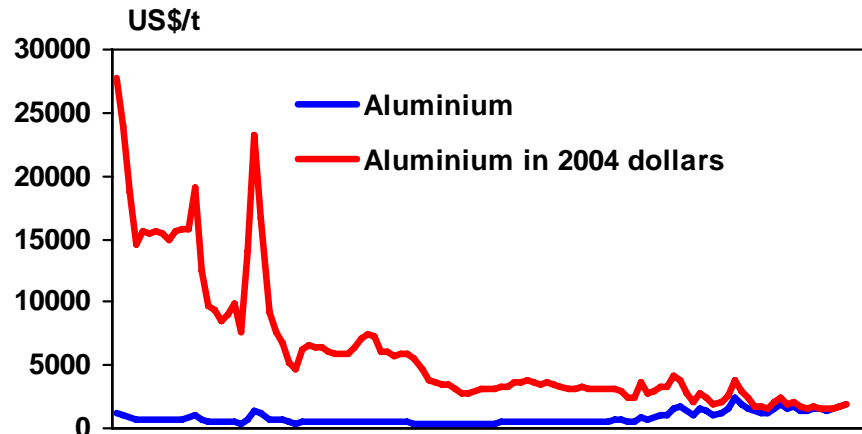


Source: Westpac Economics



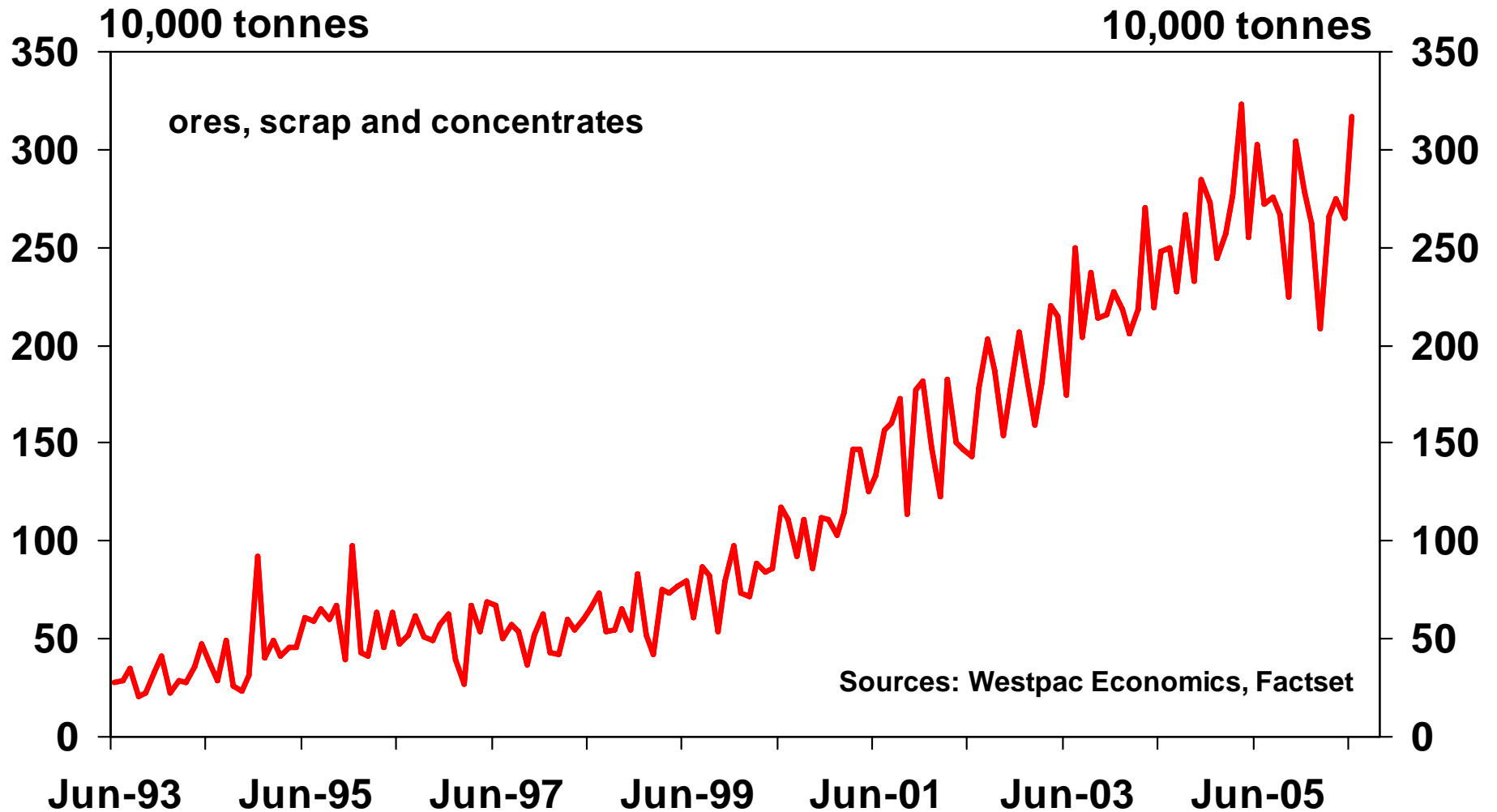
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# Not all metals are equal

