

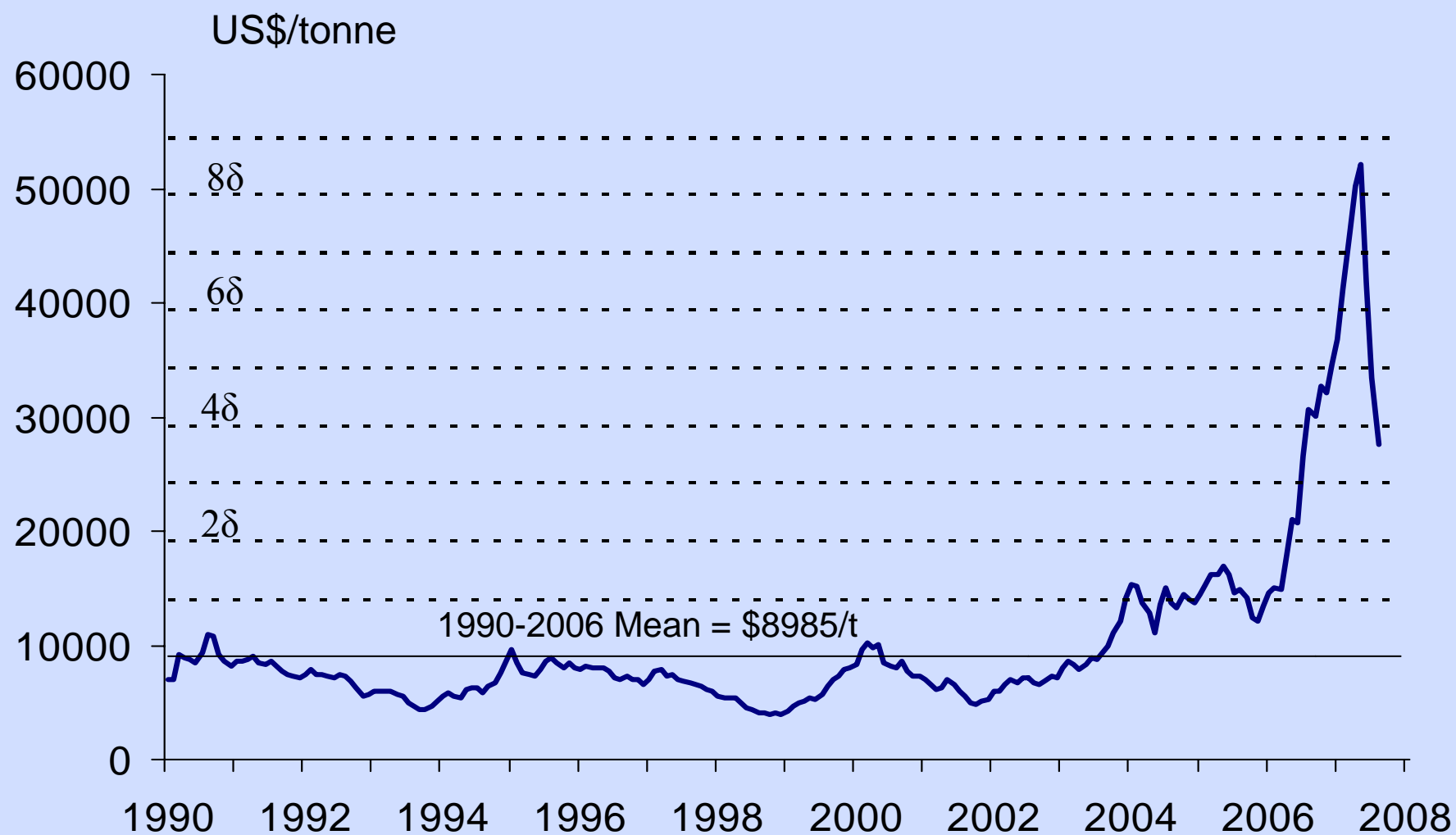


# How has investment interest in metals affected producers?

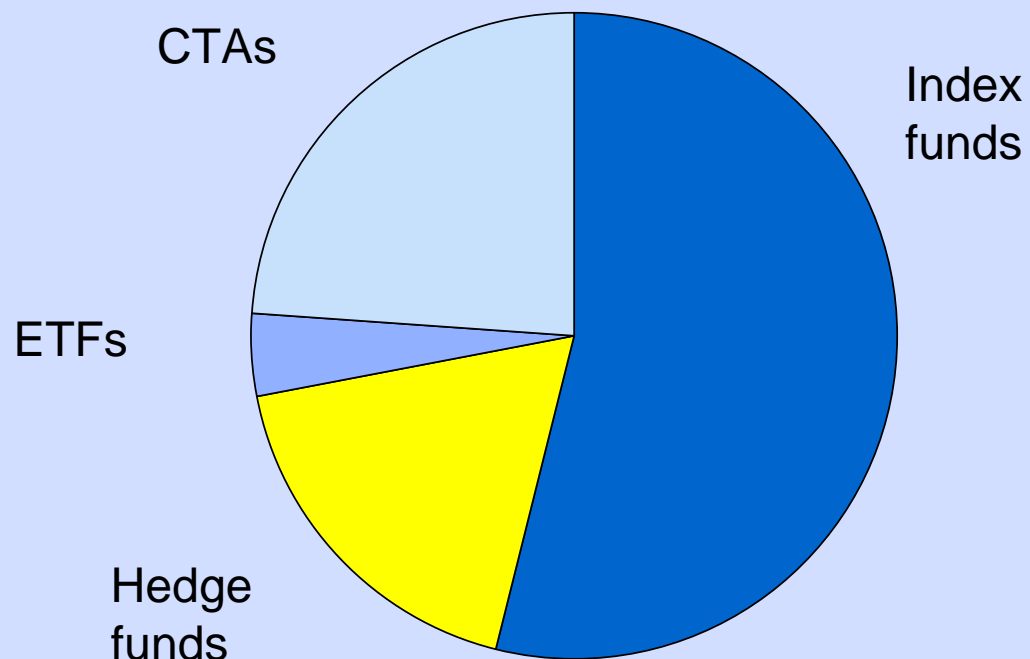
**David Humphreys**  
**Chief Economist**  
**Norilsk Nickel**

*Workshop on 'Successful speculation and investment in commodities and commodity-related instruments',  
Stockholm, 23<sup>rd</sup> October 2007*

