



Prediction and Outcome  
2003-2009

Pekka Laukkanen Consulting

June 2010



## Prediction and Outcome 2003-09

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left corner.

Charts and comments are from original reports as dated. Highlighting and clarifications added.



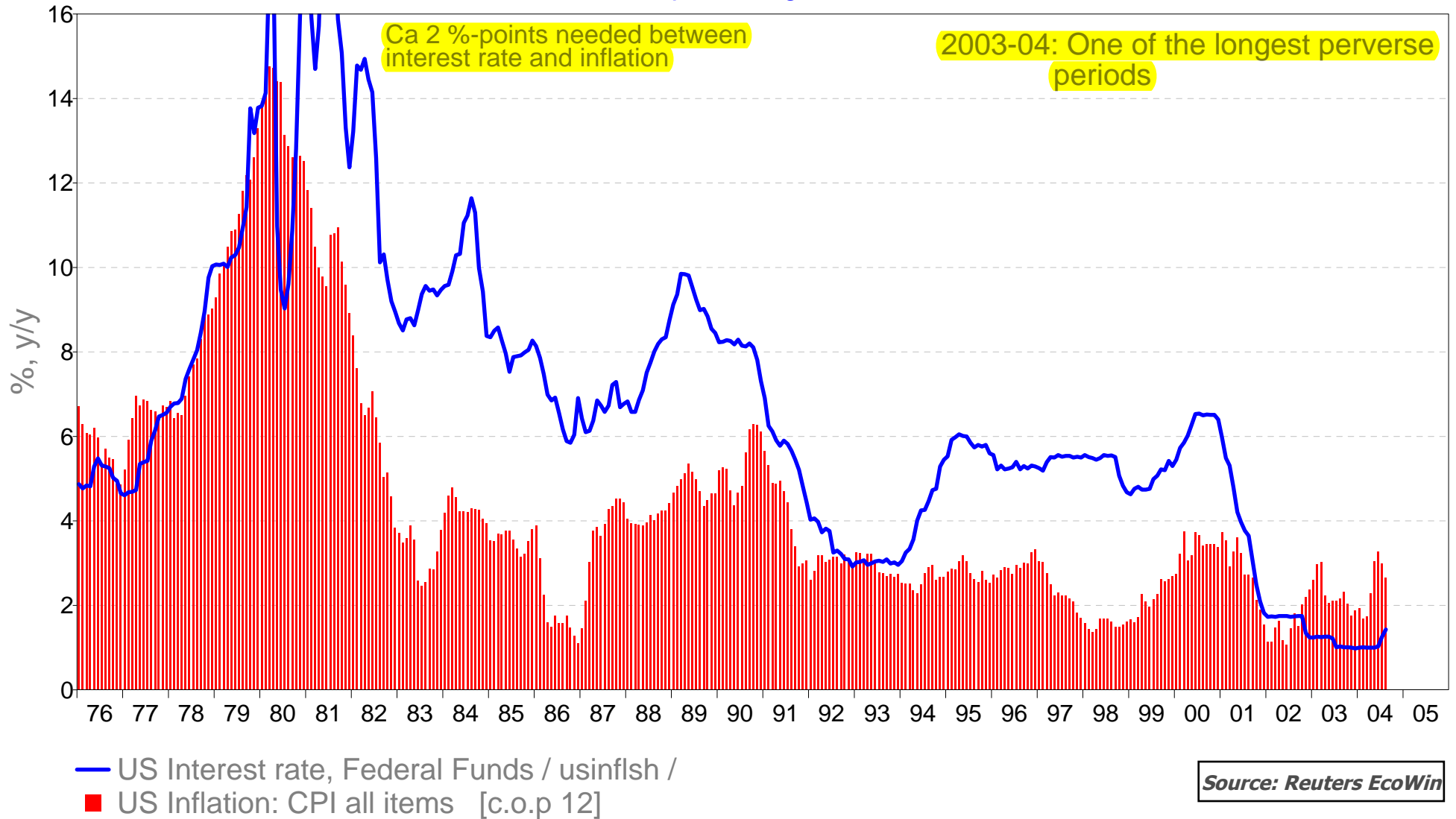
# 1. The rise and fall of US housing 2005-08

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# US Inflation and Interest rate / Aug

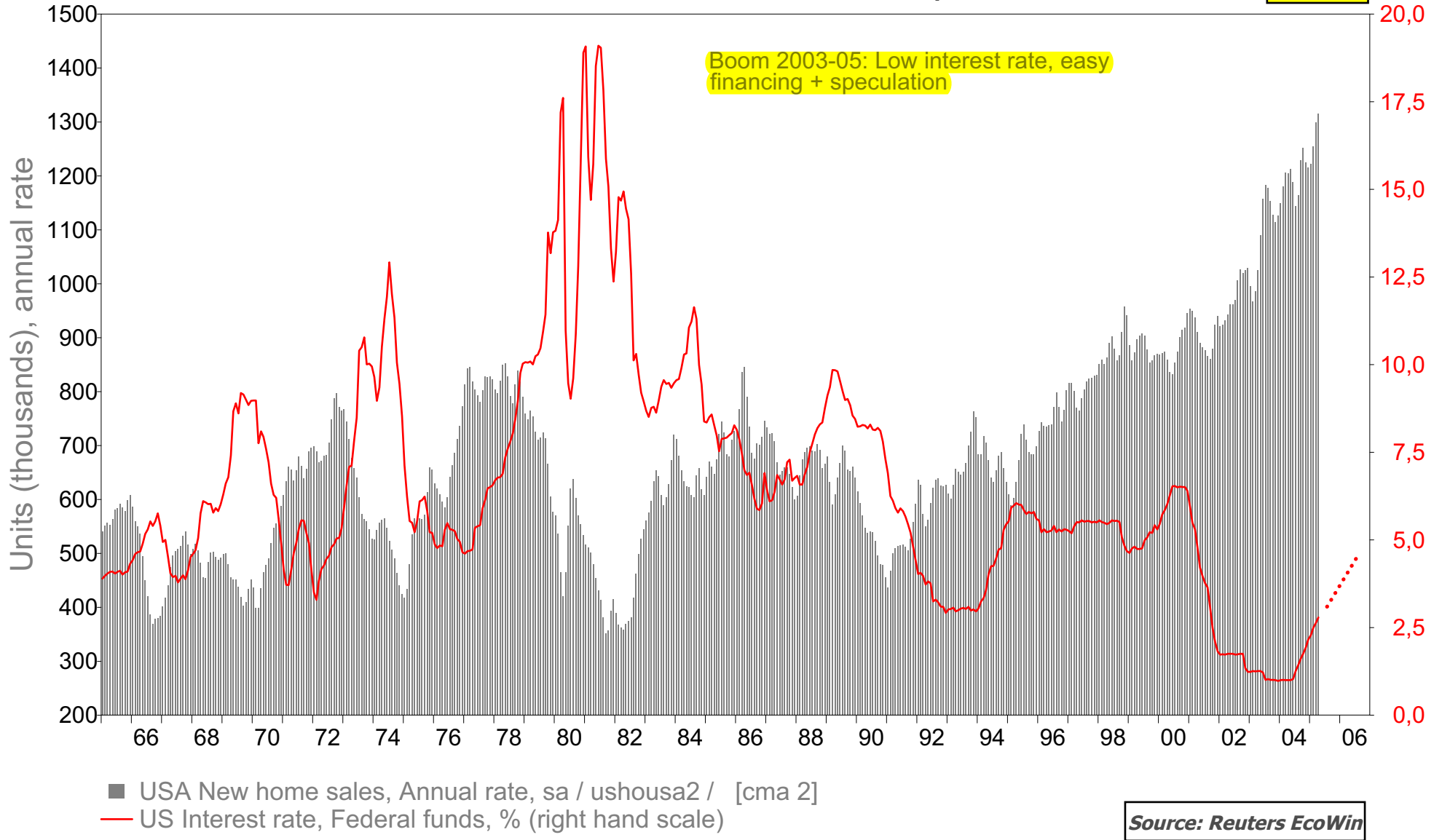
**Aug -04**

For balance, 2-3 %-points higher interest rate needed



# US New home sales / Apr

**Apr -05**



## US HOUSE BOOM RESTS ON SOFT FOUNDATIONS (Stephen Schurr, Financial Times 2005-05-30)

.... It was my first encounter with a much-discussed species: Real-estate "flippers". These individuals buy several homes or homes under development with no money down in the hope of selling to another party in a few months, making a tidy profit in the interim.

I learned that they were, indeed, Wall Street traders. House flipping was a side gig that they were hoping to parlay into a full-time opportunity. When I modestly proposed that the housing market looked like it might be a bubble, to my surprise, they agreed.

"It's insane," the one sitting closer to me said. "Thirty-six per cent of homes are bought with adjustable rate mortgages, and nearly half of the new mortgages are no-money-down deals. With rates going up, it's going to be a bloodbath in a few years."