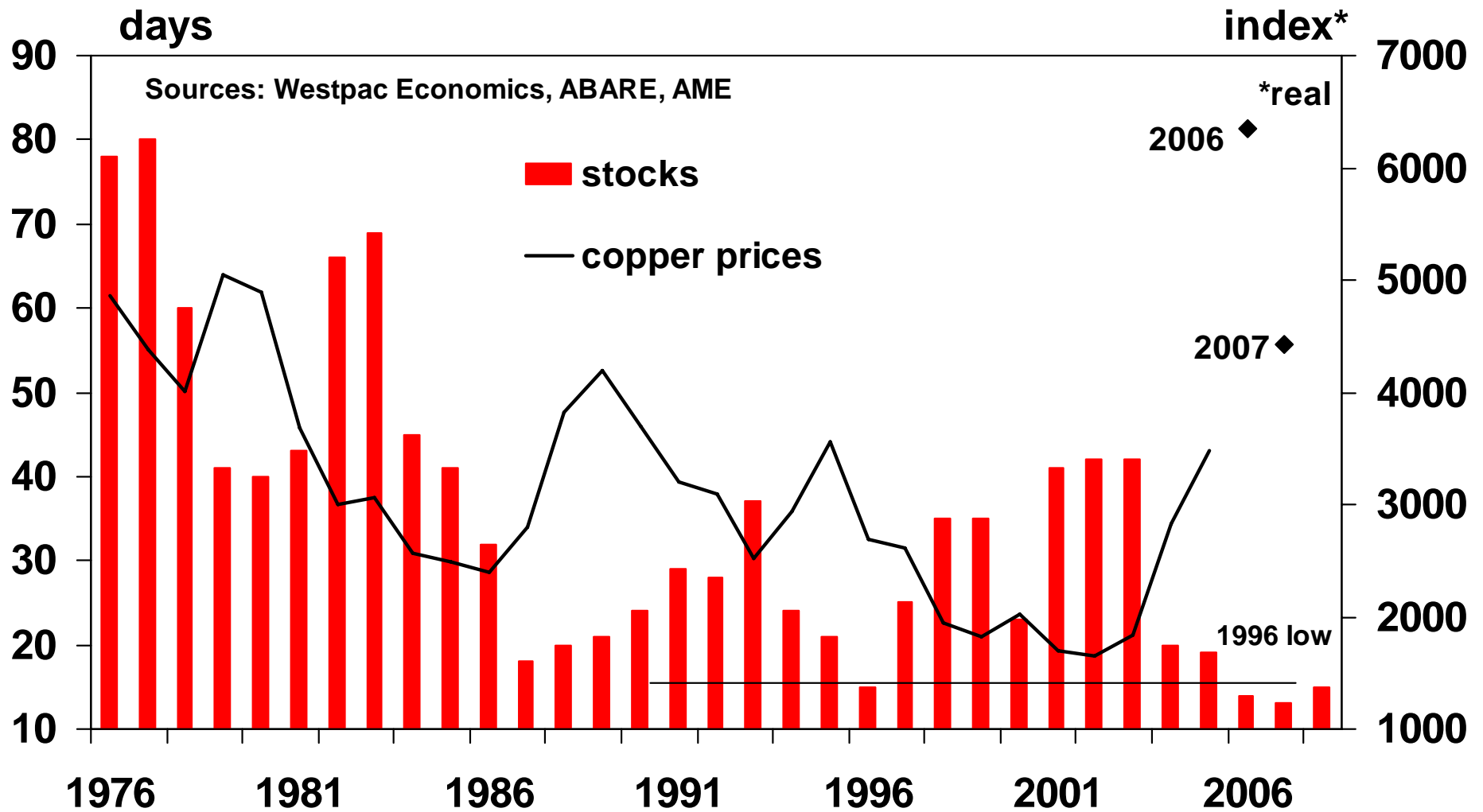


# Copper has a more bullish story

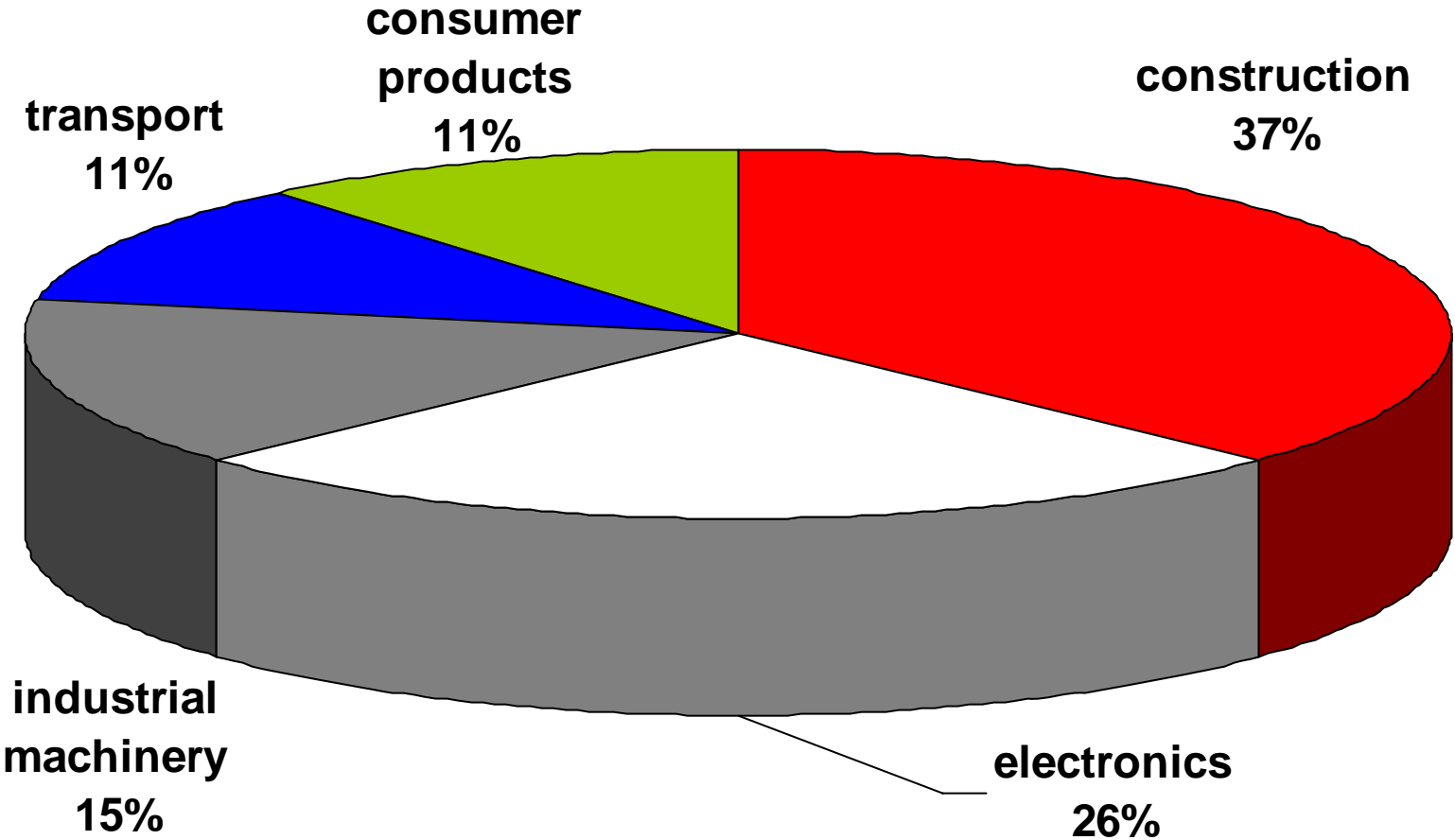
# Chinese imports of base metals



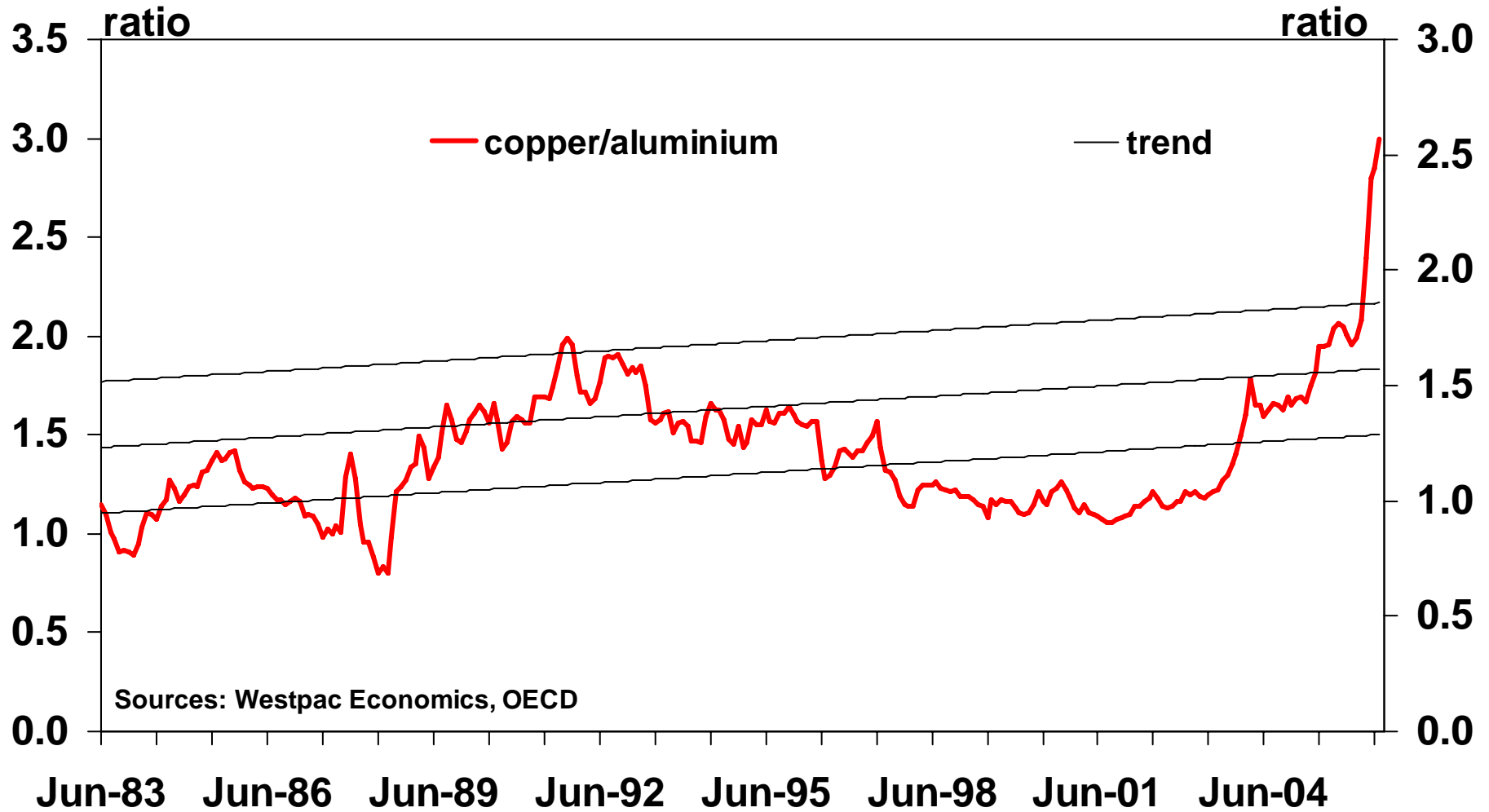
# Copper stocks holding below 1996 lows



# Western world copper demand by use



# Copper is getting more expensive

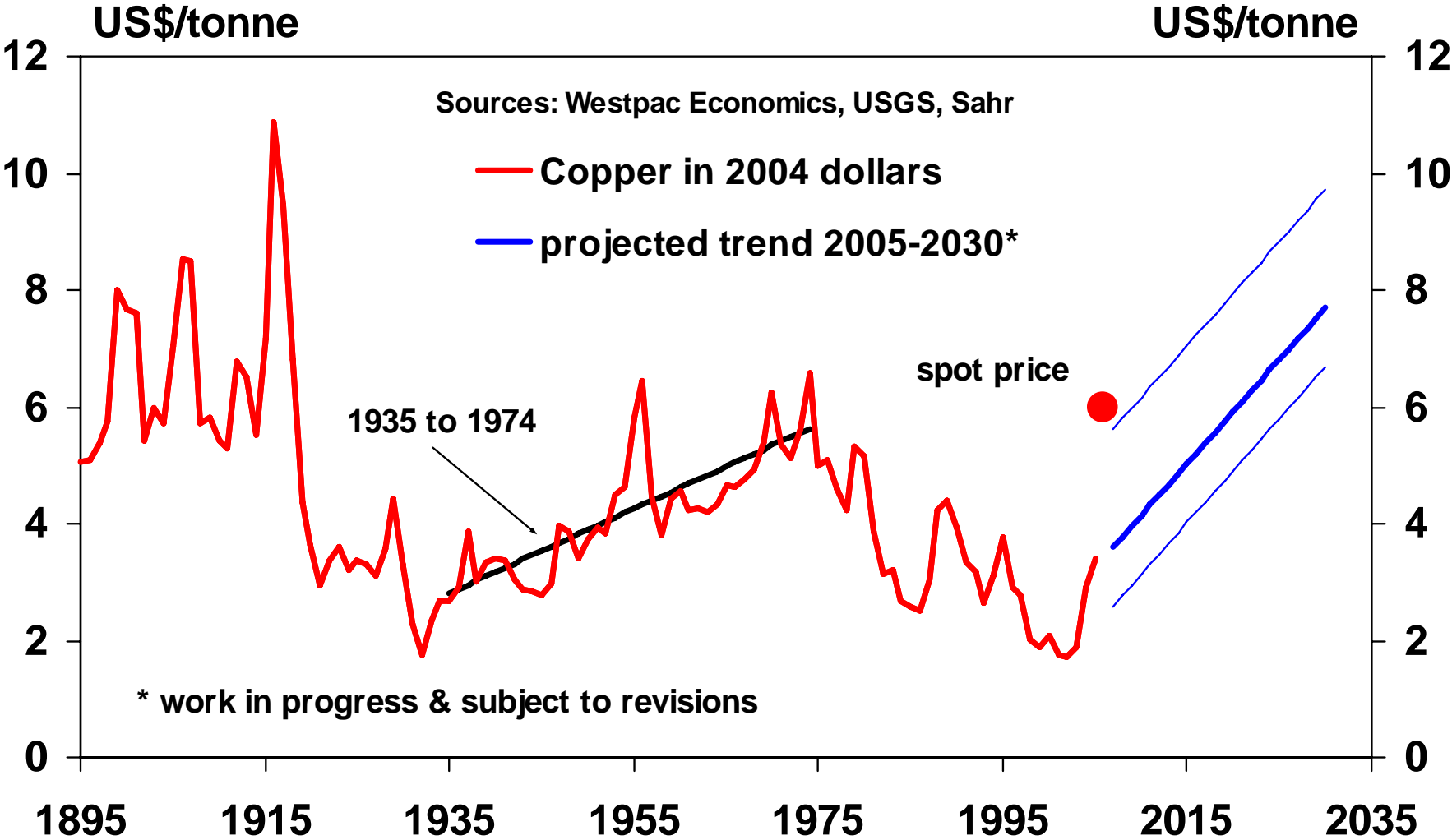


Sources: Westpac Economics, OECD



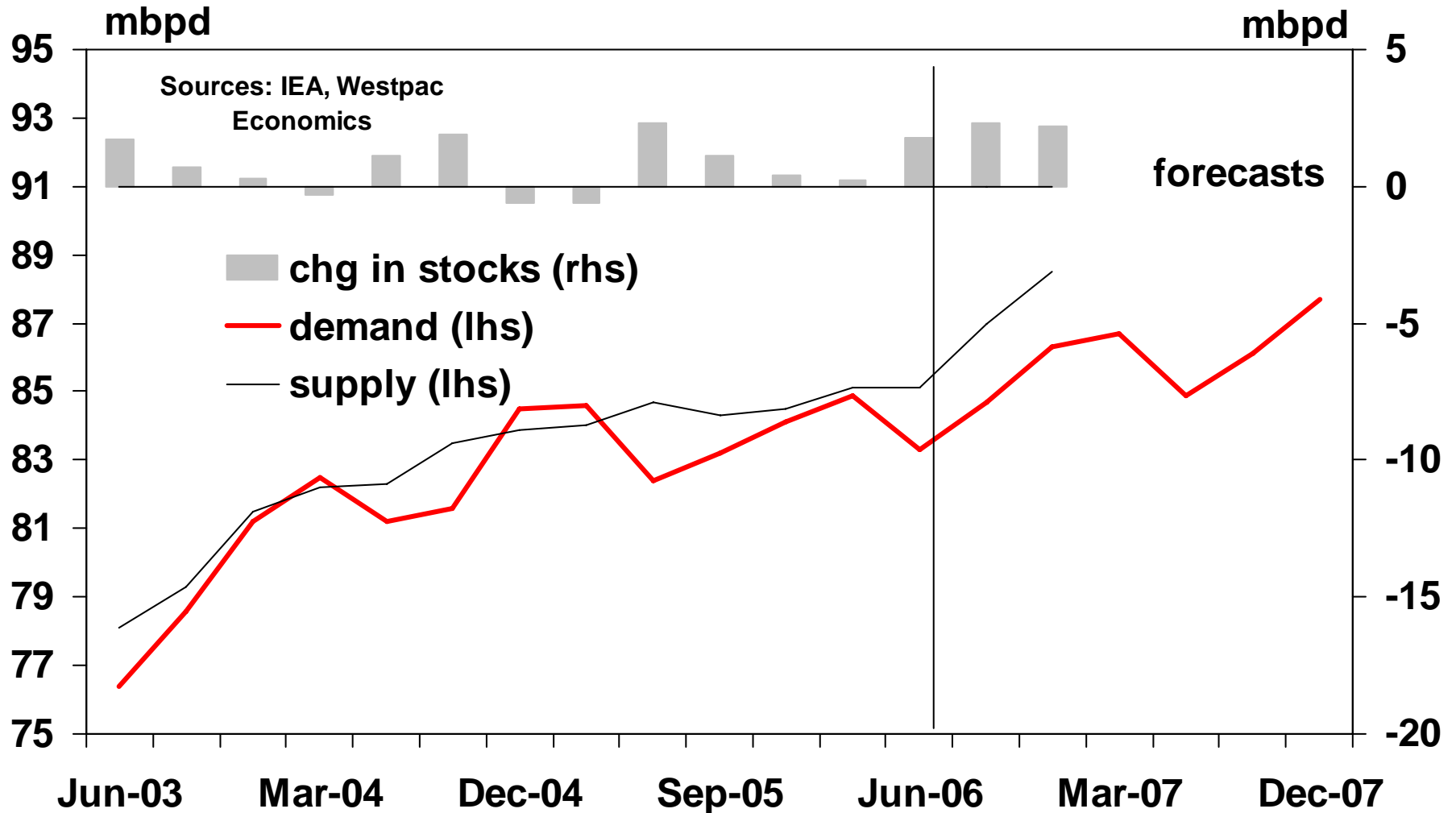
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# Copper: volatility within long cycles