# Nickel prices



# Commodity fund investment 2007



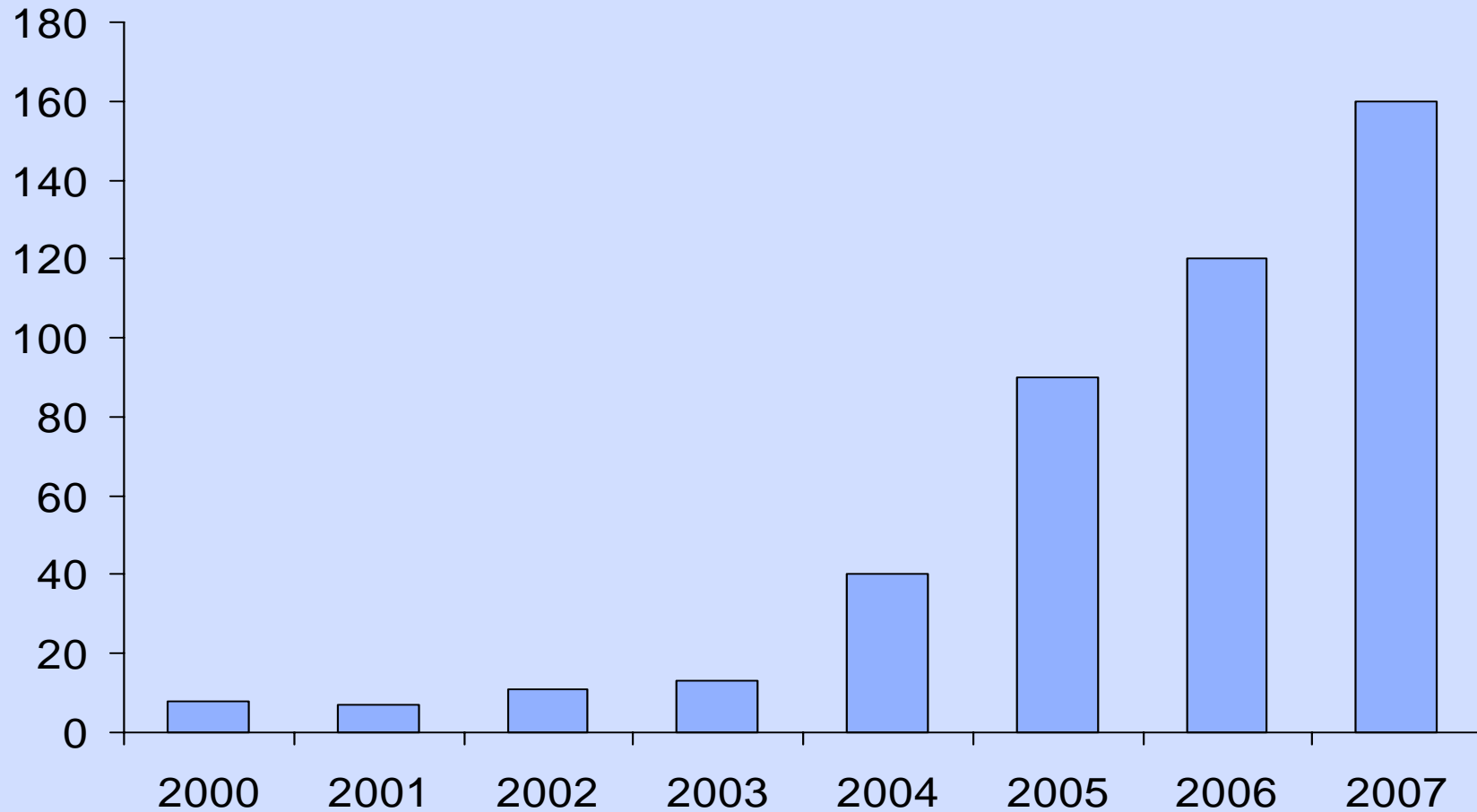
Total investment = \$300 bn

Source: Citigroup

# Growth of commodity index funds