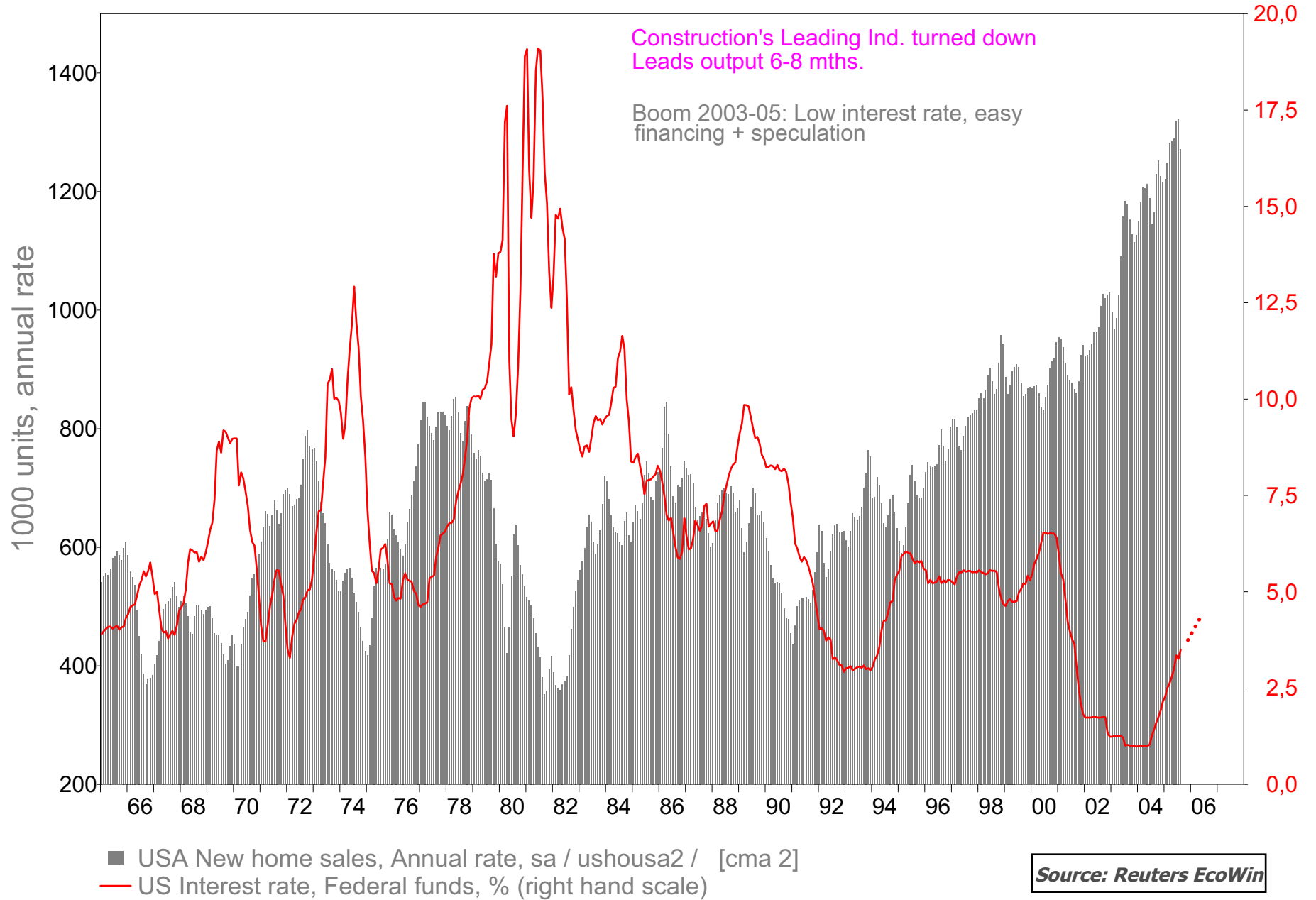
Didn't these facts diminish the prospects of their venture, I asked? "No," the other said. "We have it set up so that we won't get hurt in a downturn."

After a few days, I realised why this point bothered me: to varying degrees, just about every American is in denial about the pain they will feel if the housing market takes a turn for the worse. Even a modest slowing in the housing market would have big consequences for the housing sector, the labour market, the US economy and the stock market. The housing market has propped up the broad economy and stock market in more profound ways than many investors appreciate.

# US New home sales vs Interest rate / Aug

**Aug -05**

Correlation: no reaction to minor rate moves.



## Global market, Feb-06

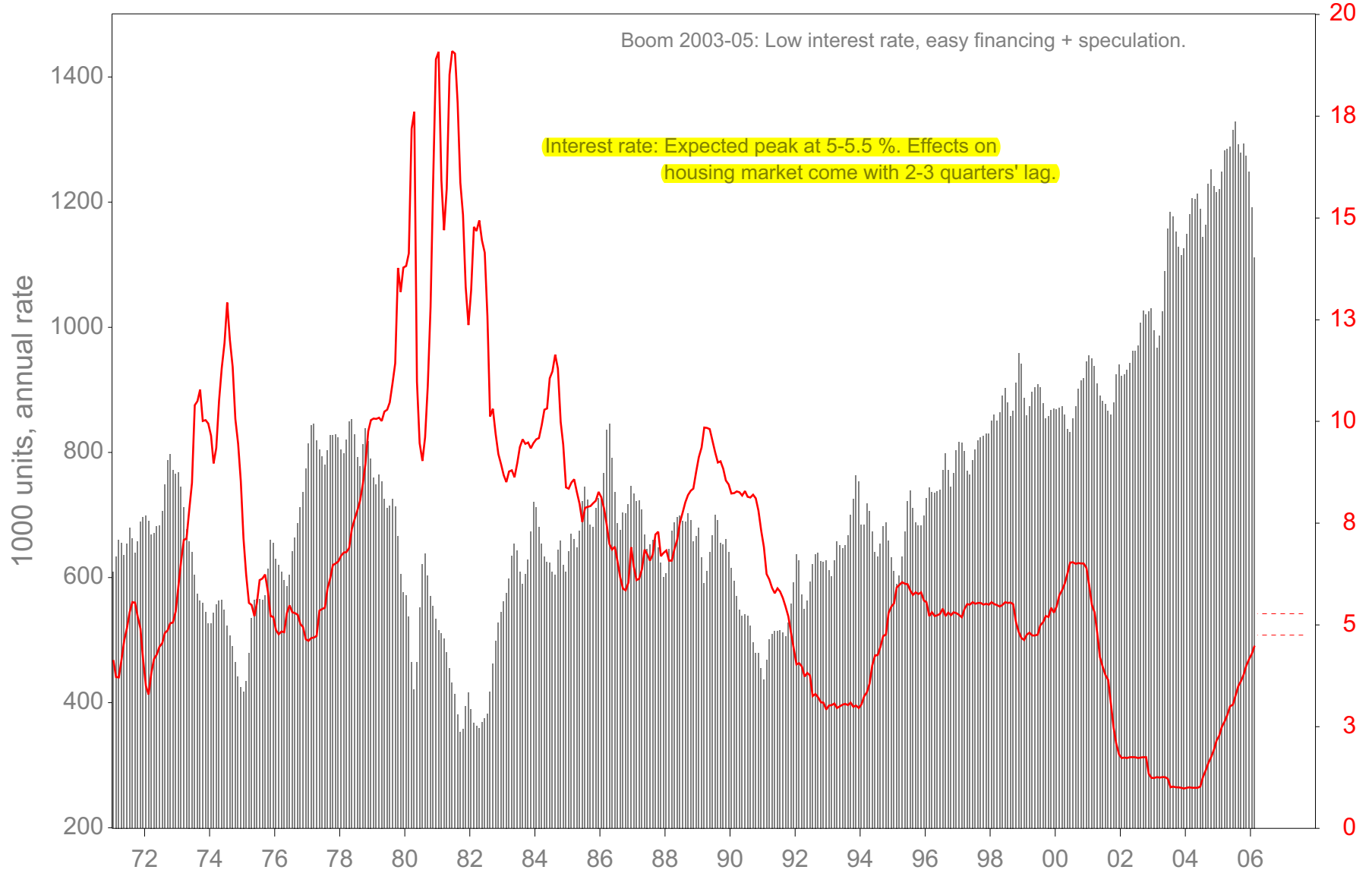
- **Macro:** Everything, except for official GDP figure, points to solid upturn in Germany. Also in Japan, broad based recovery has started. In US, housing market turned down as Fed intended. Then comes the risky part. Take the heat out of housing mania without big dent in consumption and panic in stock market. Some \$ 600 bn – 5% of annual GDP - has been extracted from rising house prices for consumption through loan refinancing. If house prices start to fall, the flow has to be turned.