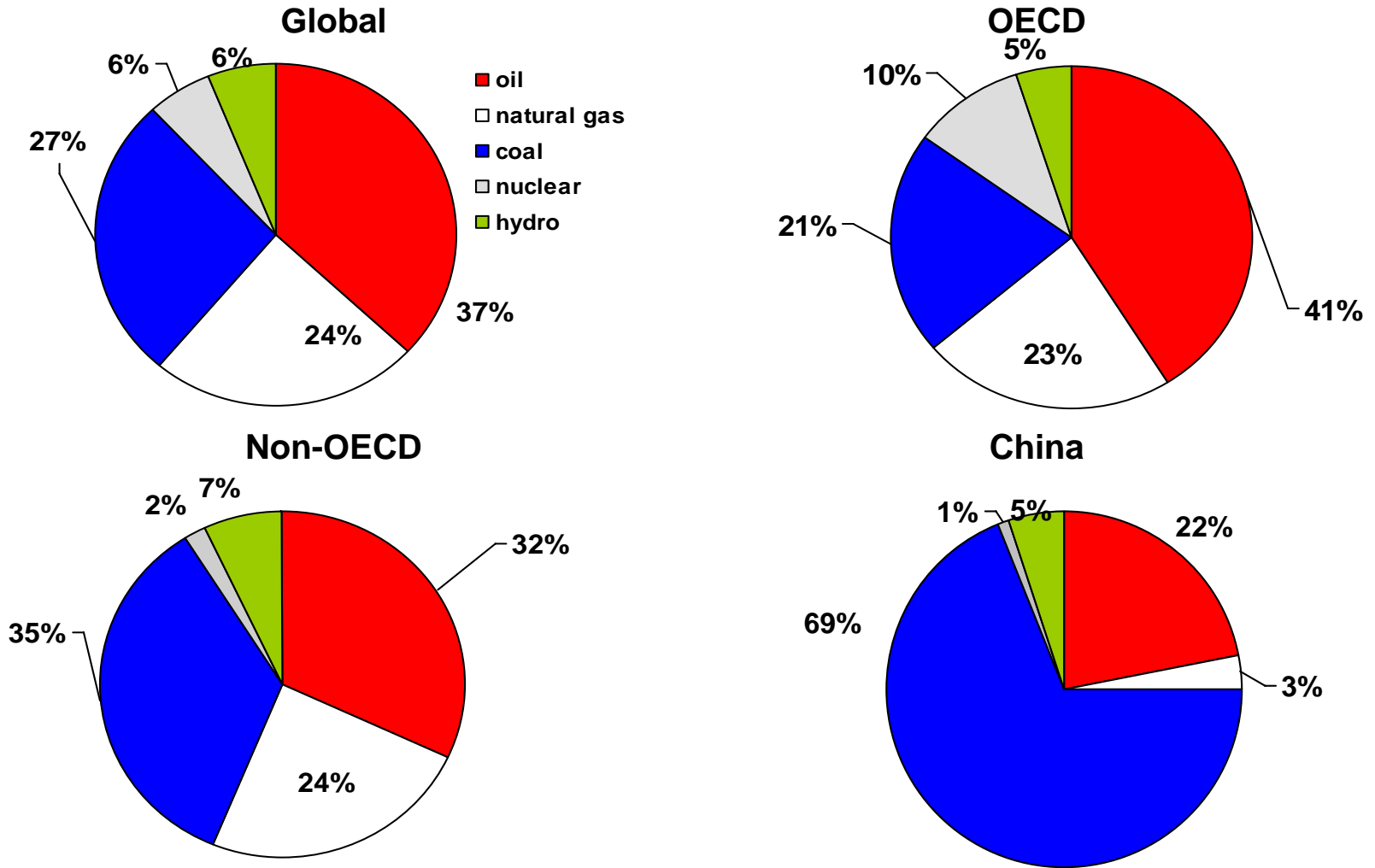


# Oil prices remain at the mercy of supply shocks

# Macro perspectives on the world oil market

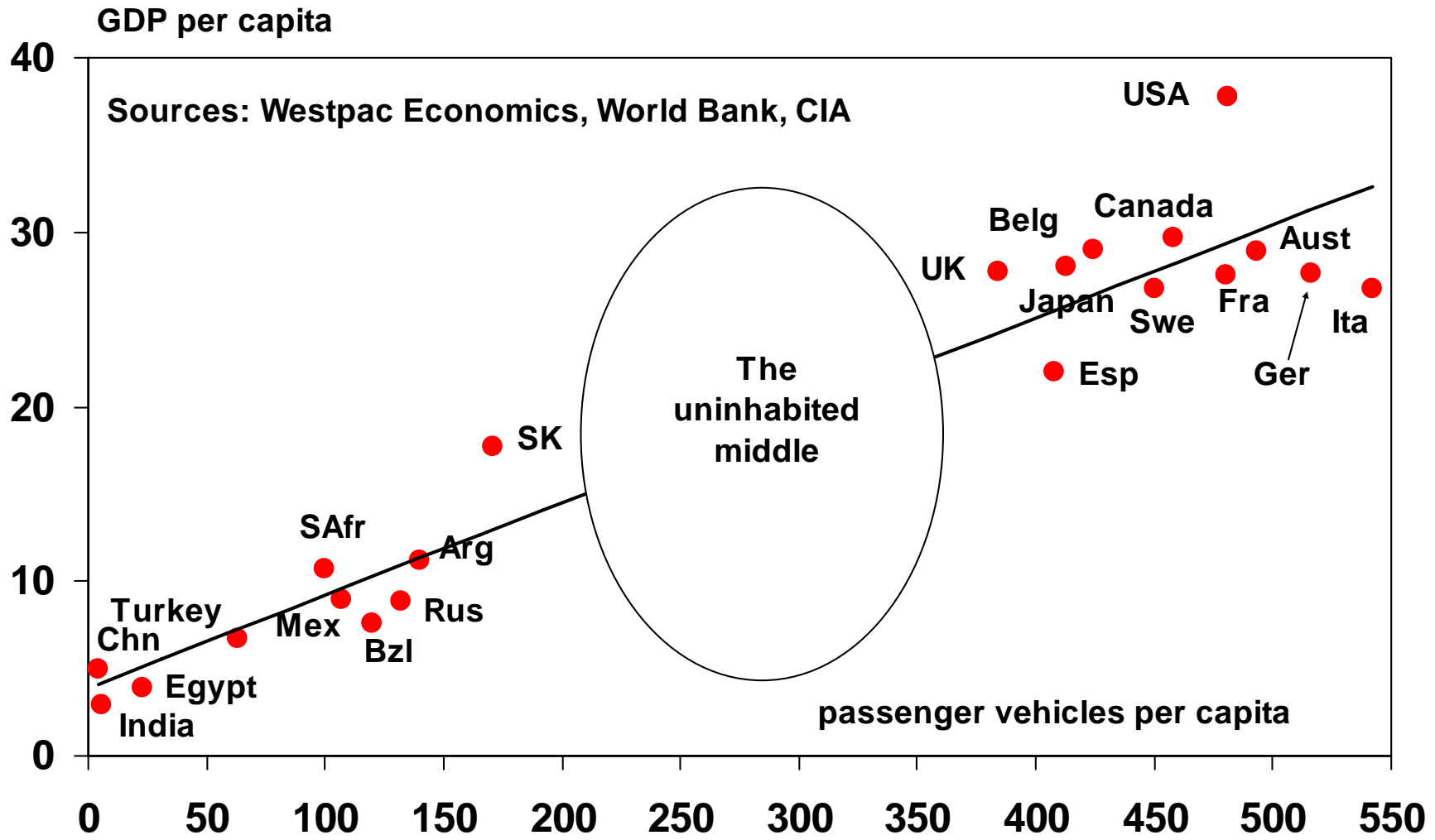


# Composition of energy demand



Sources: BP Statistical Review of World Energy, Westpac Economics

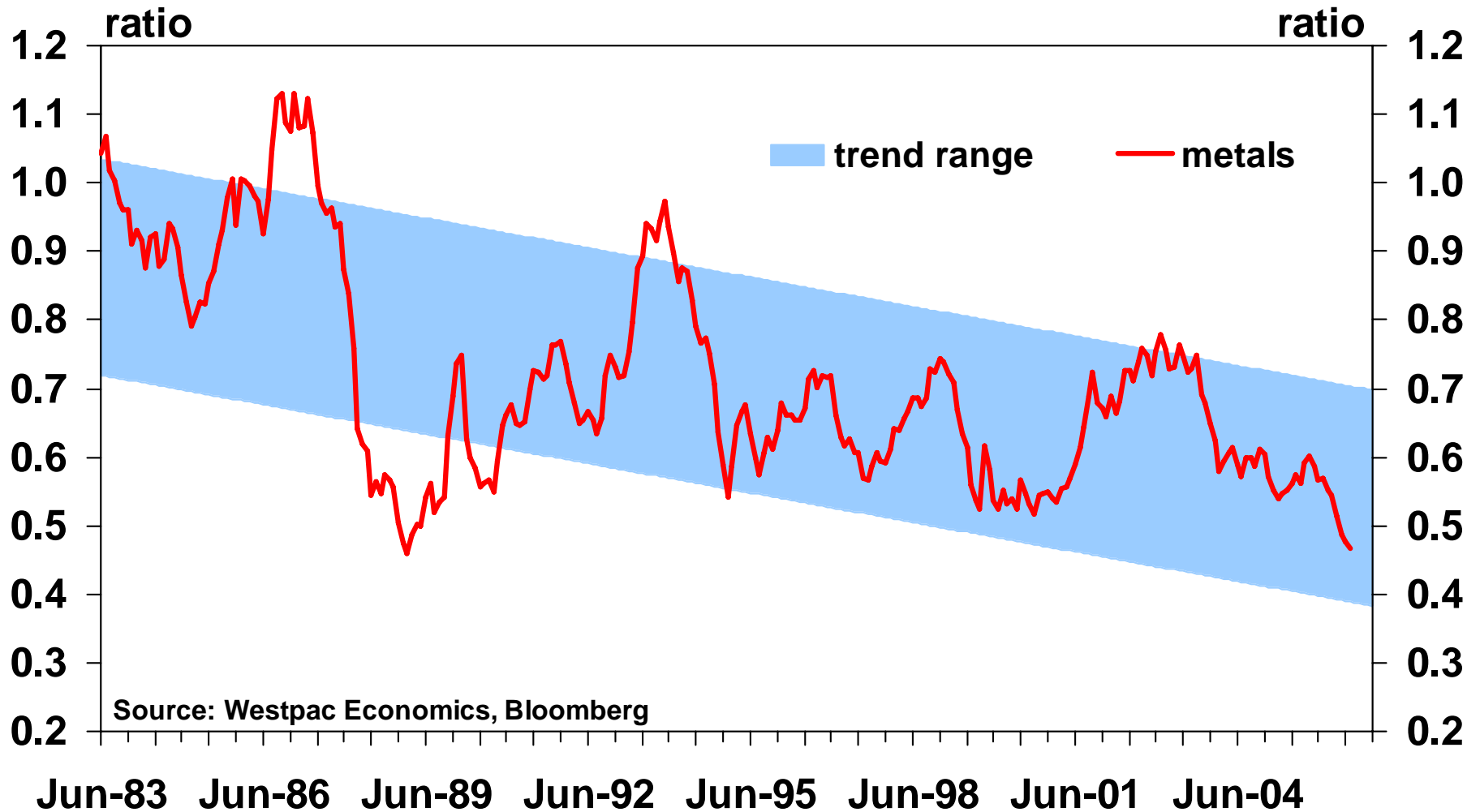
# Passenger cars & level of development



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# Gold continues to underperform