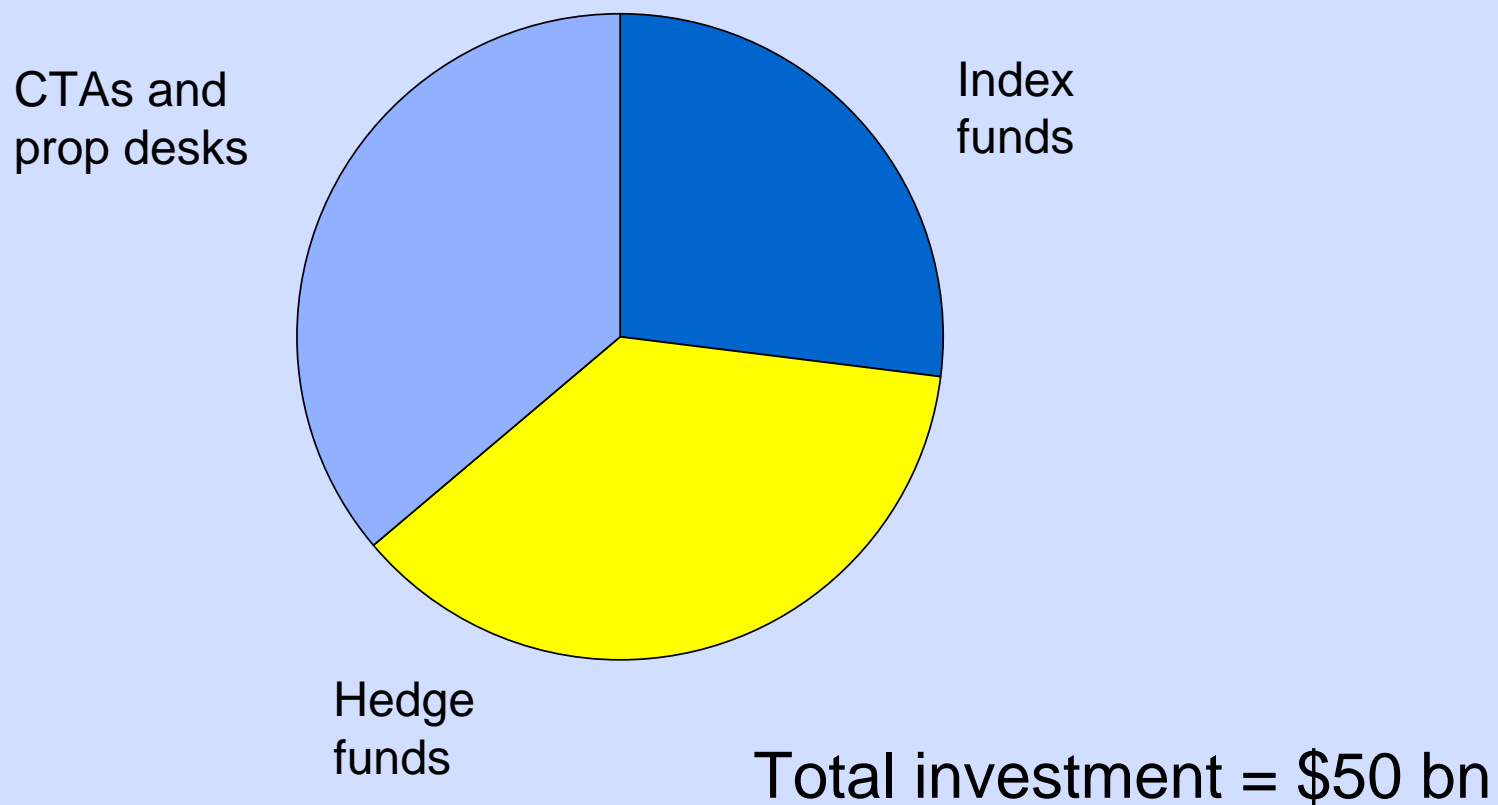


Estimated investments US\$ bn



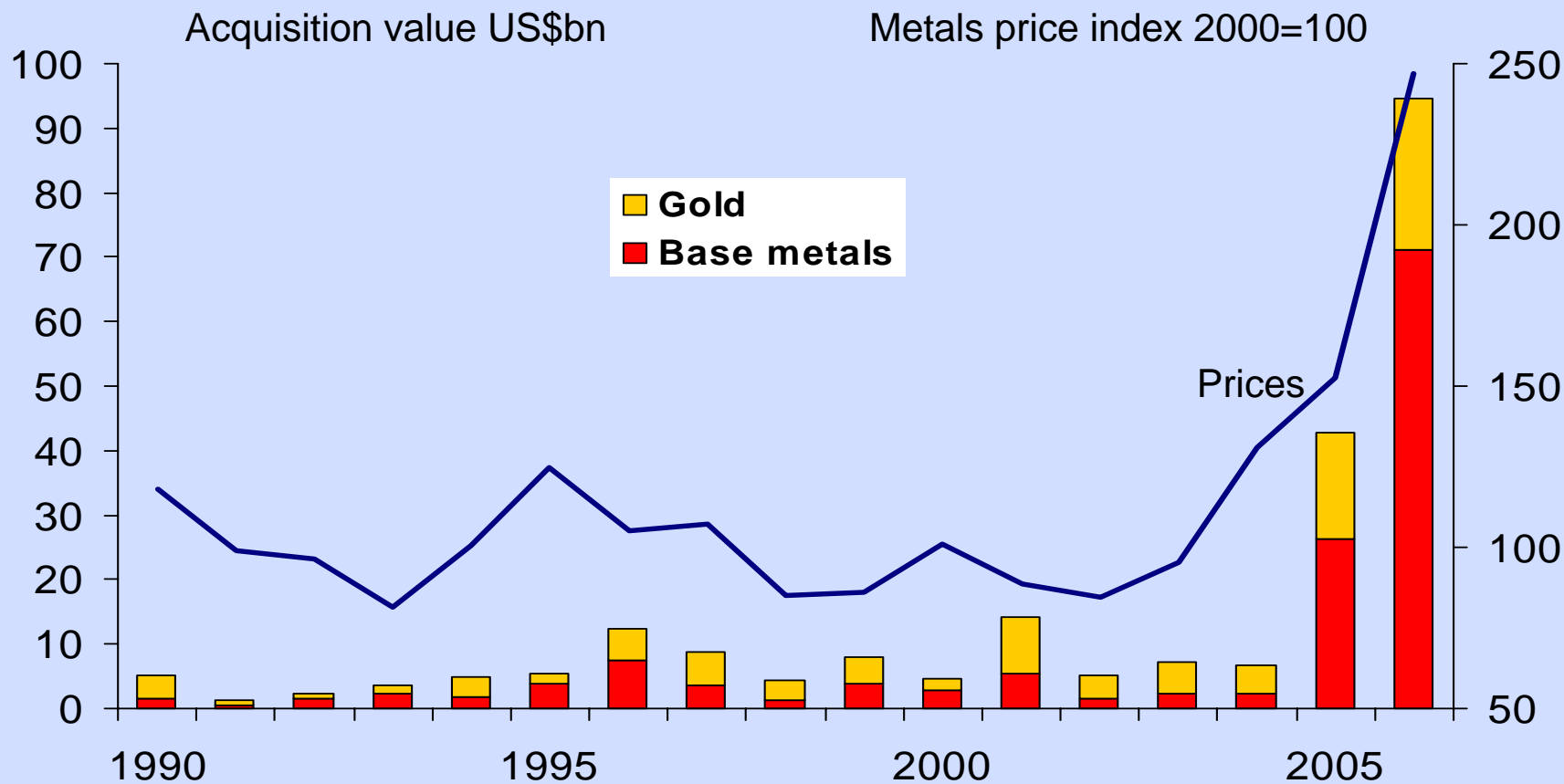
Source: Citigroup

# Investors in base metals 2007