# US New home sales vs Interest rate / Feb

Feb -06

Correlation: only big interest rate moves have effect

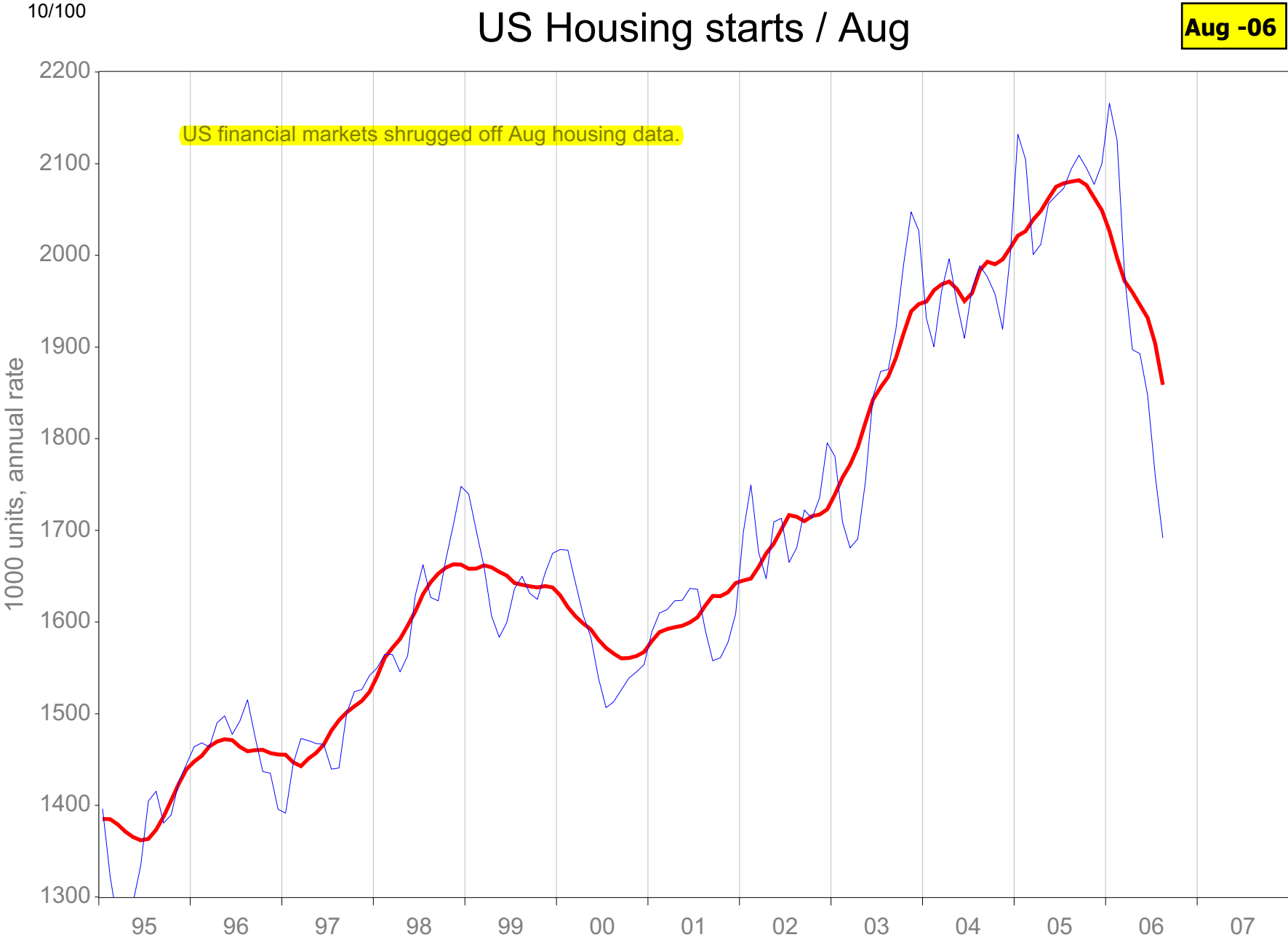


■ US New home sales, Annual rate, sa / ushousa2 / [cma 2]  
 — US Interest rate, Federal funds, % (right hand scale)

Source: Reuters EcoWin

# US Housing starts / Aug

Aug -06



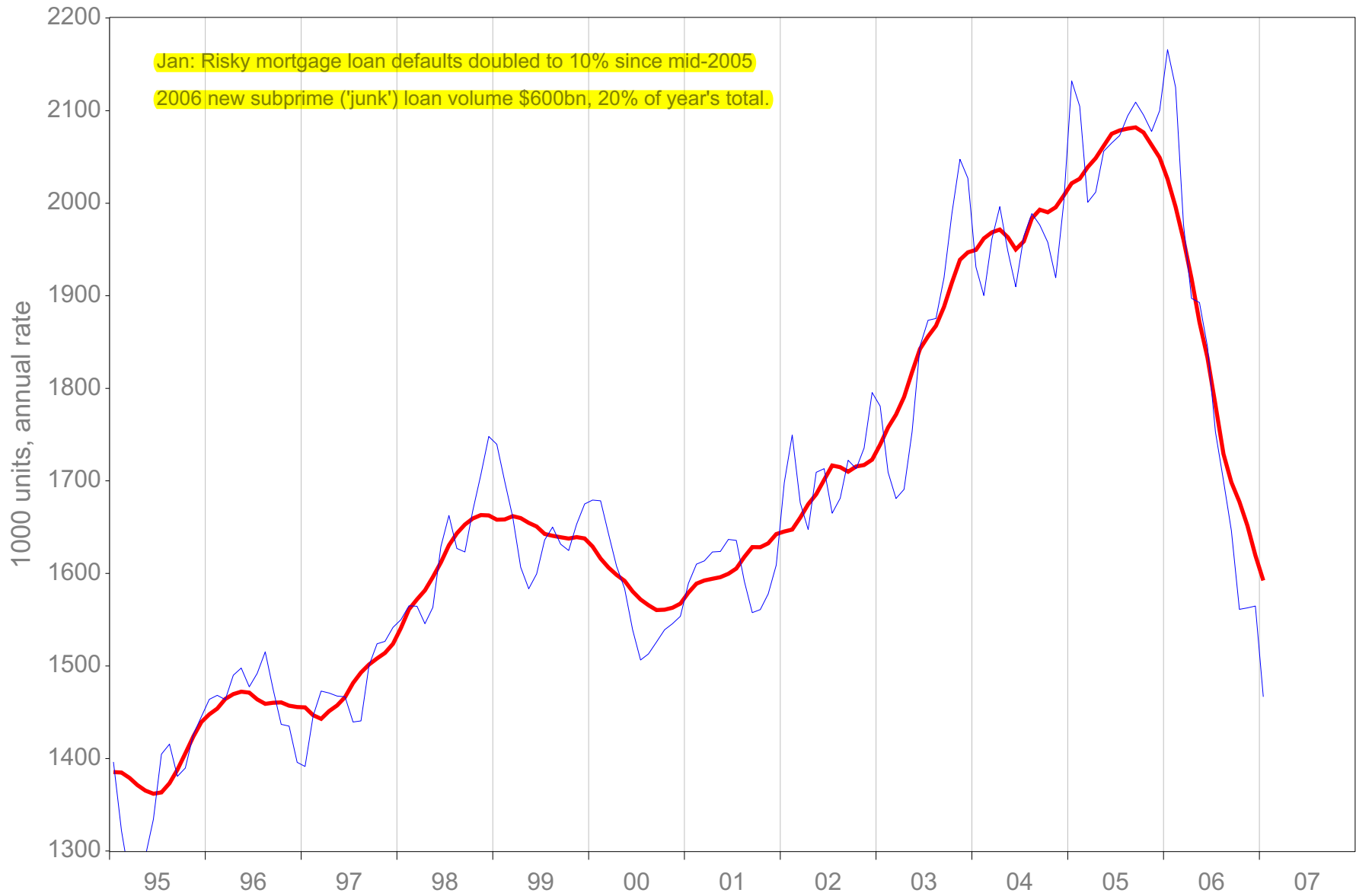
— USA Housing starts, Annual rate / ushouss / [cma 12]  
— USA Housing starts, Annual rate [cma 2]