# In 2006, gold is still “relatively” cheap

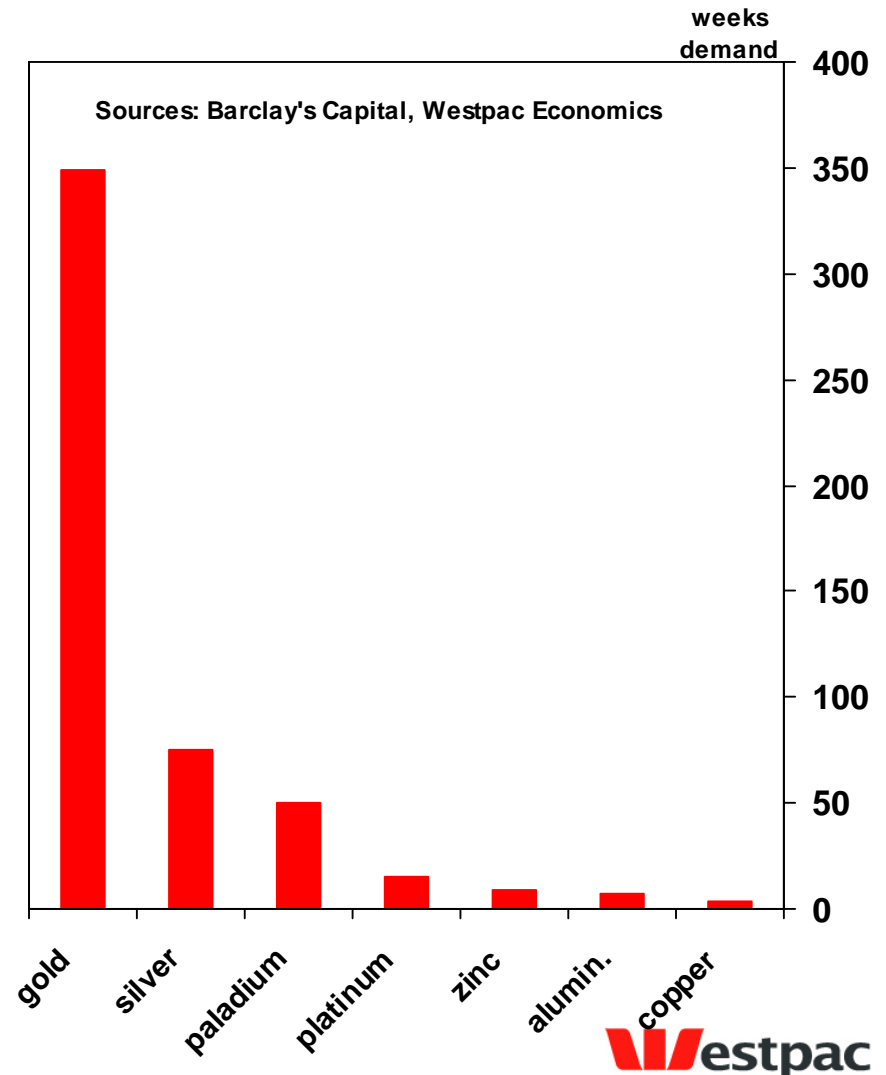
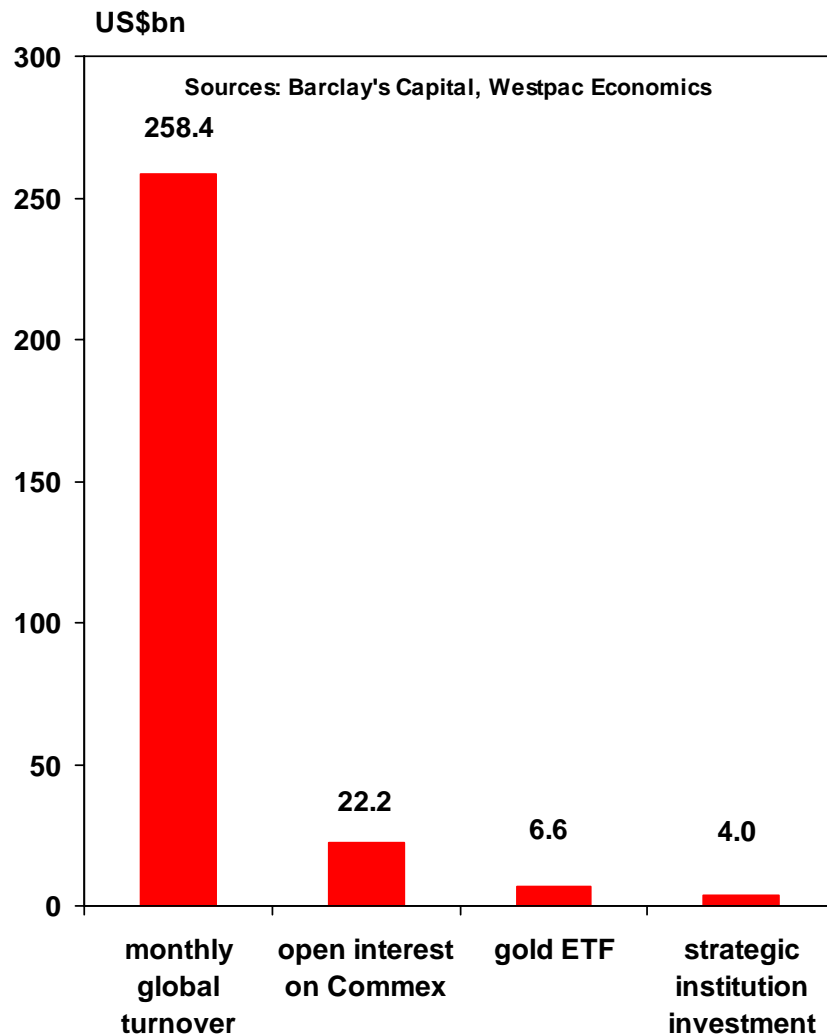


Source: Westpac Economics, Bloomberg



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# Gold remains in excess supply

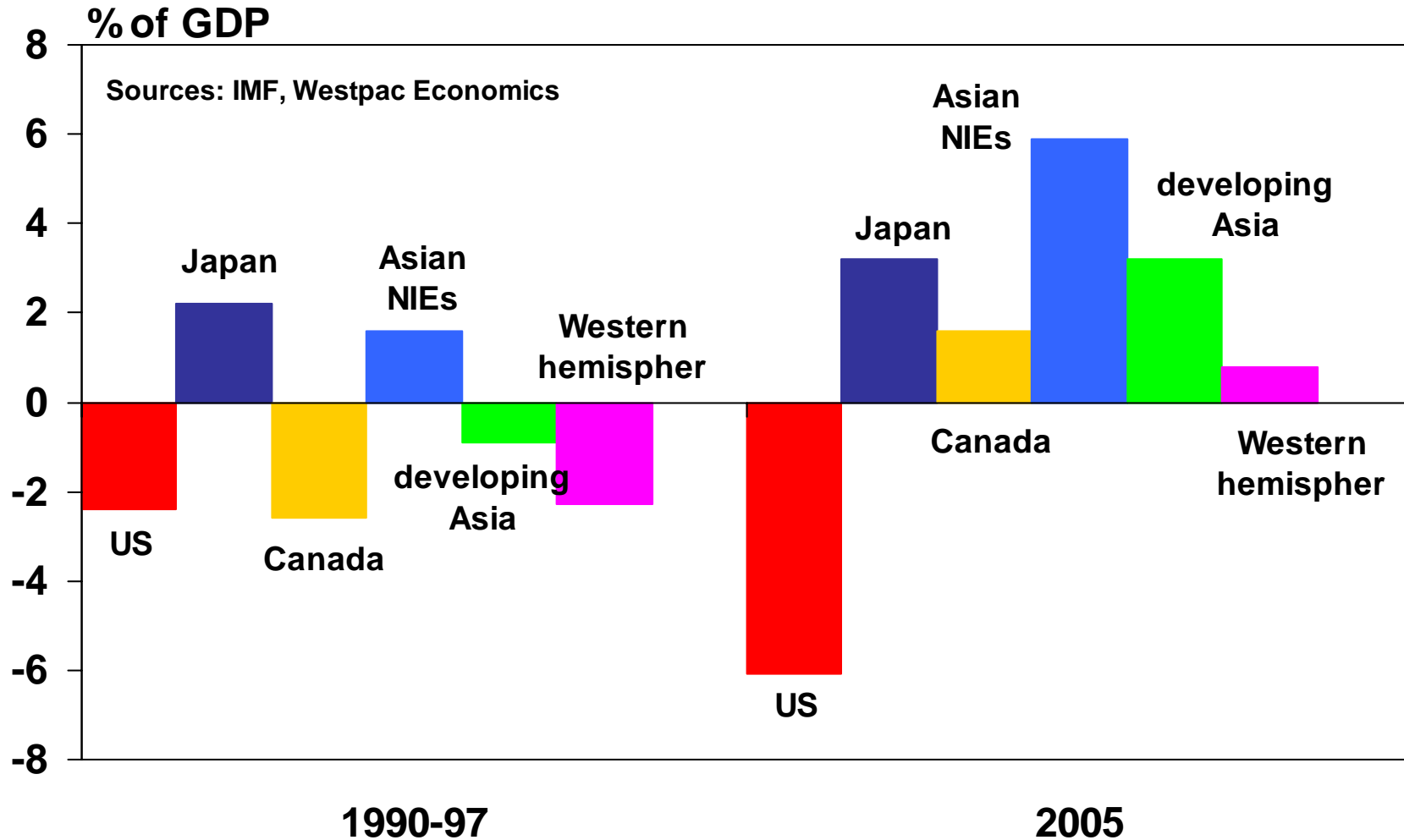


# 2006 the peak, recovery to start in 2008

# Current forecasts – August 2006

<b>annual averages</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
crude oil (USD/bbl)	57	70	66	50
gold (USD/oz)	448	618	653	580
copper (USD/t)	3593	6718	4775	3000
aluminium (USD/t)	1904	2526	2175	2000
nickel (USD/t)	14699	20166	14100	11000
zinc (USD/t)	1388	2976	3025	2118
lead (USD/t)	959	1082	875	700
base metals index	135	210	171	131
all commodities	149	185	168	153