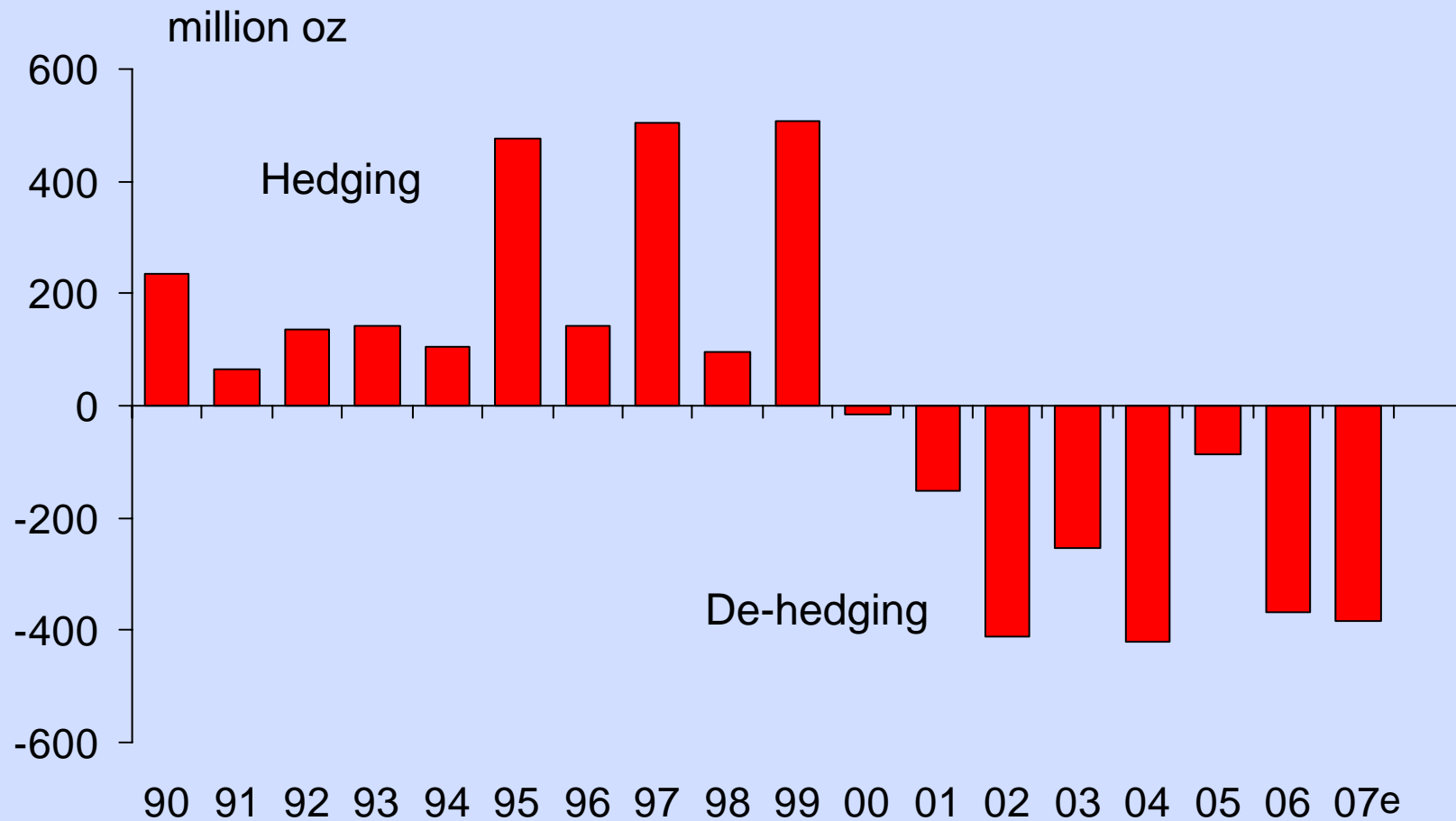
Source: Citigroup

# M&A activity in mining and metals



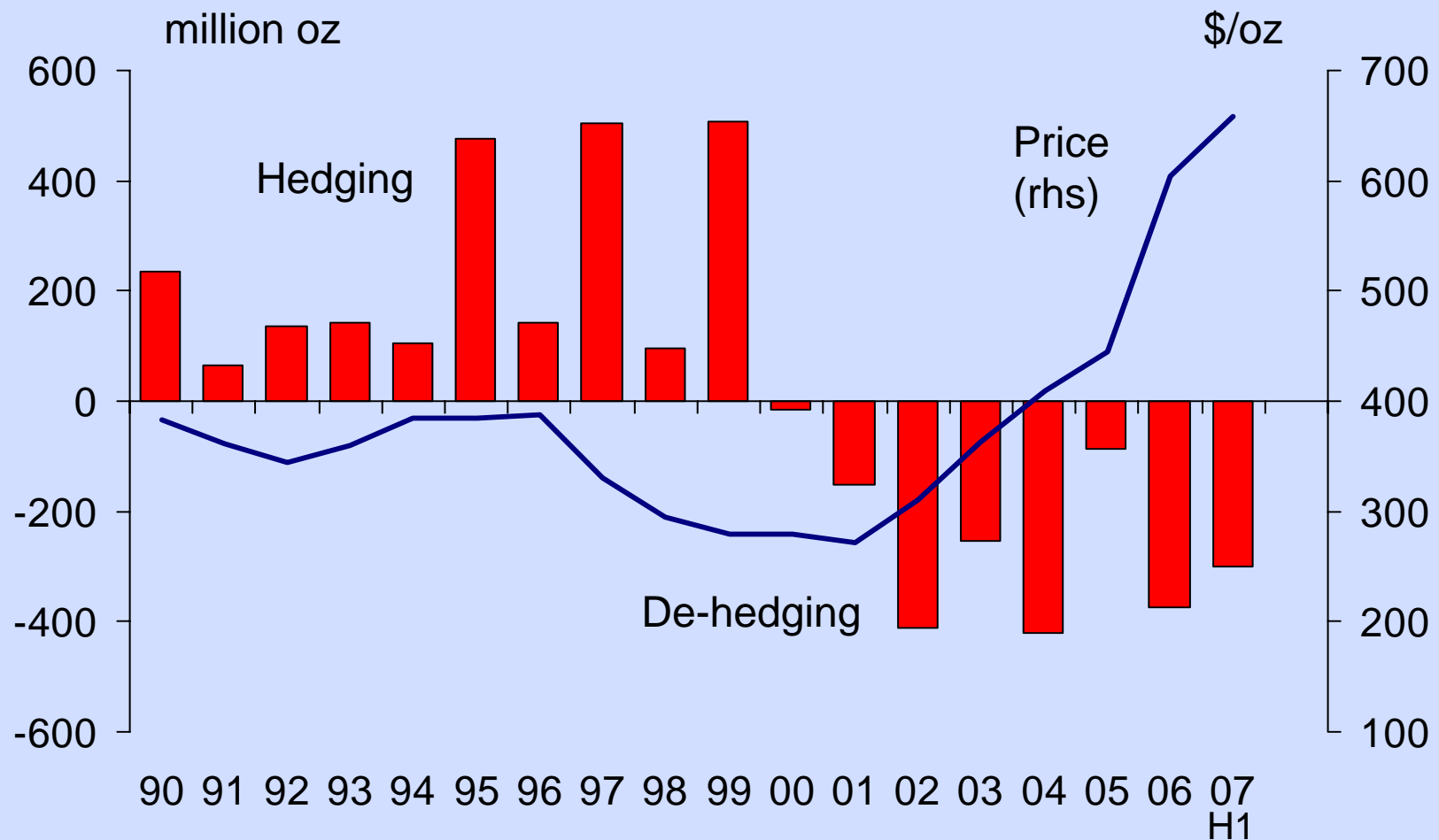
Sources: Metals Economics Group, The Economist