Source: Reuters EcoWin

# US Housing starts / Jan

Jan -07

Completion time, single family homes: 6-8 months



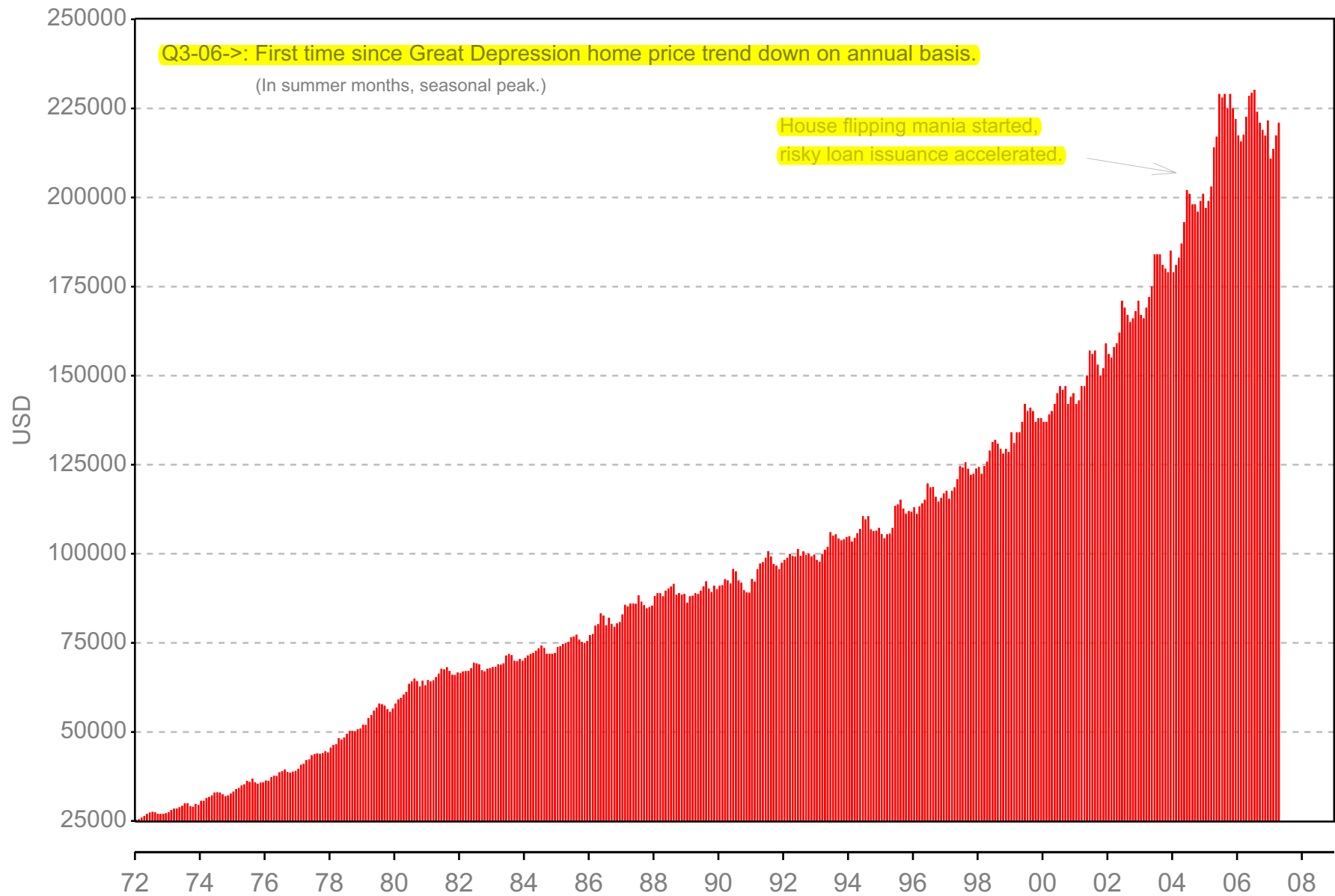
— USA Housing starts, Annual rate / ushouss / [cma 12]  
— USA Housing starts, Annual rate [cma 2]

Source: Reuters EcoWin

# US Existing Home Price / Apr

Apr -07

Median price nationwide.



Single-Family and Condos, Median price, USD / ushouspr

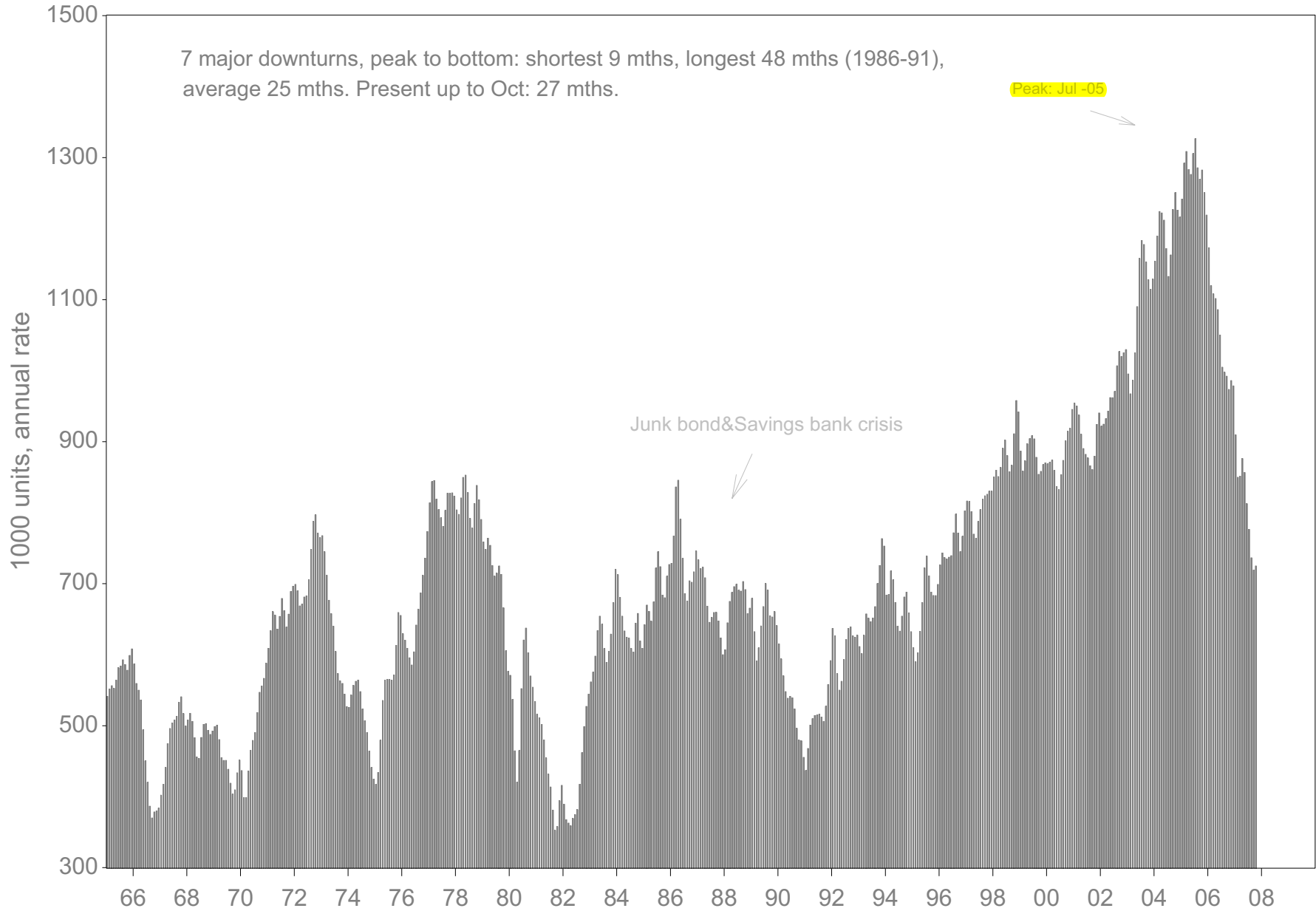
Source: Reuters EcoWin

## Global market, May-07

- **Macro:** US is heading to zero GDP growth in Q2-3 (pp 76-87). Subprime (risky) housing loan problems, growing since mid-06, came to headlines early this year. Debt service failure is leading to 1.5-2 million foreclosures by year-end – families losing homes and threatened by bankruptcy. More than 50 lender companies have collapsed and the reality of loose lending is revealed: ignorant, euphoric home buyers taking too much loan and giving fabricated income statements; greedy lenders with predatory business practices; lawsuits and scandals; absent and nonchalant regulating authorities, etc – the usual late boom behavior. Observers wonder now, if credit standards have been better in other hot areas: hedge funds and private equity.