# Net national savings positions



# Executive Summary – exchange rates

## G3

USD set to weaken on a broad basis

JPY will strengthen throughout the policy normalisation phase

EUR will benefit as USD counterpoint, and from higher interest rates

## Asia-Pacific

AUD looks set to range trade around mid 70¢ mark, TWI to decline

NZD is our least favoured major currency

CNY, MYR to appreciate against the USD but lag flexible neighbours

## Other

GBP, CHF, CAD to reflect USD downtrend thru their respective blocs

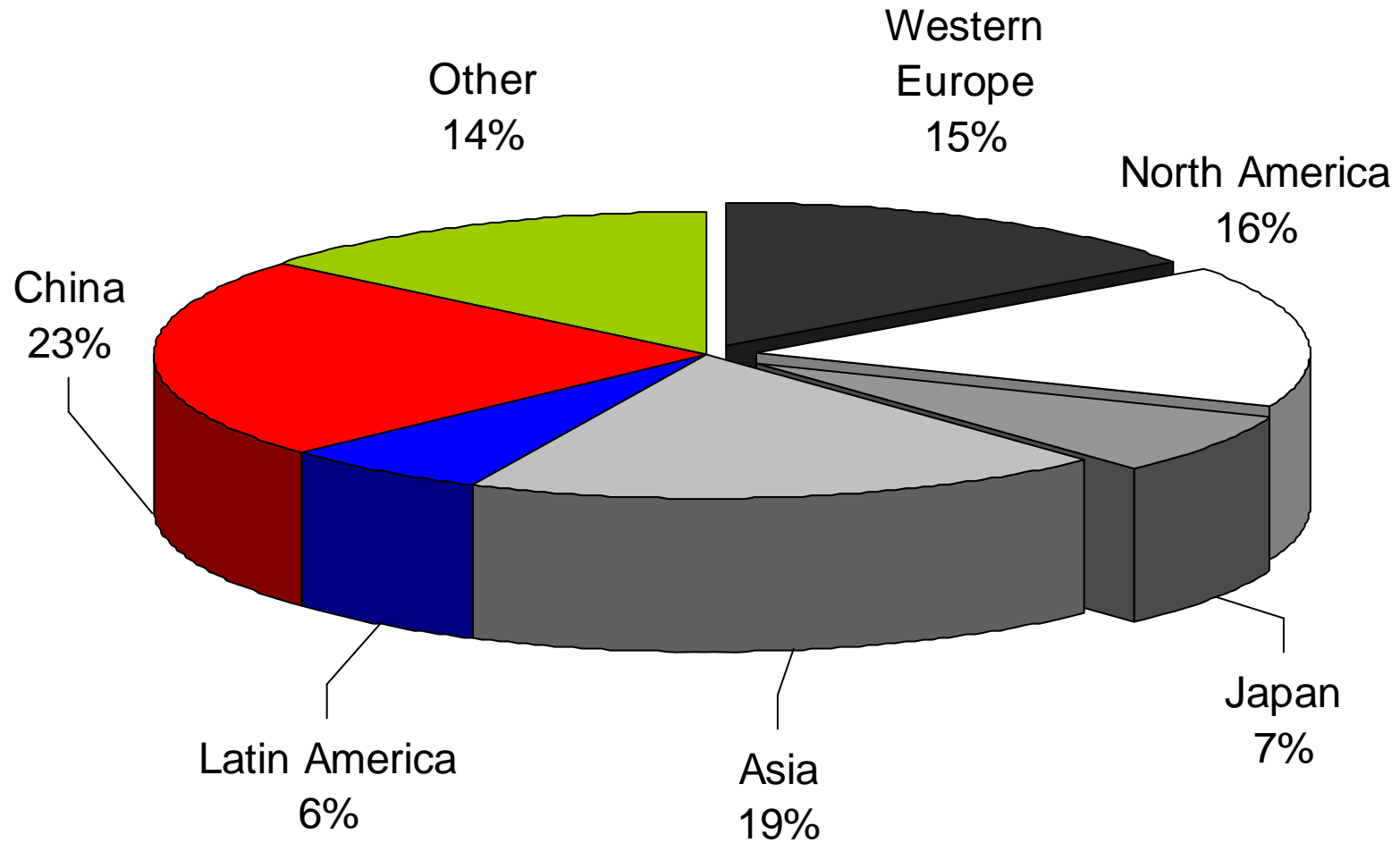
# Time to make hay

- **We are looking at a long bullish commodity cycle**
- **Resource rich nations have a once in a lifetime opportunity**
- **But the cycle will be volatile**
- **Rising incomes and ToT will also lead to a higher than average currency**
- **When it ends, significant risks for the economy**
- **So make hay while the sun shines**

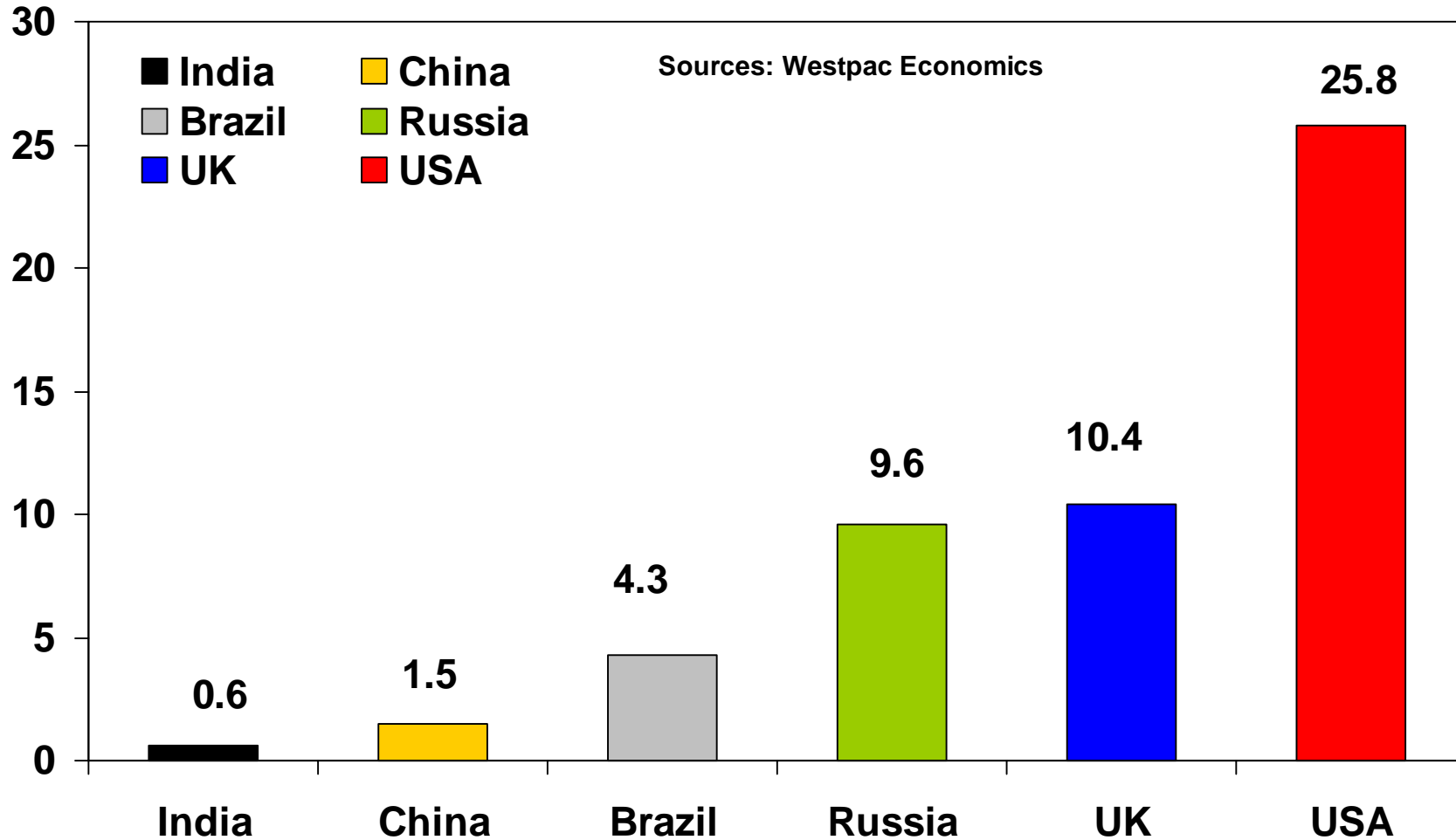
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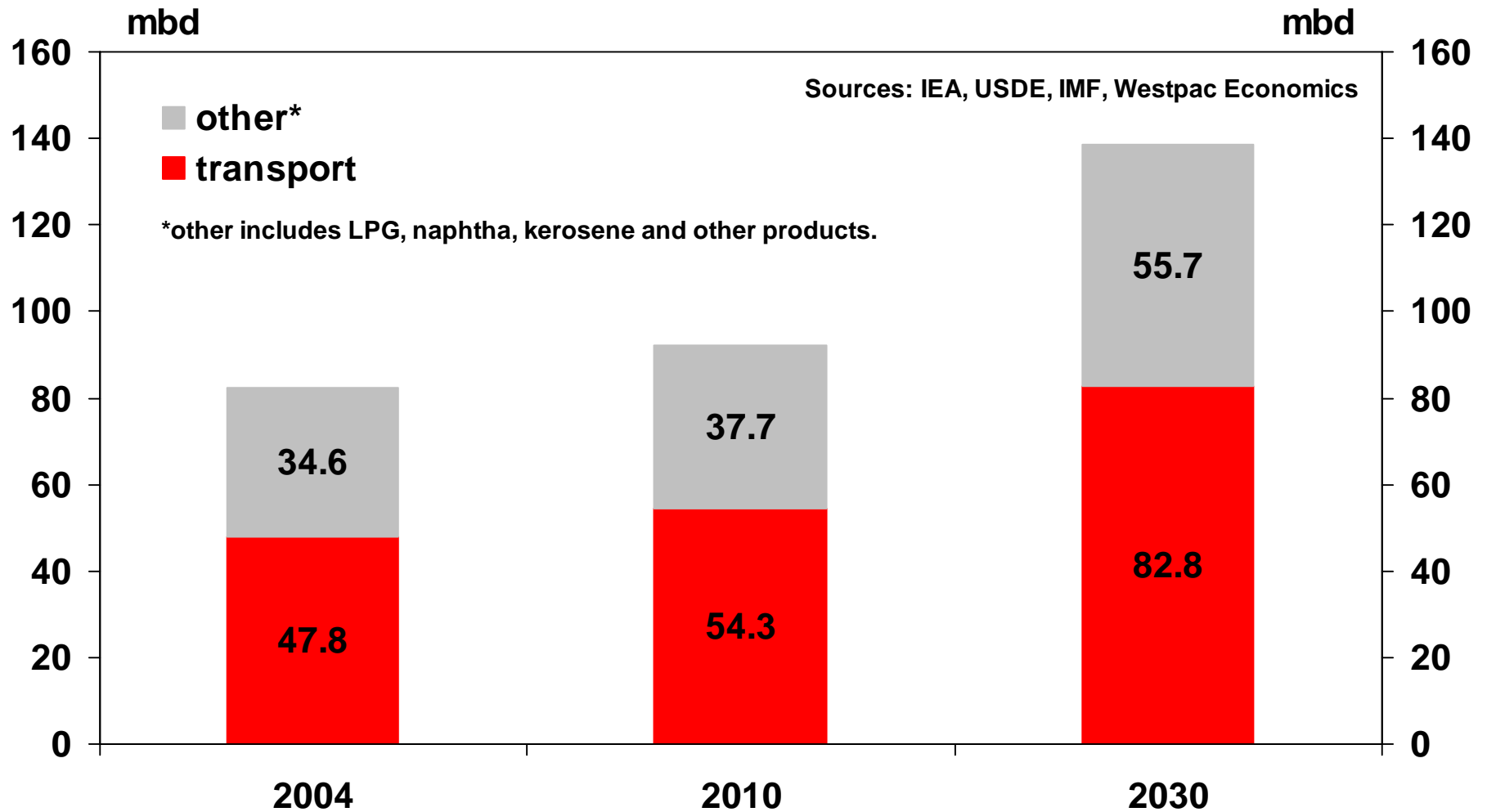
# Copper demand by region