# Gold: net producer hedging



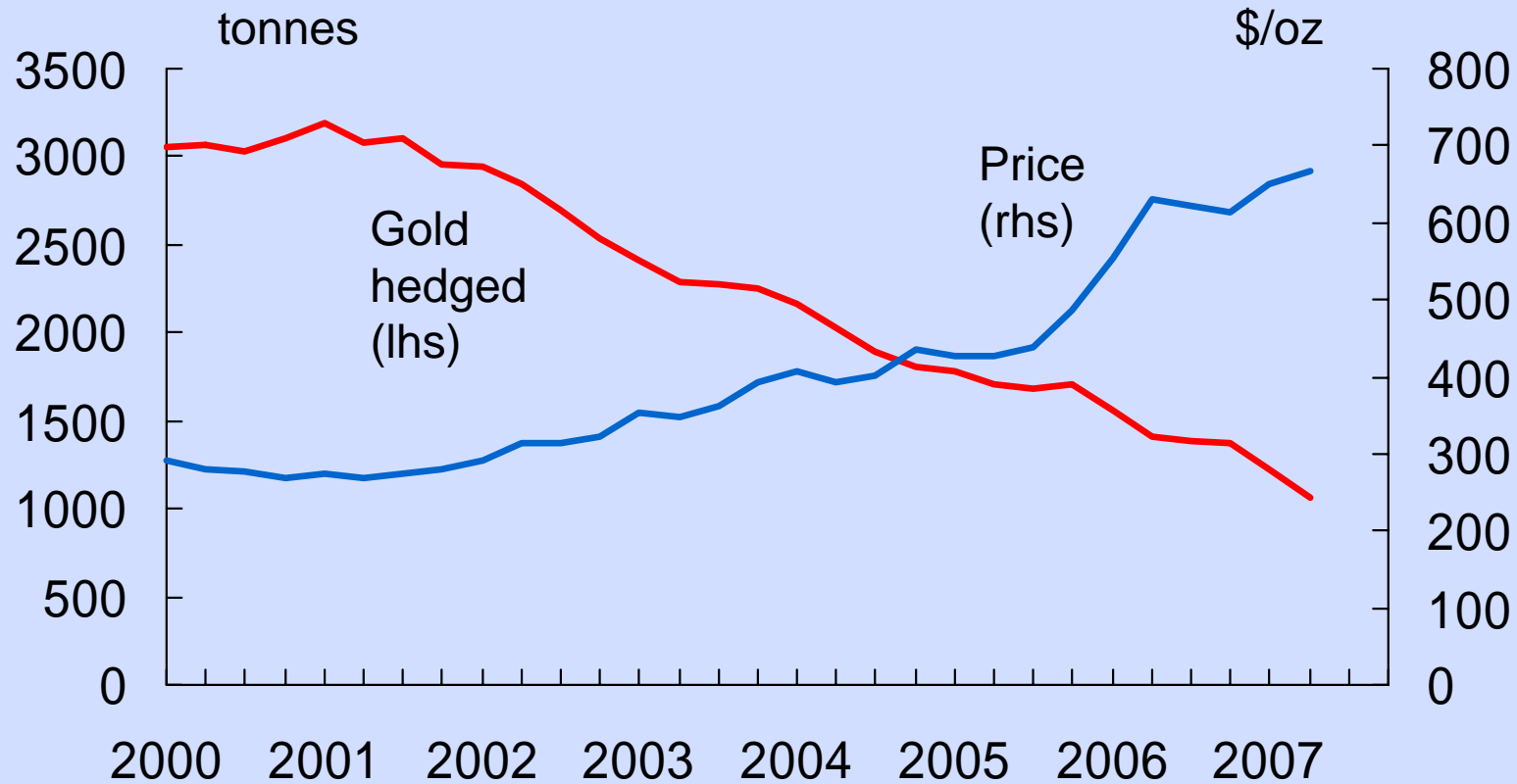
Source: GFMS

# Gold: net producer hedging



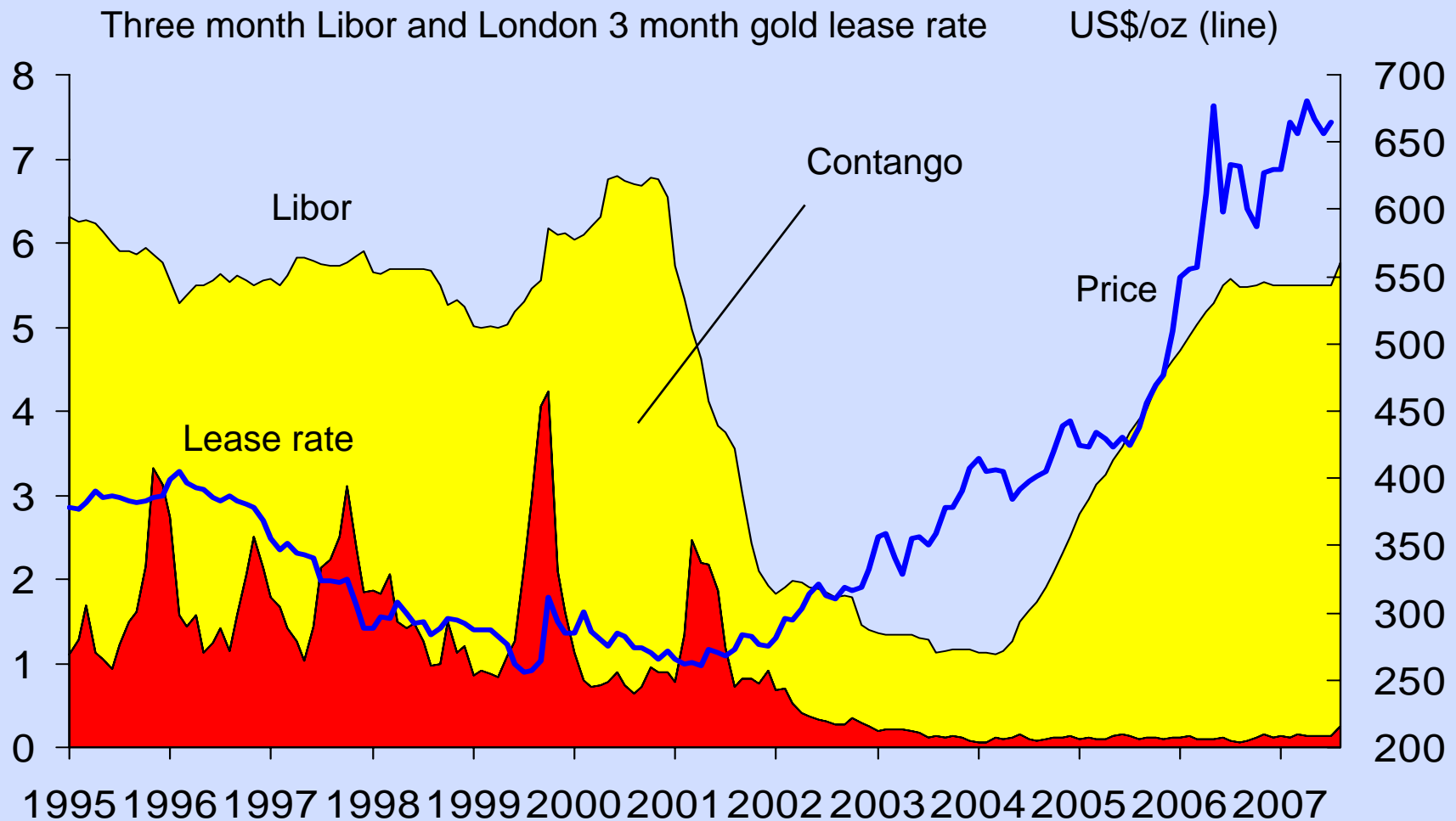
Source: GFMS

# Total amount of producer gold hedged



Source GFMS

# Gold contango and gold price



# Long run prices



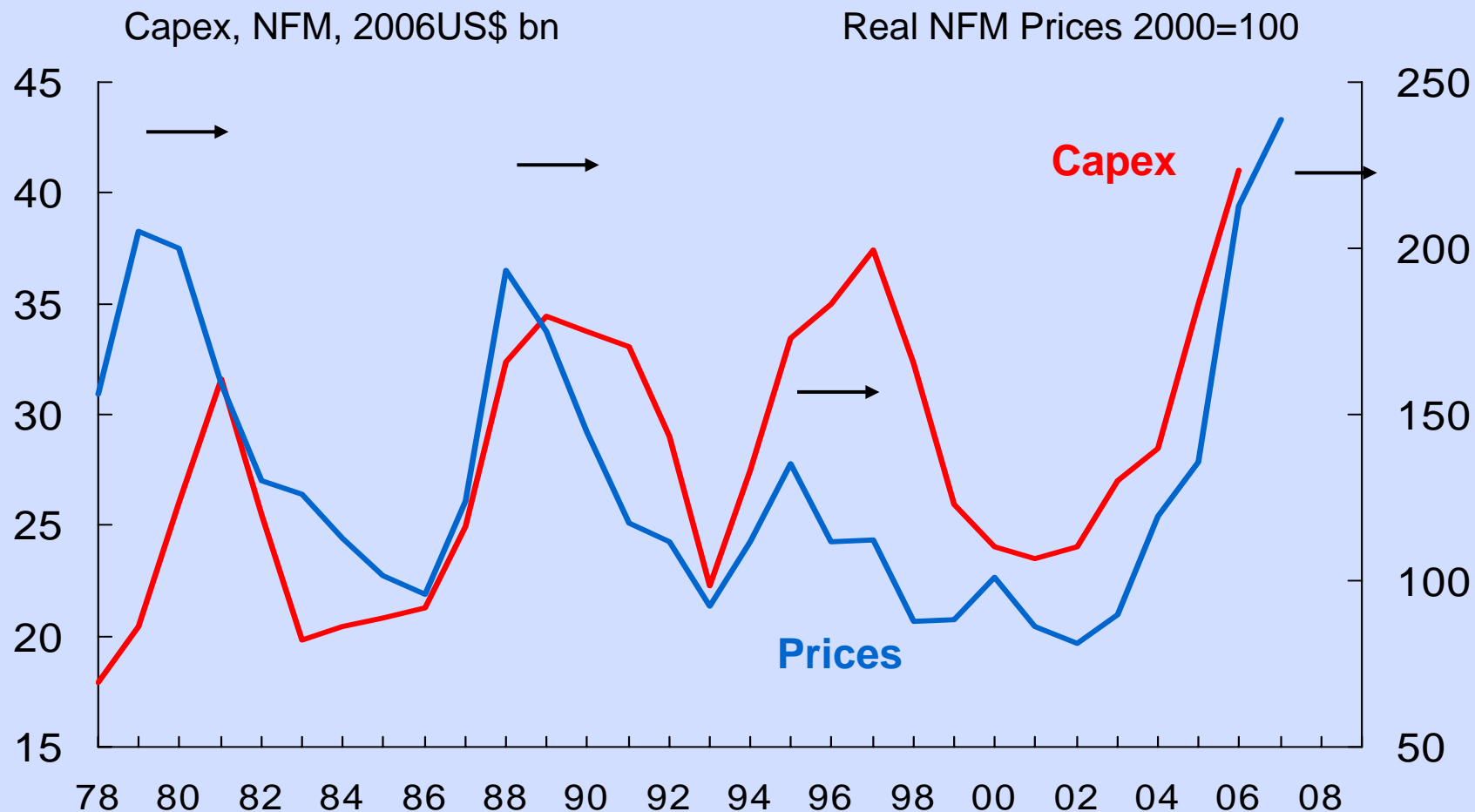
-- 2007 c/lb --