# US New home sales / Oct

Oct -07

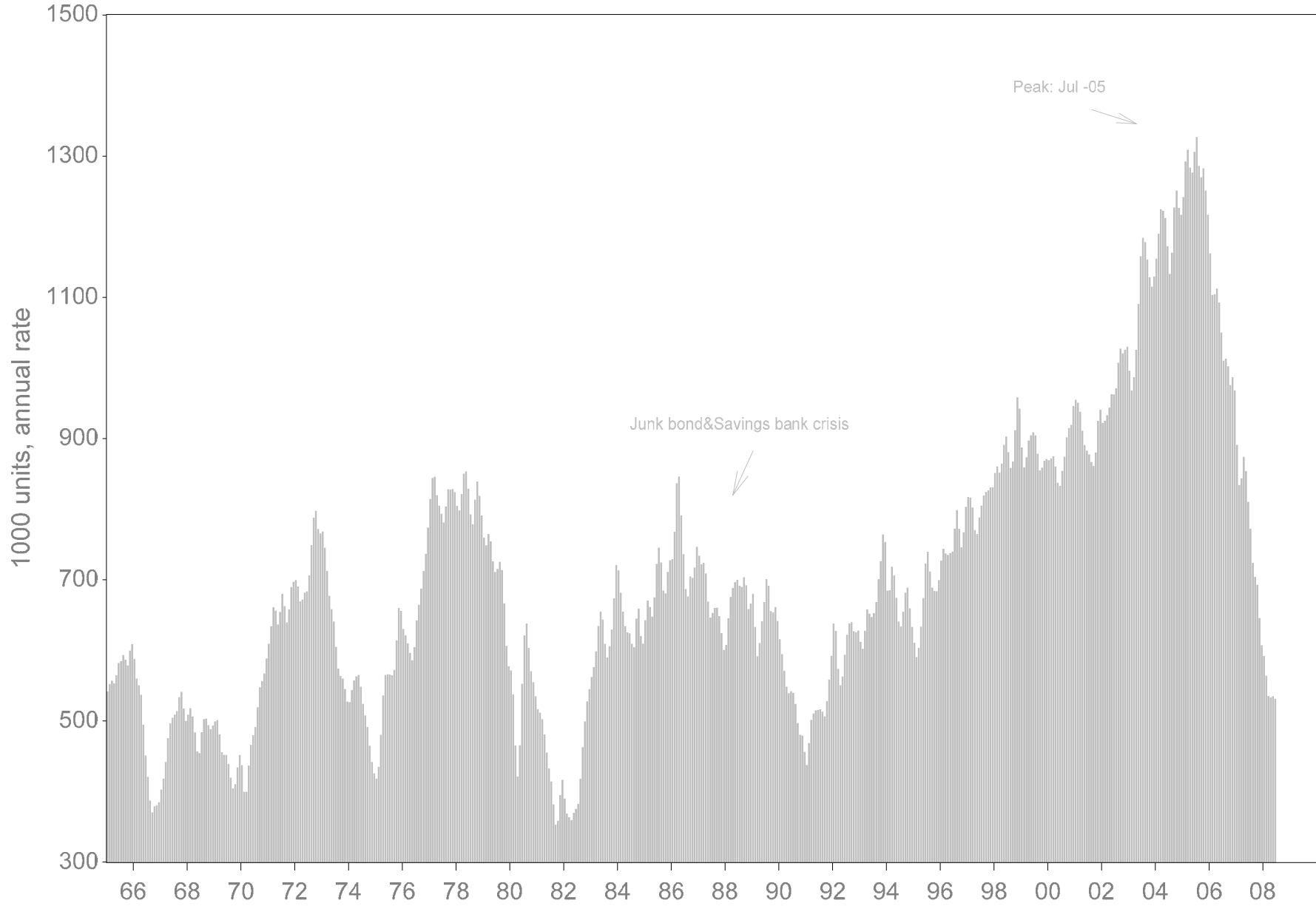


■ US New home sales, Annual rate, sa / ushousa4 / [cma 2]

Source: Reuters EcoWin

# US New home sales / Jun

Jun -08



■ US New home sales, Annual rate, sa / ushousa4 / [cma 2]

Source: Reuters EcoWin



## 2. Commodities 2004-08

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Pages omitted





## 3. Blowing up asset values 2003-08

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'Asset'

Generally: A valuable item that is *owned*.

In accounting: Total *resources* of a person or business, as cash, stocks & securities, receivables, inventories, goodwill, machinery or real estate (housing etc).



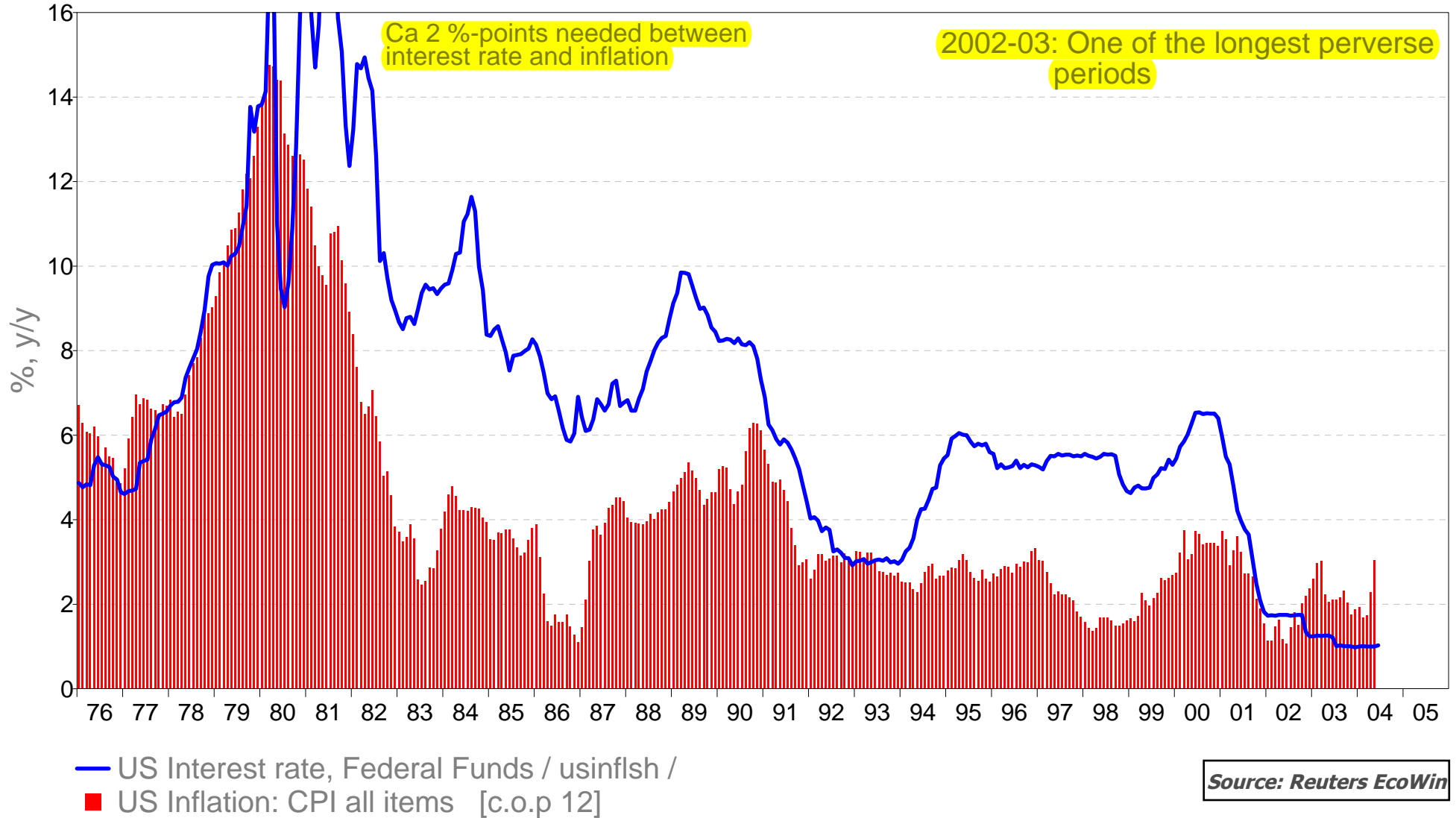
## 3.1 US Deficits, Interest rate & Lending

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# US Inflation and Interest rate / Jun