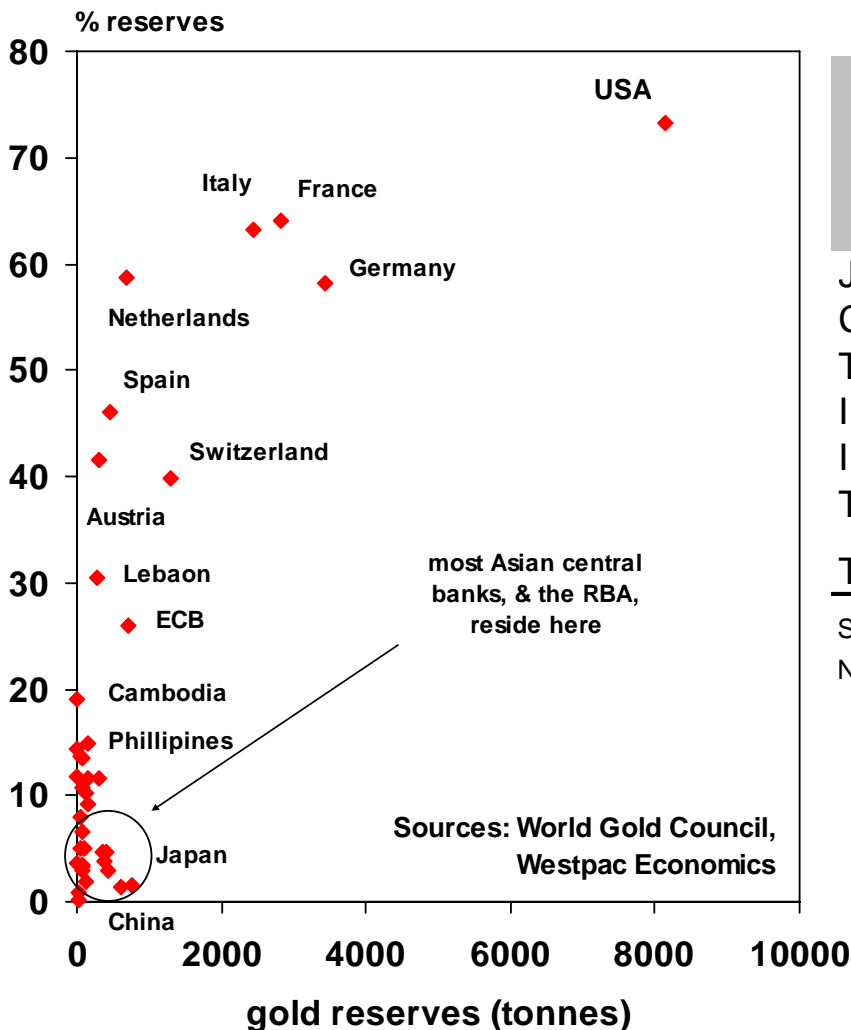
# Per capita oil consumption



# Transport represents lion share of growth



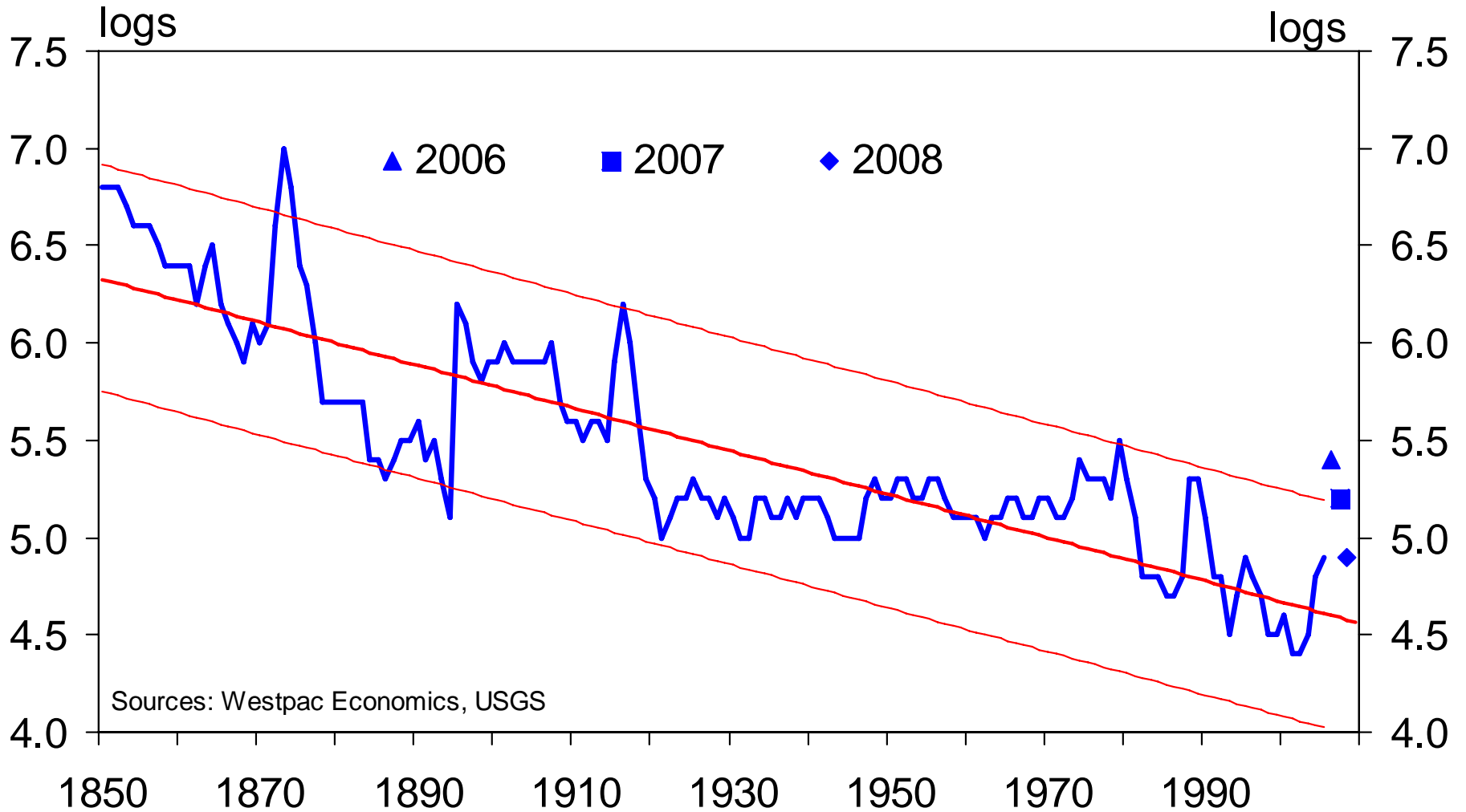
# Asian CB holdings of gold are small



	tonnes of gold in reserves	% of reserves	tonnes needed to reach 10%
Japan	765.2	2.0	4380.8
China	600.0	1.1	4107.5
Taiwan	423.3	2.4	1170.8
India	657.7	3.6	528.5
Indonesia	96.5	4.1	105.3
Thailand	84.0	2.4	220.2
<b>Total</b>	<b>2626.7</b>		<b>10513.1</b>

Sources: World Gold Council, Westpac Economics  
 Note: calculations are based on a gold price of US\$500/oz