Company	Copper	Nickel
ABN-AMRO	140	600
Barclays Cap	204	862
BNP Paribas	159	590
Citigroup	145	600
Deutsche	150	660
Goldman Sachs	193	1043
J P Morgan	147	544
Macquarie	135	550
Merrill Lynch	181	794
UBS*	225/130	700/700

Source : Reuters, October 2007

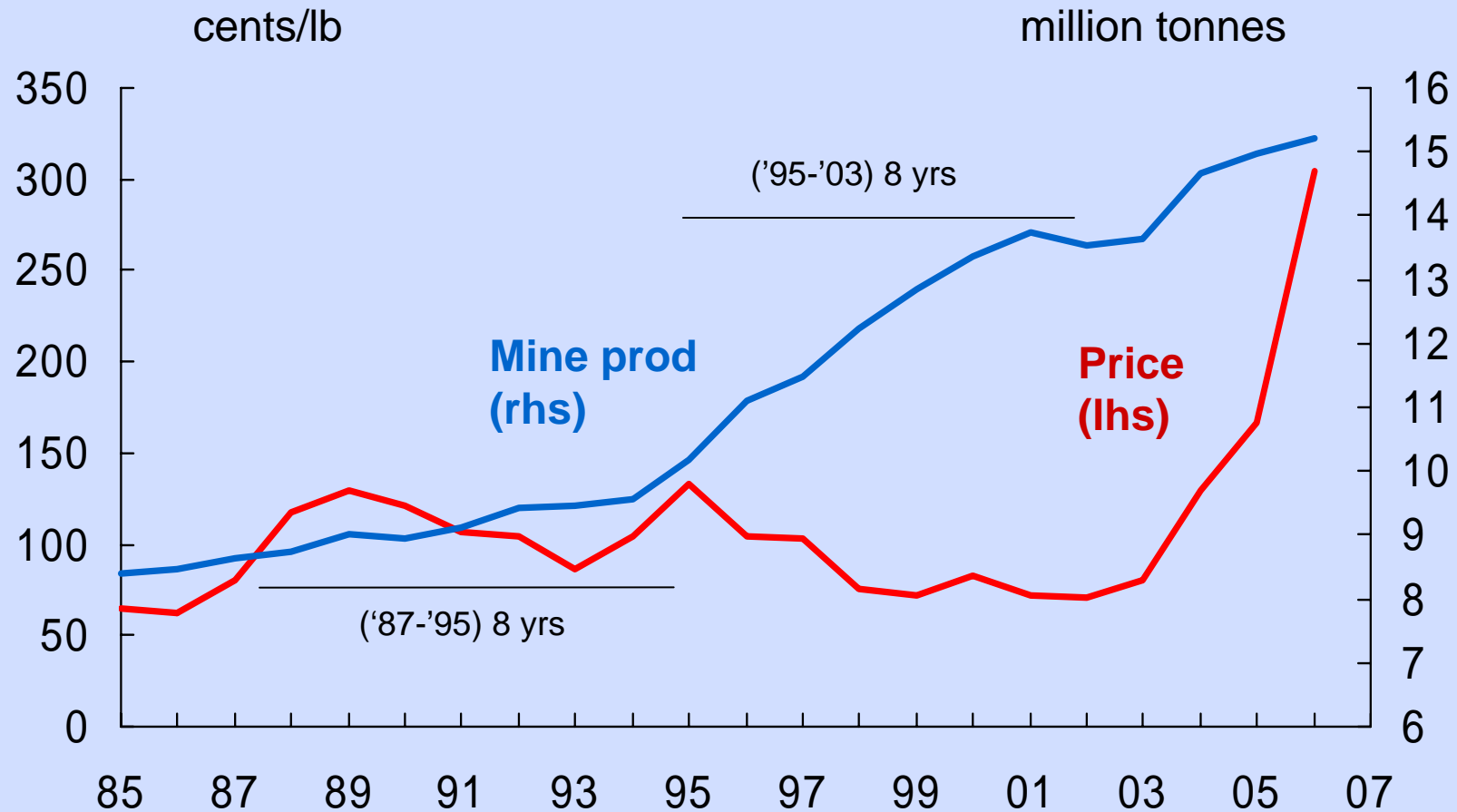
\* 1st UBS no is 2010-2015, 2<sup>nd</sup> is 2016+