**Jun -04**

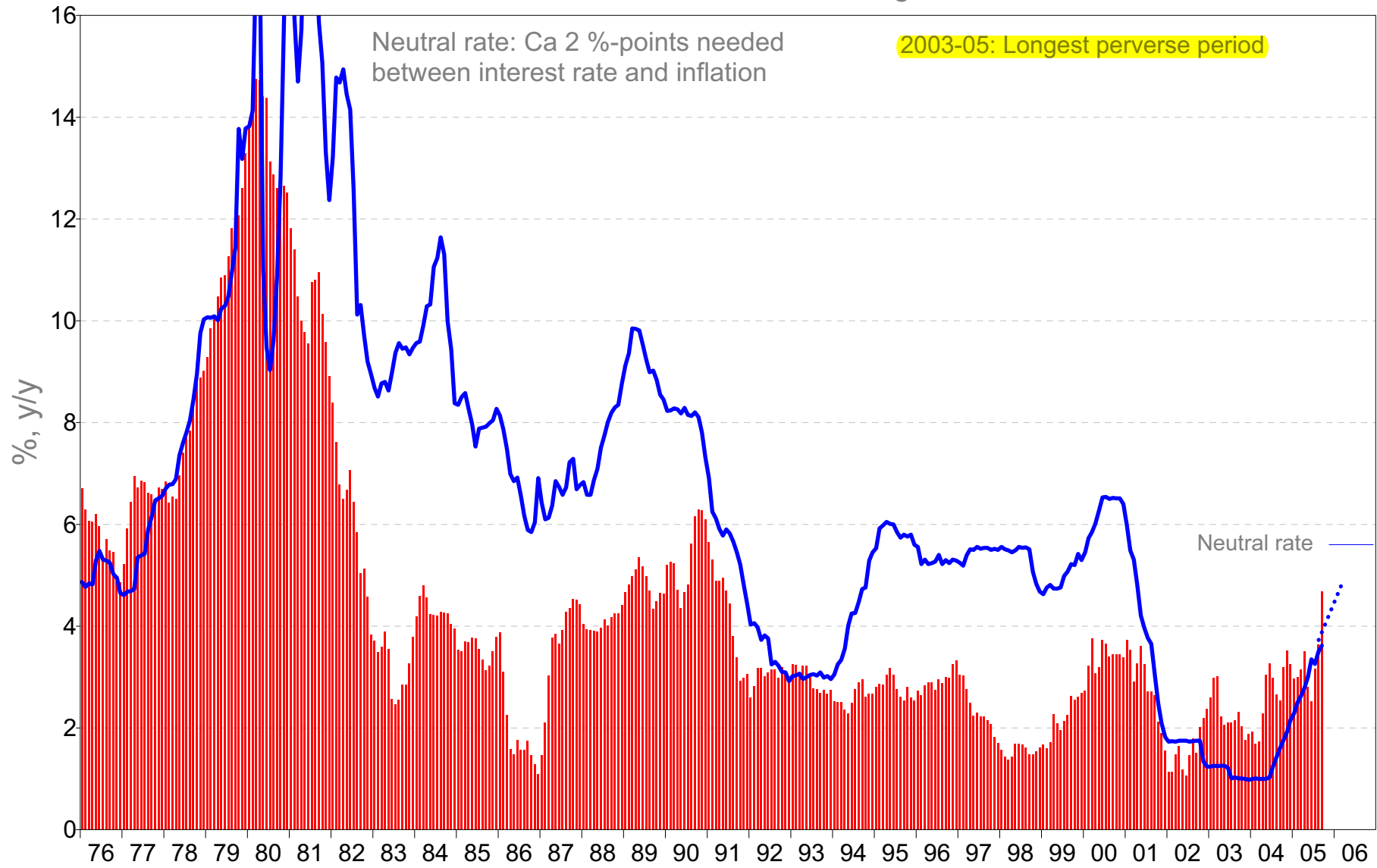
For balance, 2-3 %-points higher interest rate needed



# US Interest Rate vs Inflation / Sep

Sep -05

Correlation 0.77. Coinciding.

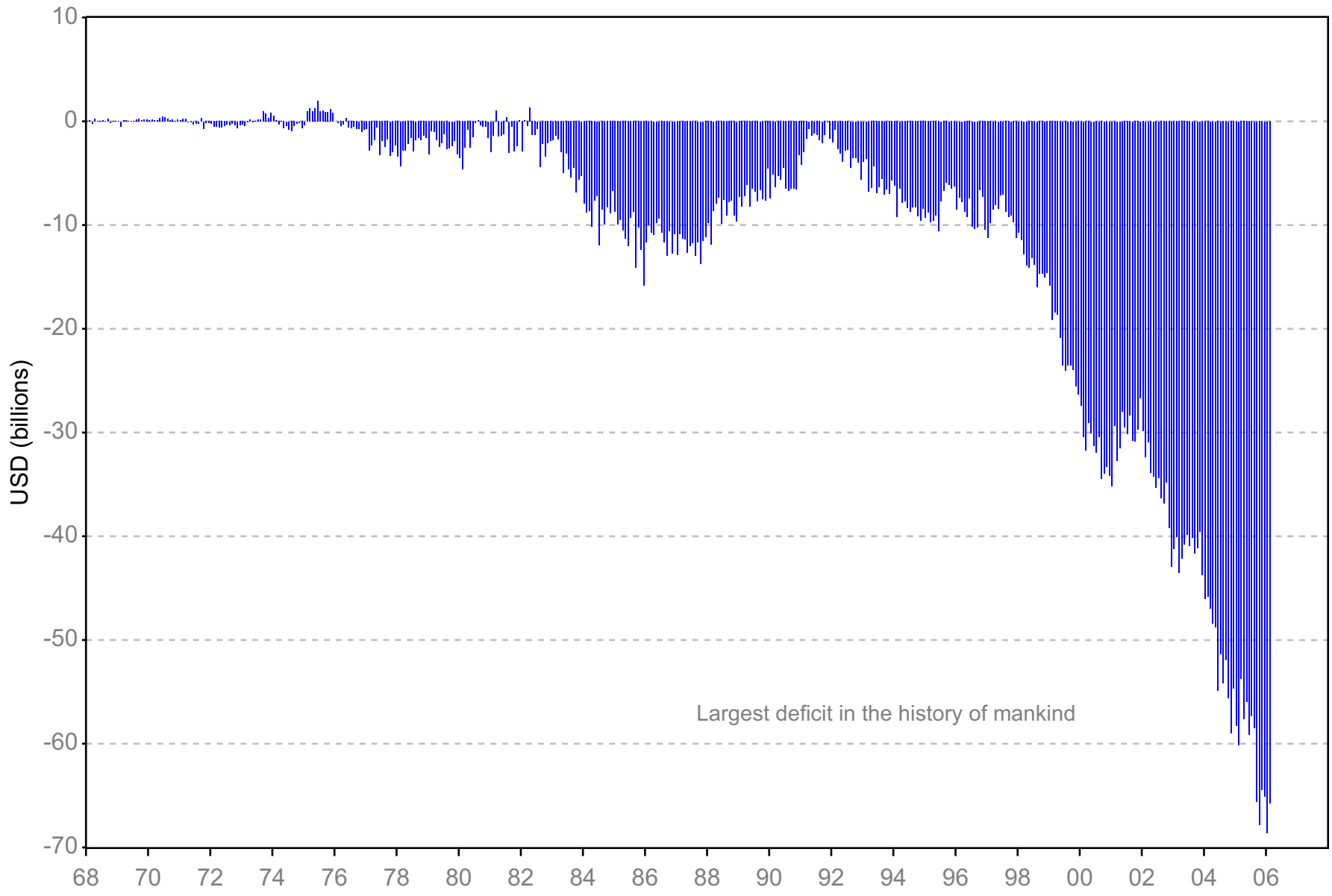


— US Interest rate, Federal Funds / usinflash2 /  
■ US Inflation: CPI all items [c.o.p 12]