# Metal prices holding above longer-run trend

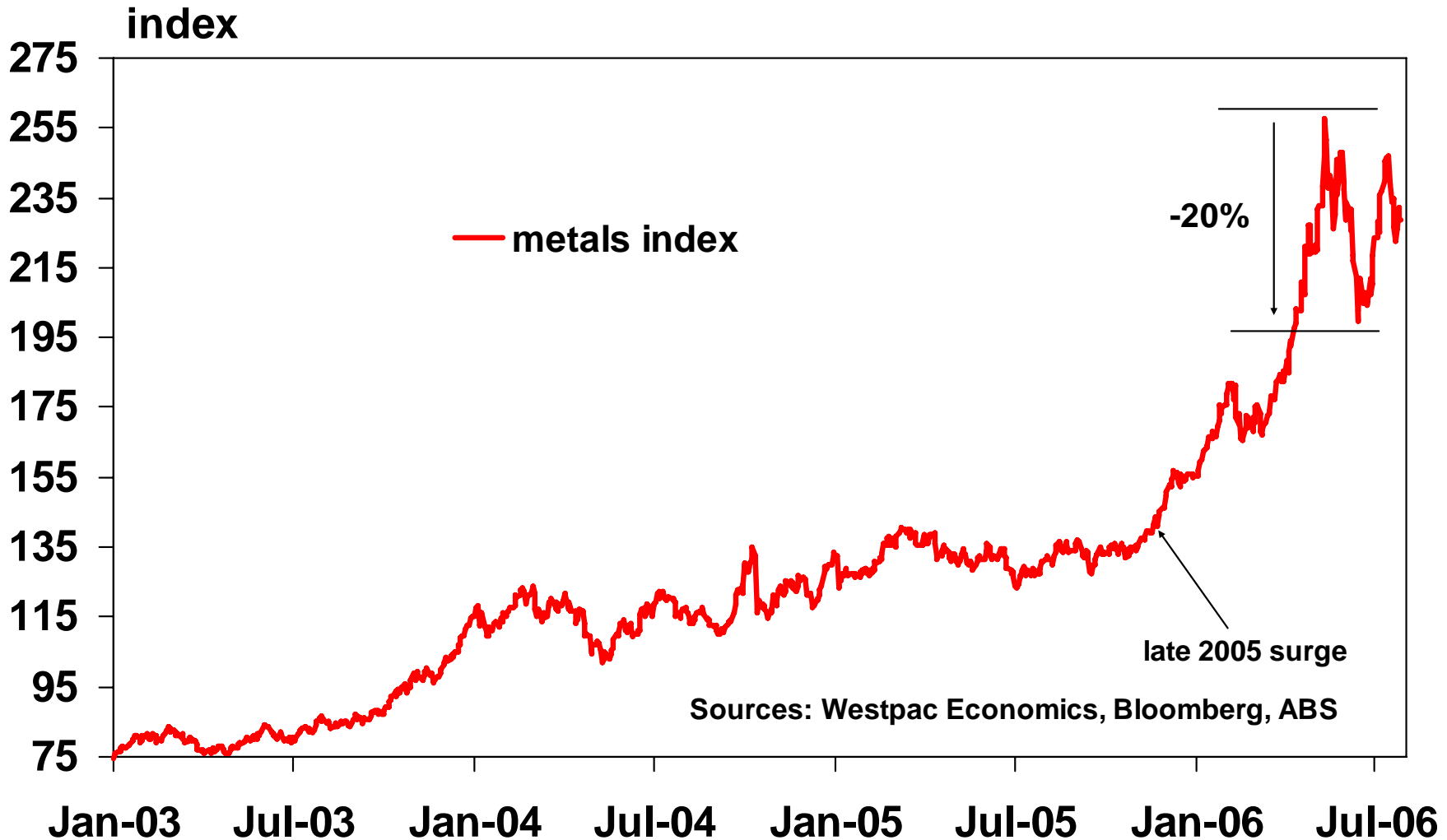


Sources: Westpac Economics, USGS

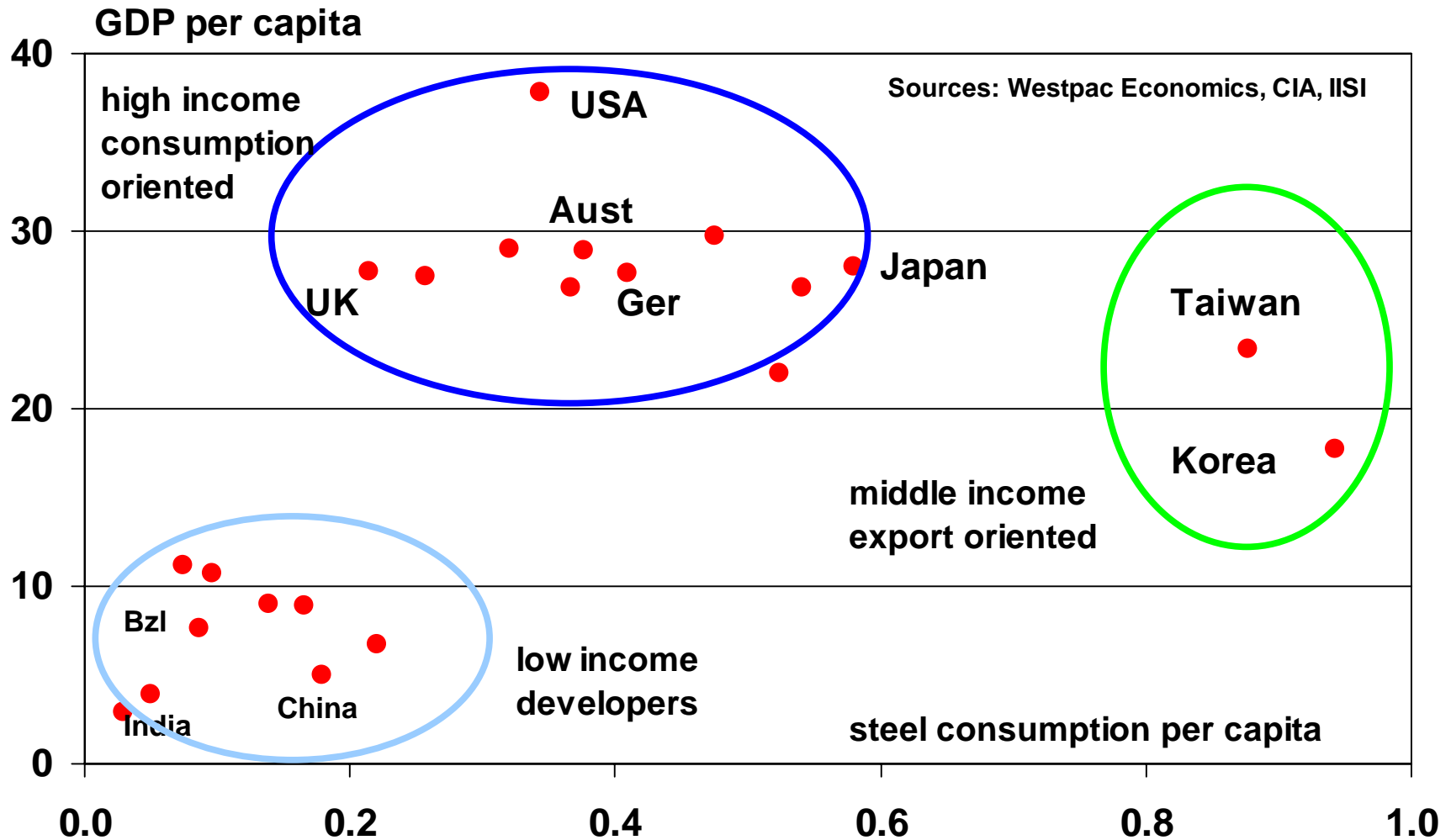


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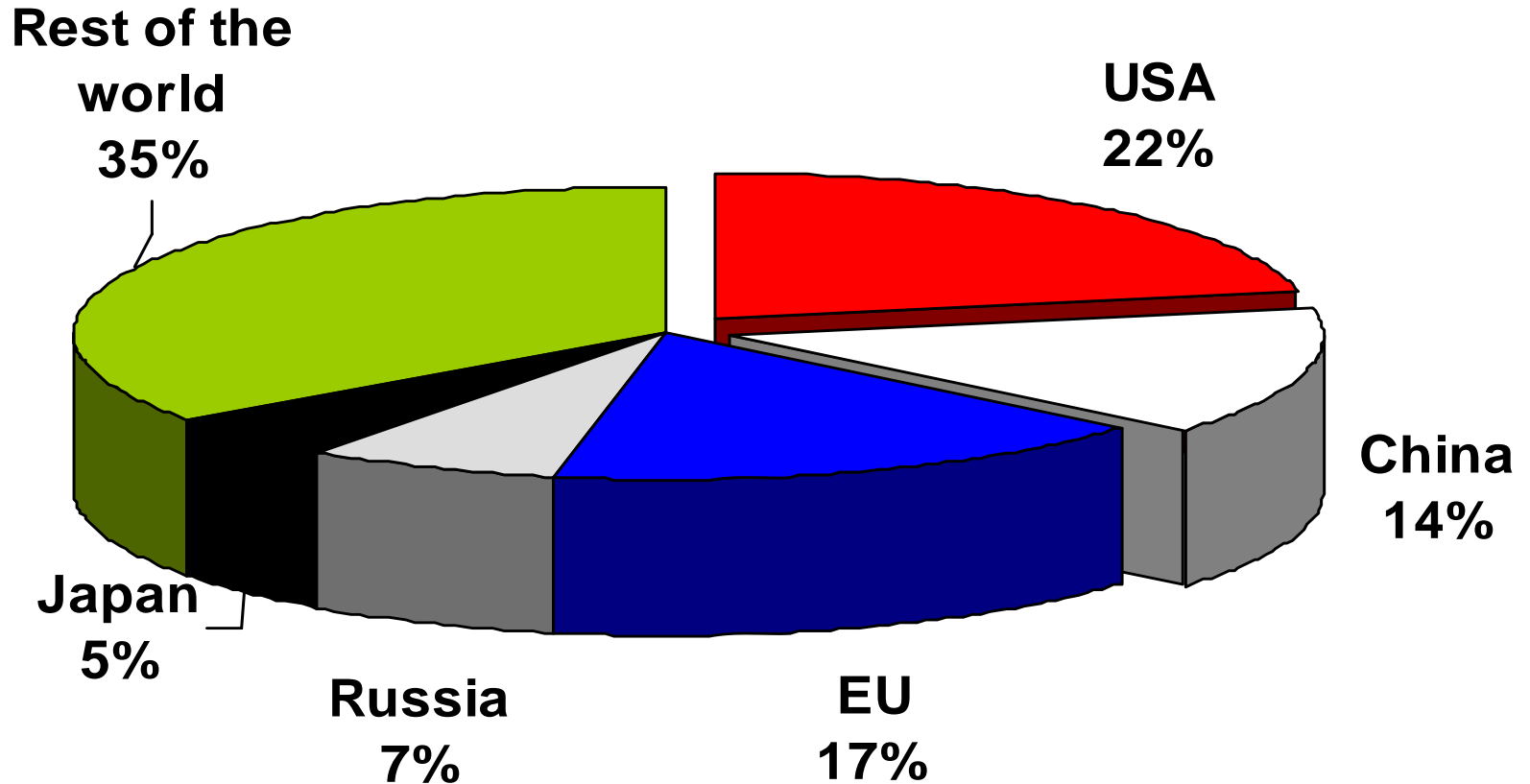
# Commodity prices, have we passed the peak?



# Steel consumption & level of development

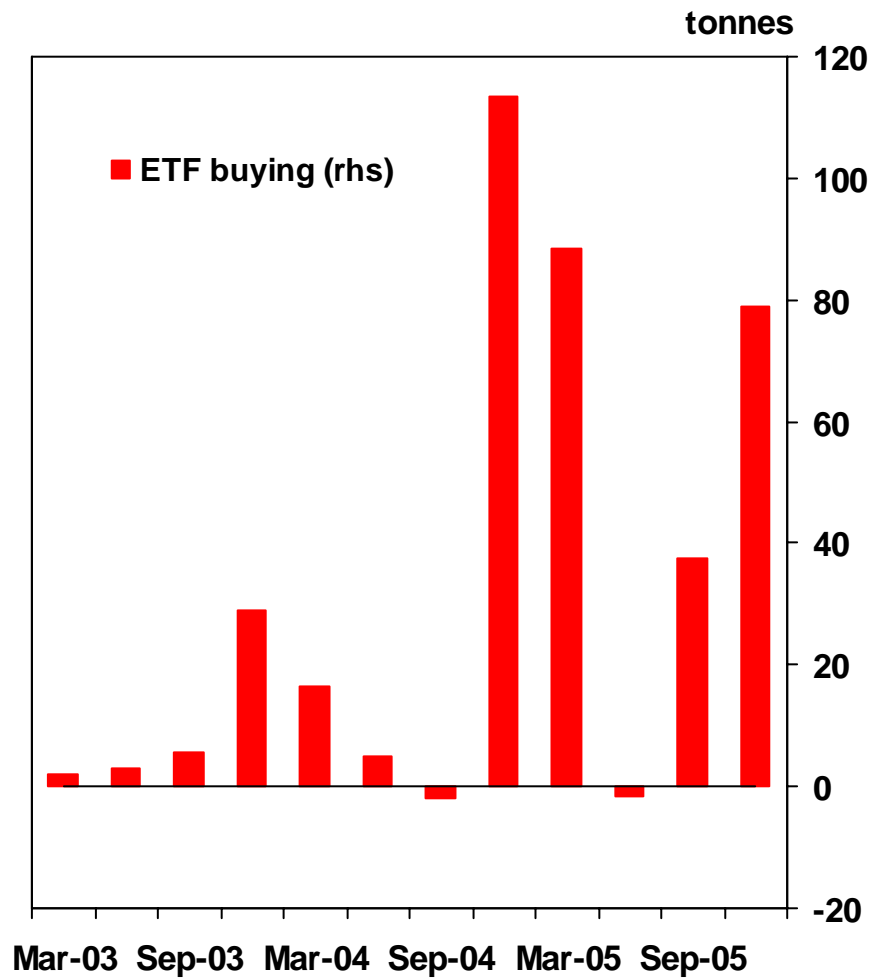
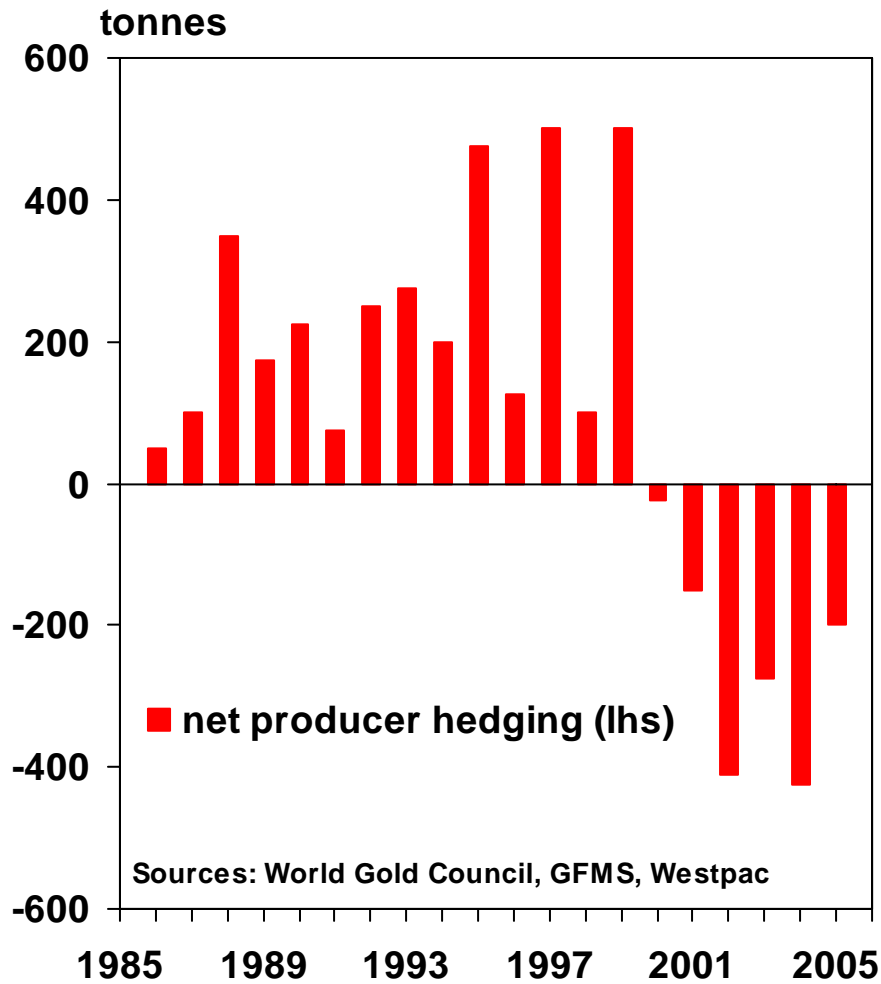