# Metal prices and capital expenditure by nonferrous mining and metals industries

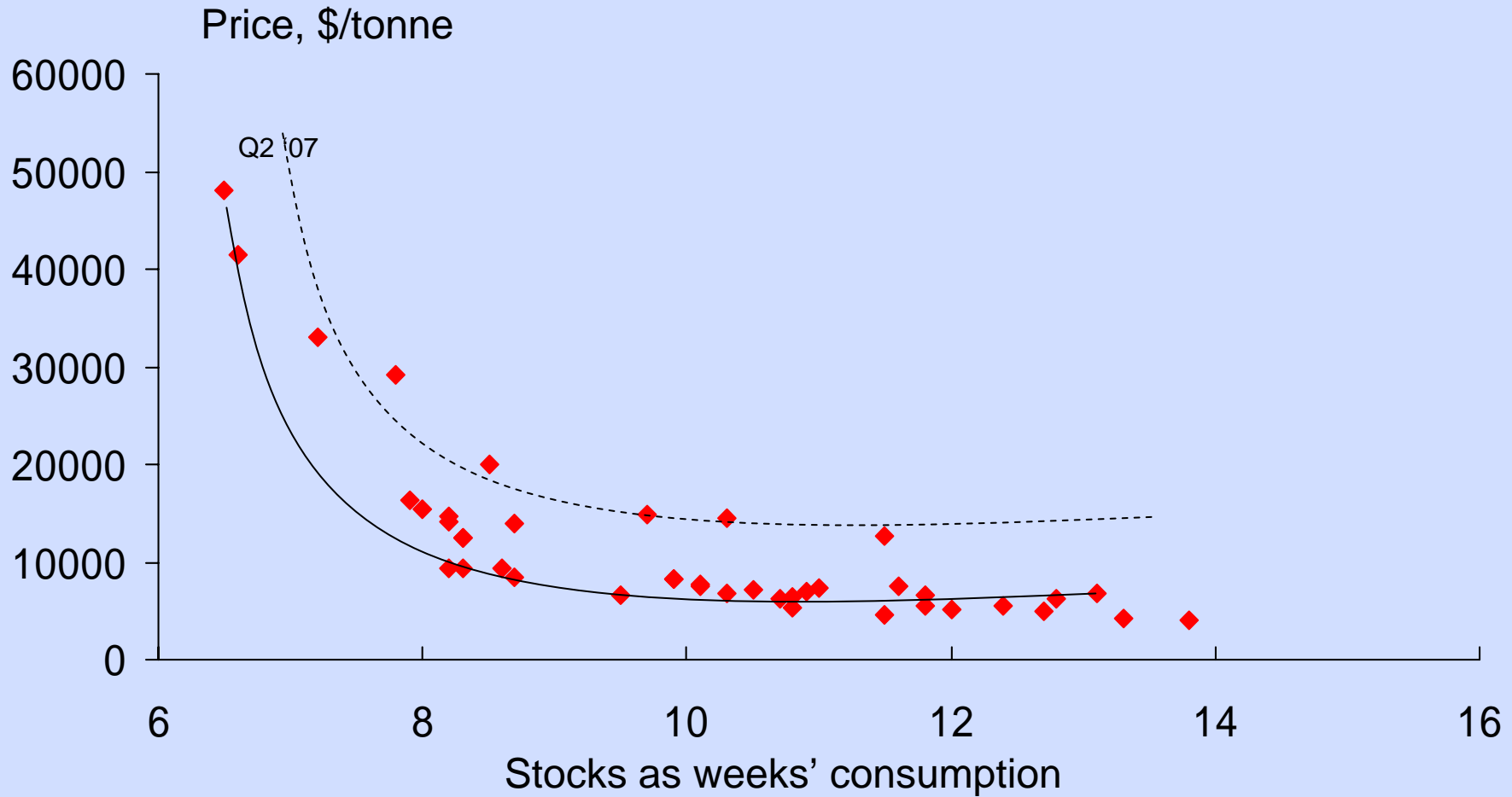


Source: CRU, industry estimates, The Economist

# Copper prices & world mine production



# Nickel price and stocks

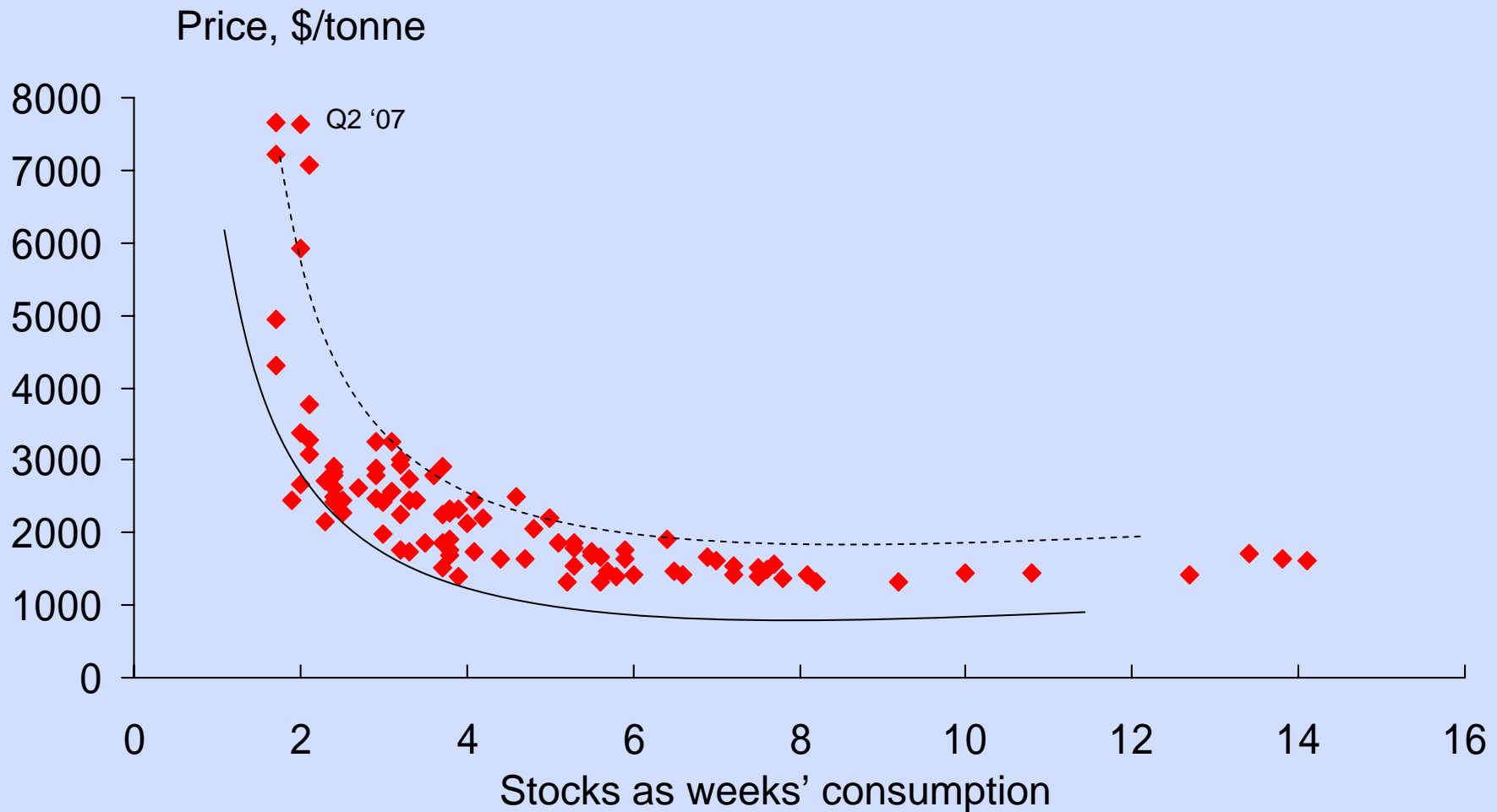