Source: Reuters EcoWin

# US Trade Balance / Feb

Feb -06

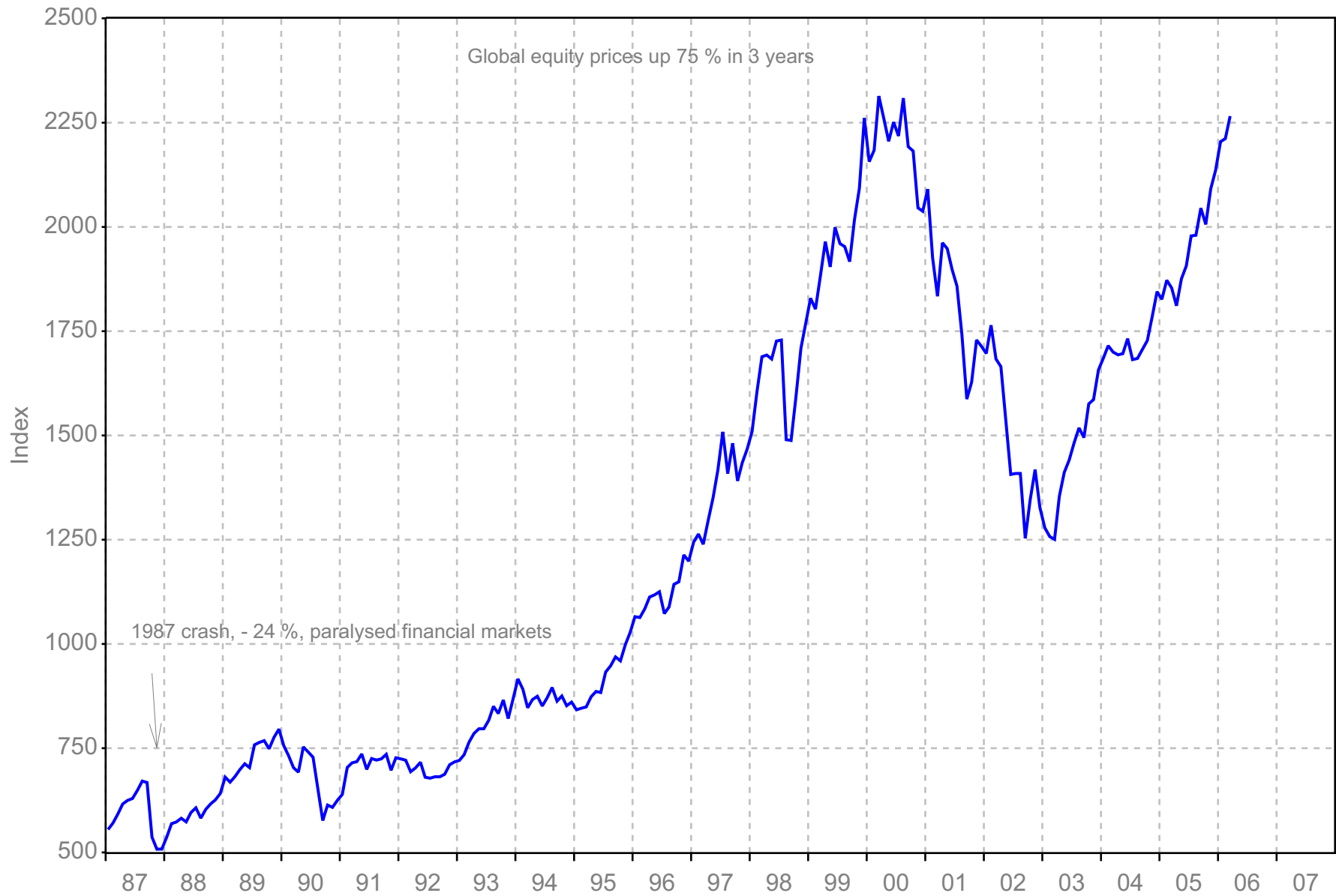


Trade balance, Goods and Services, \$ bn monthly, s.a / ustrade /

Source: Reuters EcoWin

# World Equity prices / Mar

Mar -06



Composite stock price of 23 developed countries, local currency (roughly OECD) / msci-world

Source: Reuters EcoWin

## A Tough Balancing Act

Andrew Smithers, 19th May 2006

The Managing Director of the IMF recently expressed the view that the world economy seemed well set for good growth this year, but that the underlying imbalances in the world economy had seldom been greater. Both these views seem, as can be expected from such an authoritative source, to be soundly based.

When the US stock market bubble came to an end in 2000, the subsequent fall in share prices could easily have been both the start and the cause of a severe recession. This was happily avoided by the response of governments and central banks, which gave a large stimulus to the world economy through a combination of easy fiscal and monetary policies. Taxes and interest rates were both cut.

These policies have been successful in their short-term aims, but they have aggravated rather than cured the underlying imbalances. As seems invariably to happen in bubbles, there was a huge expansion of debt in the latter years of the 20th Century and the subsequent policies have encouraged an even greater build up. But while, in 2000, the overvaluation of assets was largely confined to the stock markets of the US and Europe, it now includes almost all financial assets, including bonds, houses, property and gold, as well as shares.

Nearly all asset prices everywhere are extremely high relative to peoples' income. To return to a more normal relationship, either asset prices must fall or inflation must return to give a boost to incomes. So, if inflation is to be avoided, there must be some sharp falls in asset prices. The problem is that whenever asset prices have had large falls in the past, this has been followed by a severe recession or a prolonged period of economic stagnation, such as Japan has suffered since 1990.

The policies of easy money and large budget deficits, which were introduced when the 2000 stock market bubble ended, were designed to avoid such economic malaise and they were successful. The risk is that the medicine, which has left the underlying problems unresolved, will become less effective over time.

**Glossary:**

**Leverage:** Take debt to increase your risk/reward in investment. **Distressed debt:** Risky/defaulted loans. **Volatility:** Risk, variation; in downturn, big v means crash. **Collateralised Debt Obligation, CDO:** A package of securitized debts (home loans, corporate loans) offered to investors (eg funds). Several risk levels. **Subordinated tranche:** Worst part of the package. **Structured credit:** A package of loans sold to investors as a fund (CDO above). **Rating agency:** Gives objective statement on risks of placement; risks classified in up to 20 classes. **(Credit) derivative:** Transfers credit risk from one party to another.

**The risk game in short:** If you find a promising object (yielding, say 12% pa), you take a bit of own money, add a lot of debt (interest 1-4% pa), make the placement and transfer the risk to a pool of other financial market actors – paying 1-3% pa for the protection. These deals in turn are sold further; called risk splitting. Often, the actors do not know - or control - where the risk finally ended. Neither has there been a test how the protection works in turbulent times.

## Unease bubbling in today's brave new financial world

By Gillian Tett, Financial Times January 18 2007

Last week I received an email that made chilling reading. The author claimed to be a senior banker with strong feelings about a column I wrote last week, ...

“Hi Gillian,” the message went. “I have been working in the leveraged credit and distressed debt sector for 20 years . . . and I have never seen anything quite like what is currently going on. Market participants have lost all memory of what risk is and are behaving as if the so-called wall of liquidity will last indefinitely and that volatility is a thing of the past.

“I don't think there has ever been a time in history when such a large proportion of the riskiest credit assets have been owned by such financially weak institutions . . . with very limited capacity to withstand adverse credit events and market downturns.

“I am not sure what is worse, talking to market players who generally believe that ‘this time it's different’, or to more seasoned players who . . . privately acknowledge that there is a bubble waiting to burst but . . . hope problems will not arise until after the next bonus round.”

He then relates the case of a typical hedge fund, two times levered. That looks modest until you realise it is partly backed by fund of funds' money (which is three times levered) and investing in deeply subordinated tranches of collateralised debt obligations, which are nine times levered. “Thus every €1m of CDO bonds [acquired] is effectively supported by less than €20,000 of end investors' capital – a 2 per cent price decline in the CDO paper wipes out the capital supporting it.



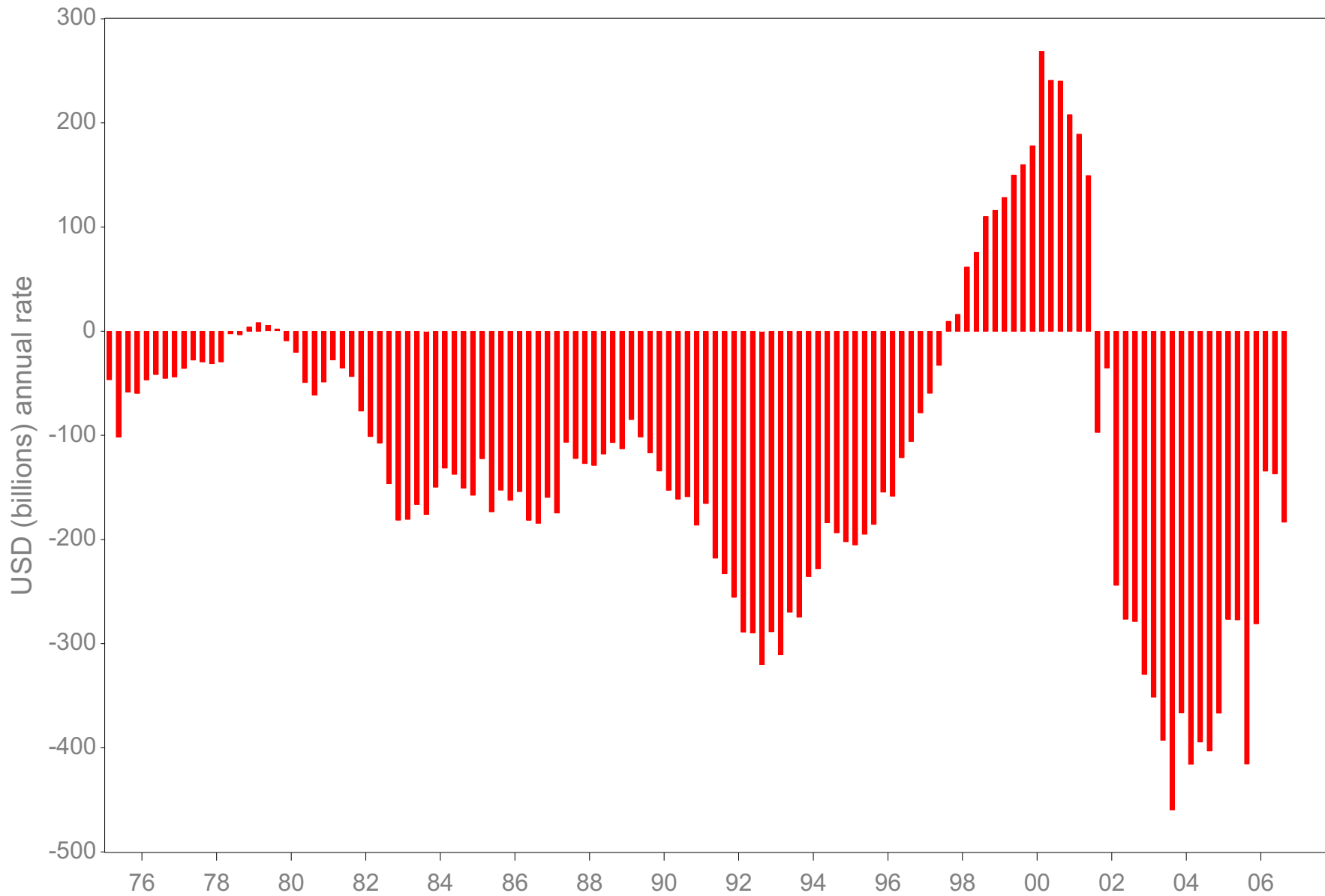
## Financial market risks, Mar-07

OECD business cycle has turned down. Develops either gradually to a traditional inventory&investment downcycle or to a financial market shake-up. Long upturn has created extremes that may unwind suddenly.