# Total primary energy consumption

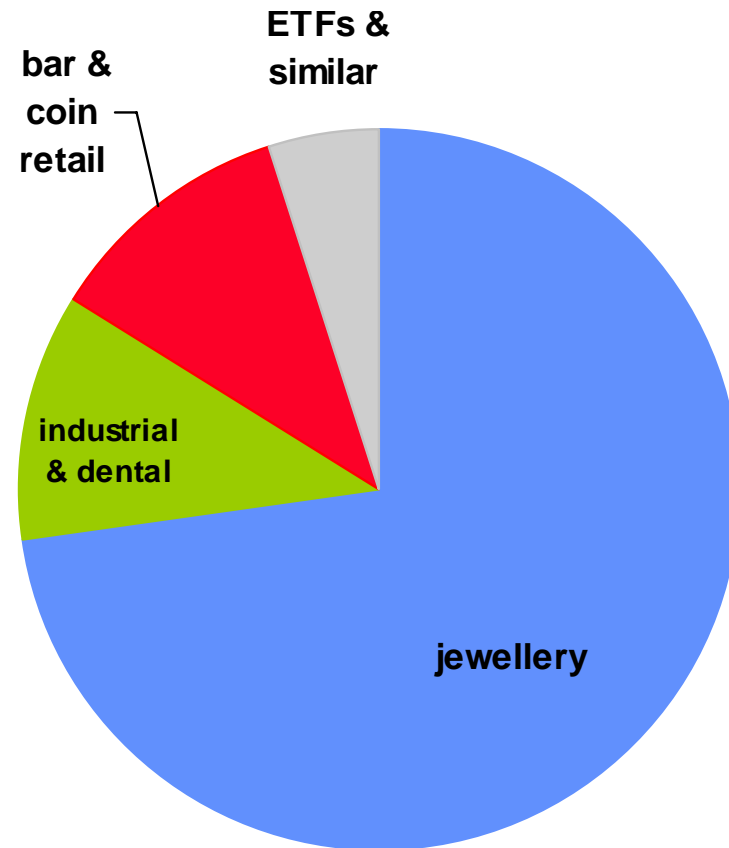
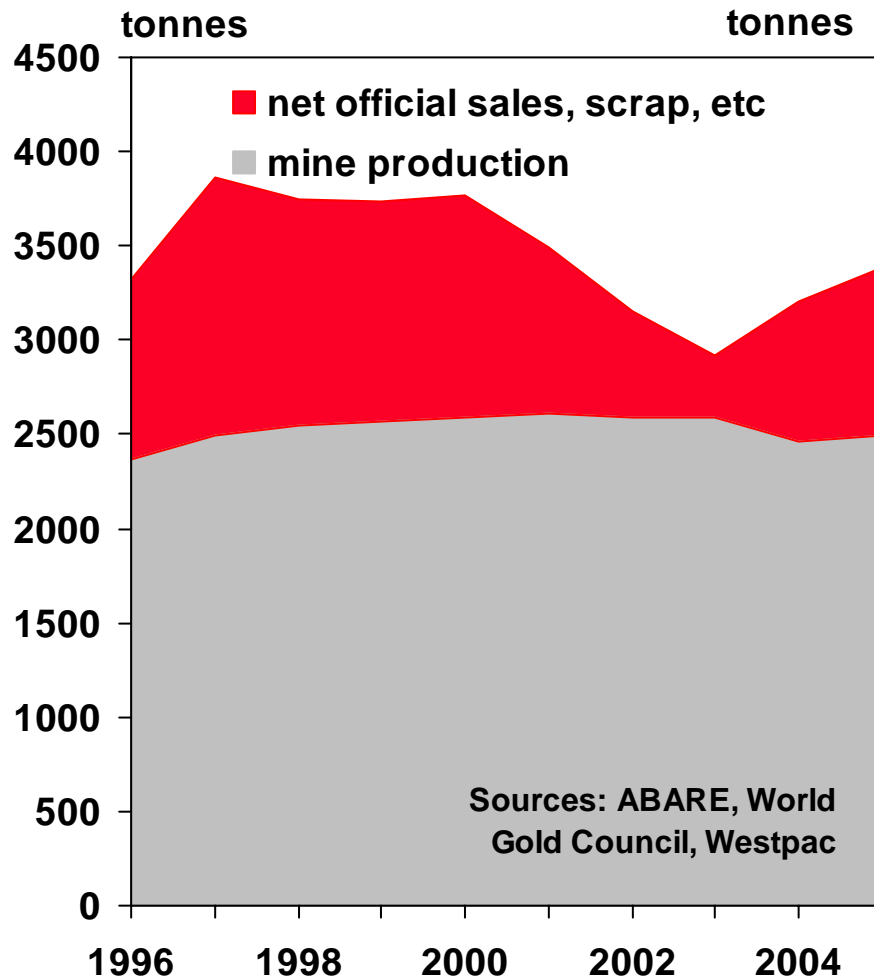


Sources: BP Statistical Review of World Energy  
2005, Westpac Economics

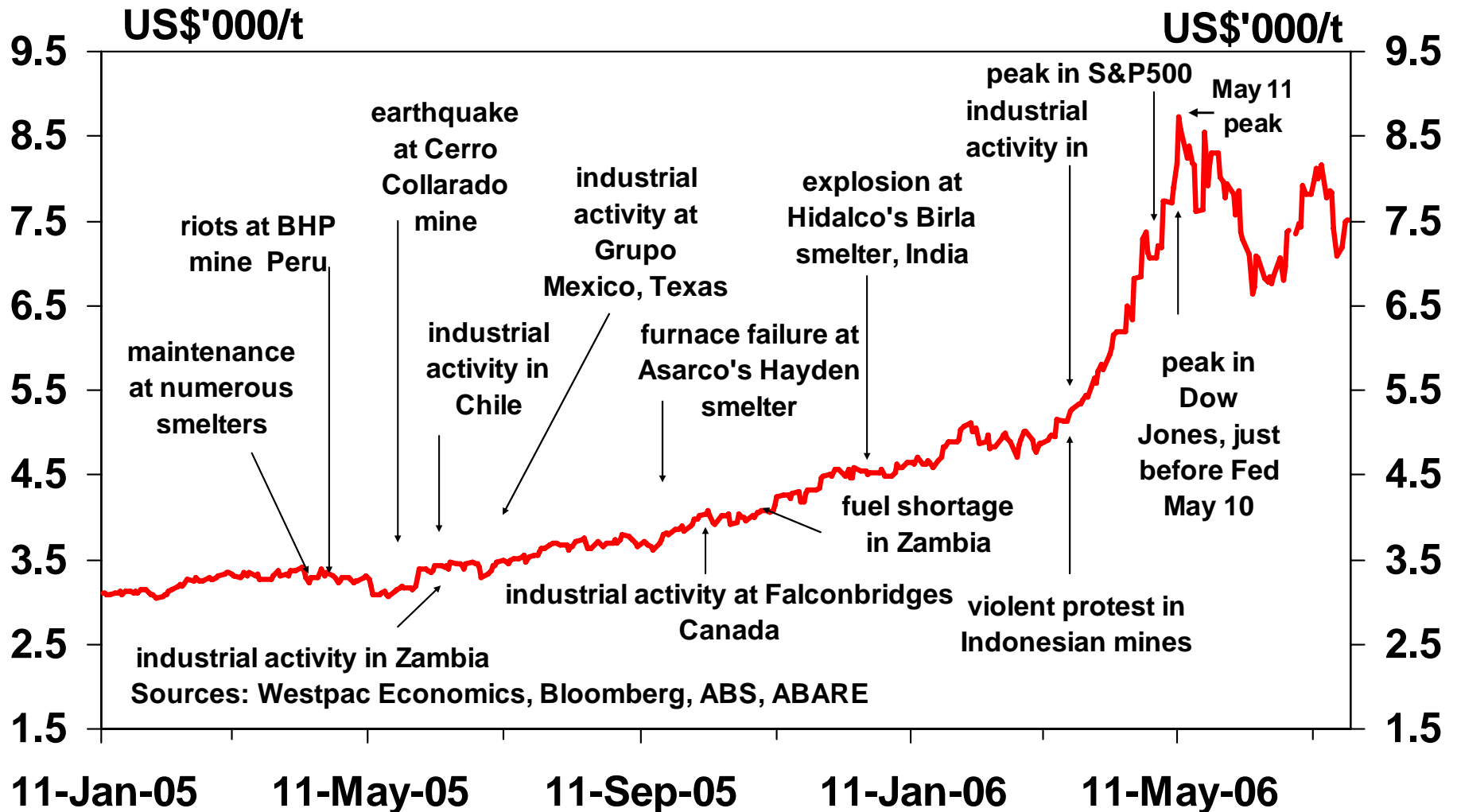
# Gold producers de-hedging as ETF buy



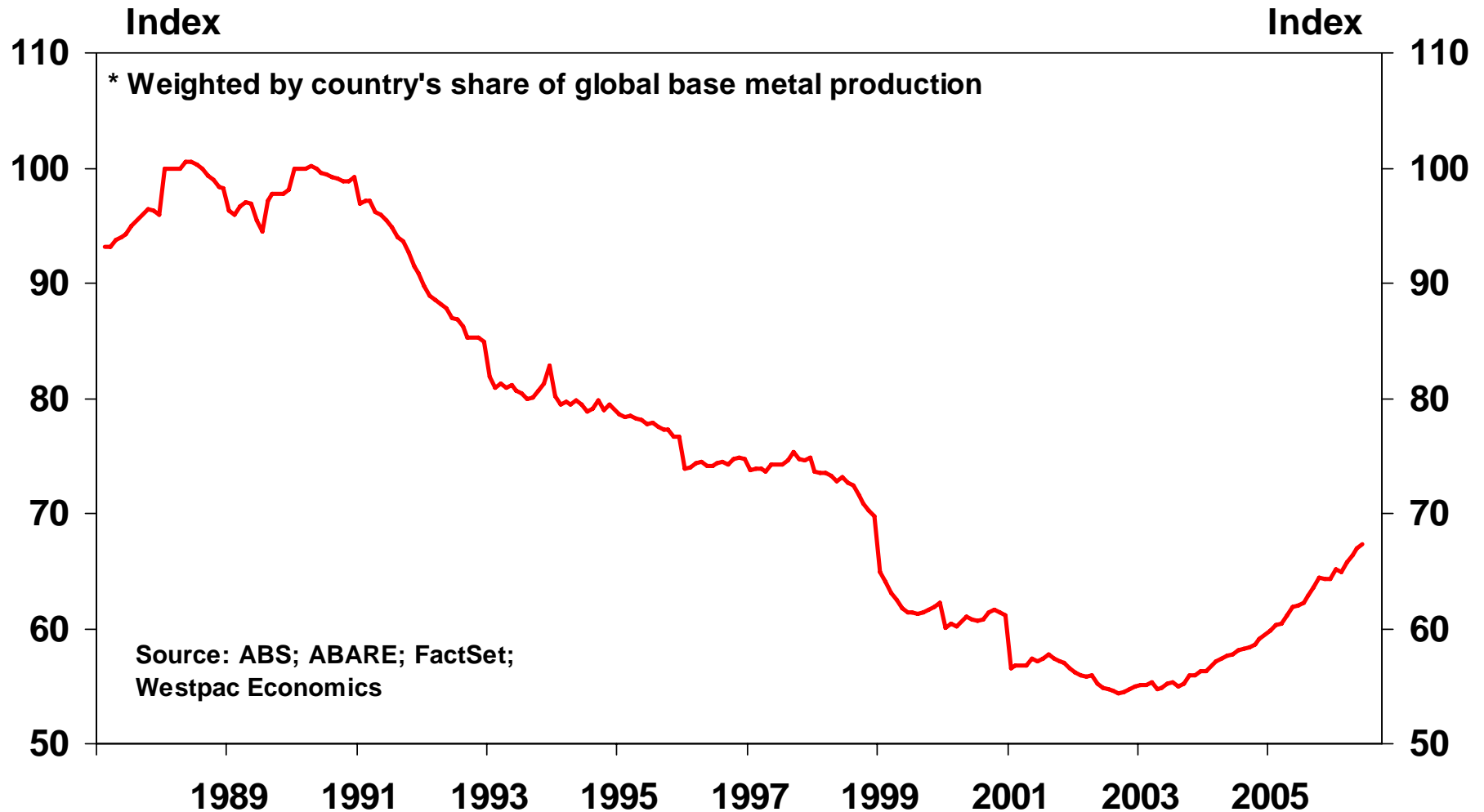
# Gold demand – source and application



# Supply problems boosting copper prices



# Westpac's global mining labour index\*



# Major 20 year shifts in the share of global output

	time period	share* yr 1	share* yr 20	ppt shift	region growth^	world growth^^
<b>China</b>	1981 to 2001	6.1	12.3	6.2	6.7	3.1
<b>W. Europe</b>	1850 to 1870	28.4	33.0	4.6	1.7	0.9
<b>USA</b>	1894 to 1914	13.3	18.9	5.6	3.9	2.1
	1930 to 1950	22.4	27.3	4.9	2.8	1.8
<b>Japan</b>	1954 to 1974	3.4	7.7	4.3	9.3	4.8
<b>Asia ex#</b>	1981 to 2001	9.6	13.2	3.4	4.7	3.1

Sources: Maddison (2001), Westpac Economics. \* start and finish points in specified region's share of global output over the specified twenty year period. ^average rate of regional growth, specified time period. ^^average growth rate of world growth, specified time period. # Asia ex Japan, China and India.