Source: LME and CRU.

# Copper price and stocks 1983-2007

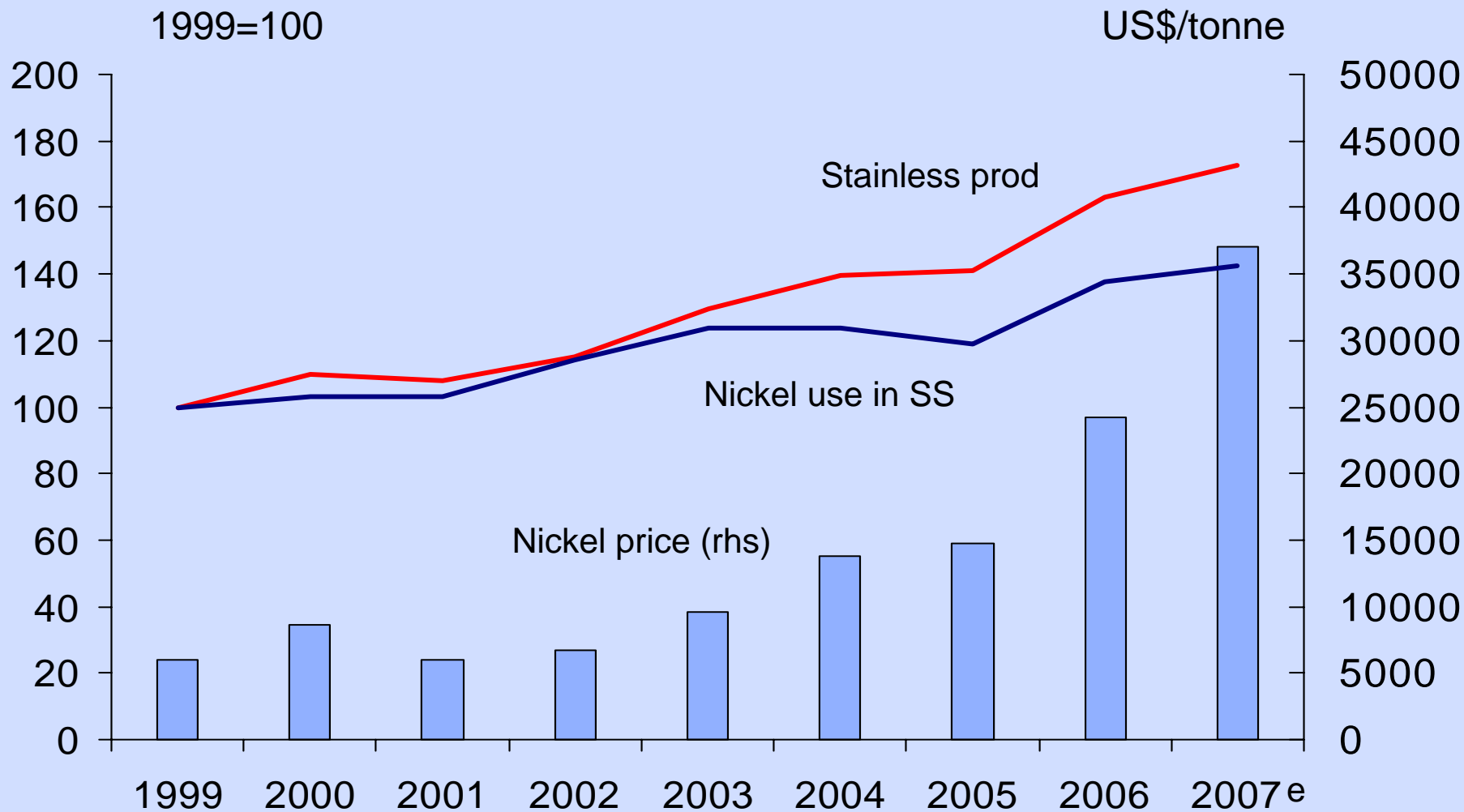


Quarterly data



Source: LME and BH

# Beware the threat of substitution



Source: CRU



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