**US deficits:** Trade deficit, budget deficit and negative consumers' saving rate have given boost to economy, have lasted long and are already considered as a permanent part of welfare. But it is hard to know when you have gone too far. As former central bank chief Paul Volcker, who put the chaotic US economy in order in 80's, stated on US deficits in 2005: What can be left to later, usually is – and then, alas, it's too late.

# US Government Budget surplus/deficit / Q3

2003-05 growth origins: public borrowing...

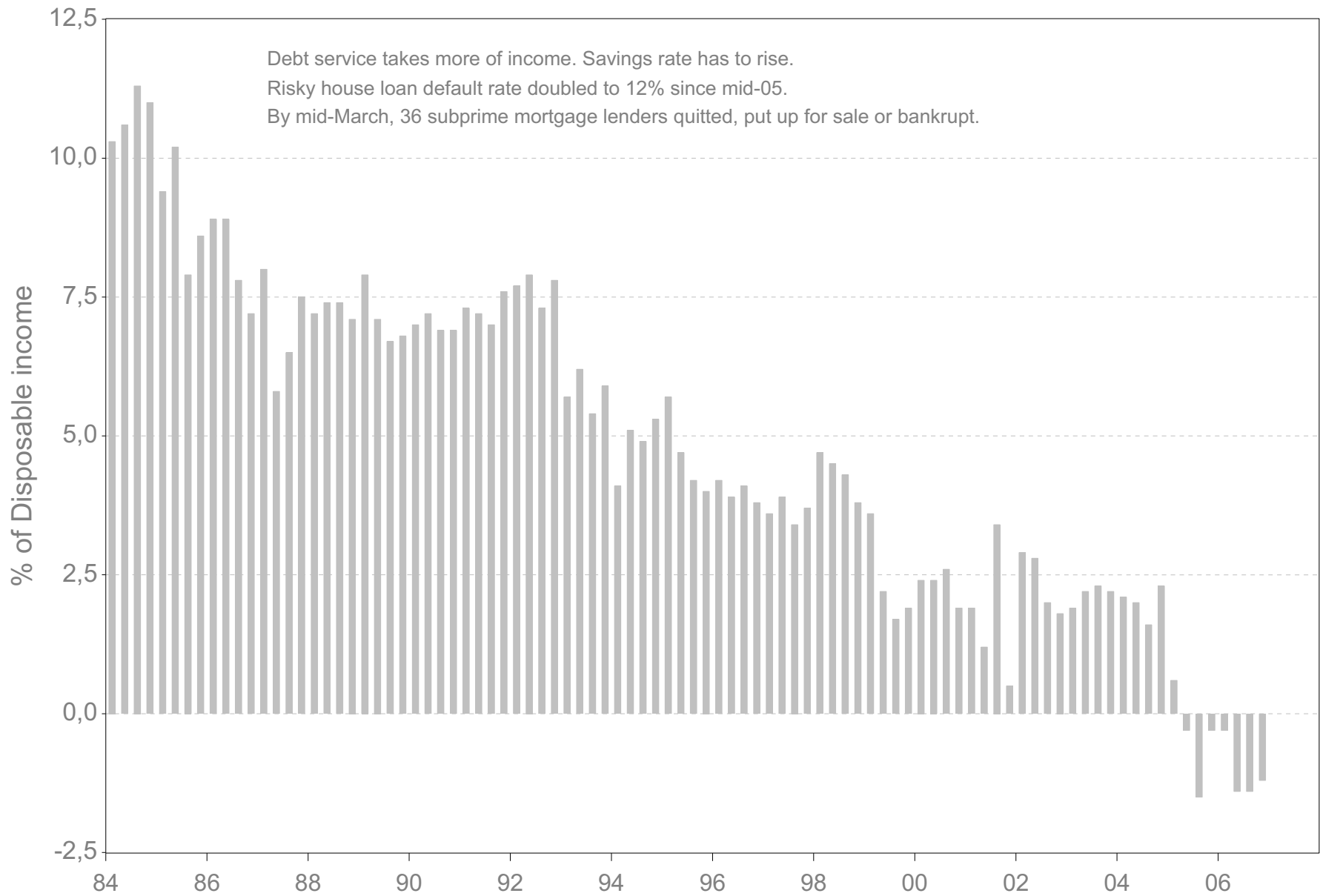


USA Gross government surplus/deficit: Current receipts less expenditures / usdeficit /

Source: Reuters EcoWin

# US Personal savings rate / Q4

... and private borrowing...



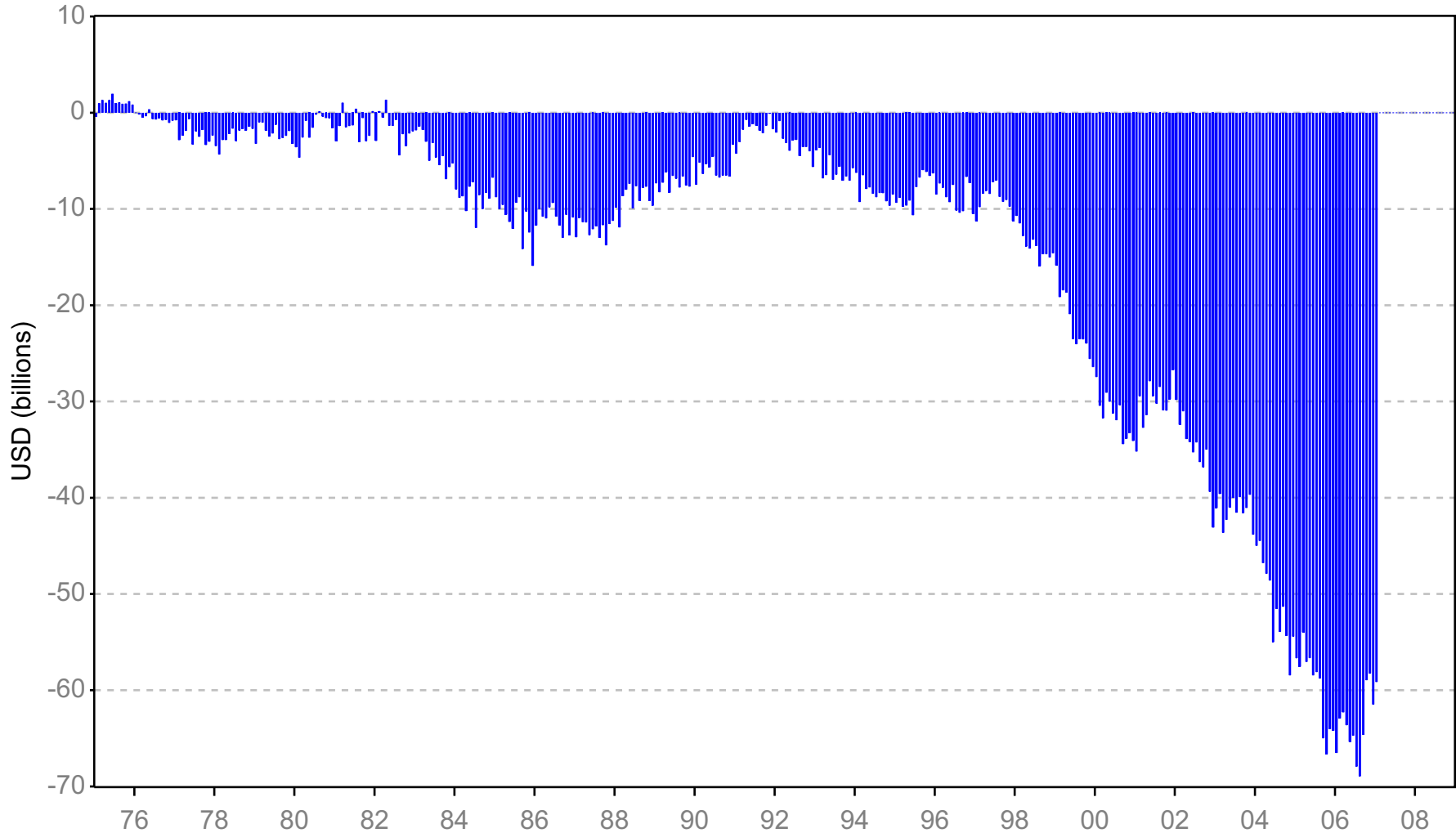
■ US Personal savings, % of disposable income / ussavings

Source: Reuters EcoWin

# US Trade Balance, monthly / Jan

Jan -07

... giving rise to record trade deficit.



Trade balance, Goods and Services, \$ bn monthly, s.a / ustrade /

Source: Reuters EcoWin

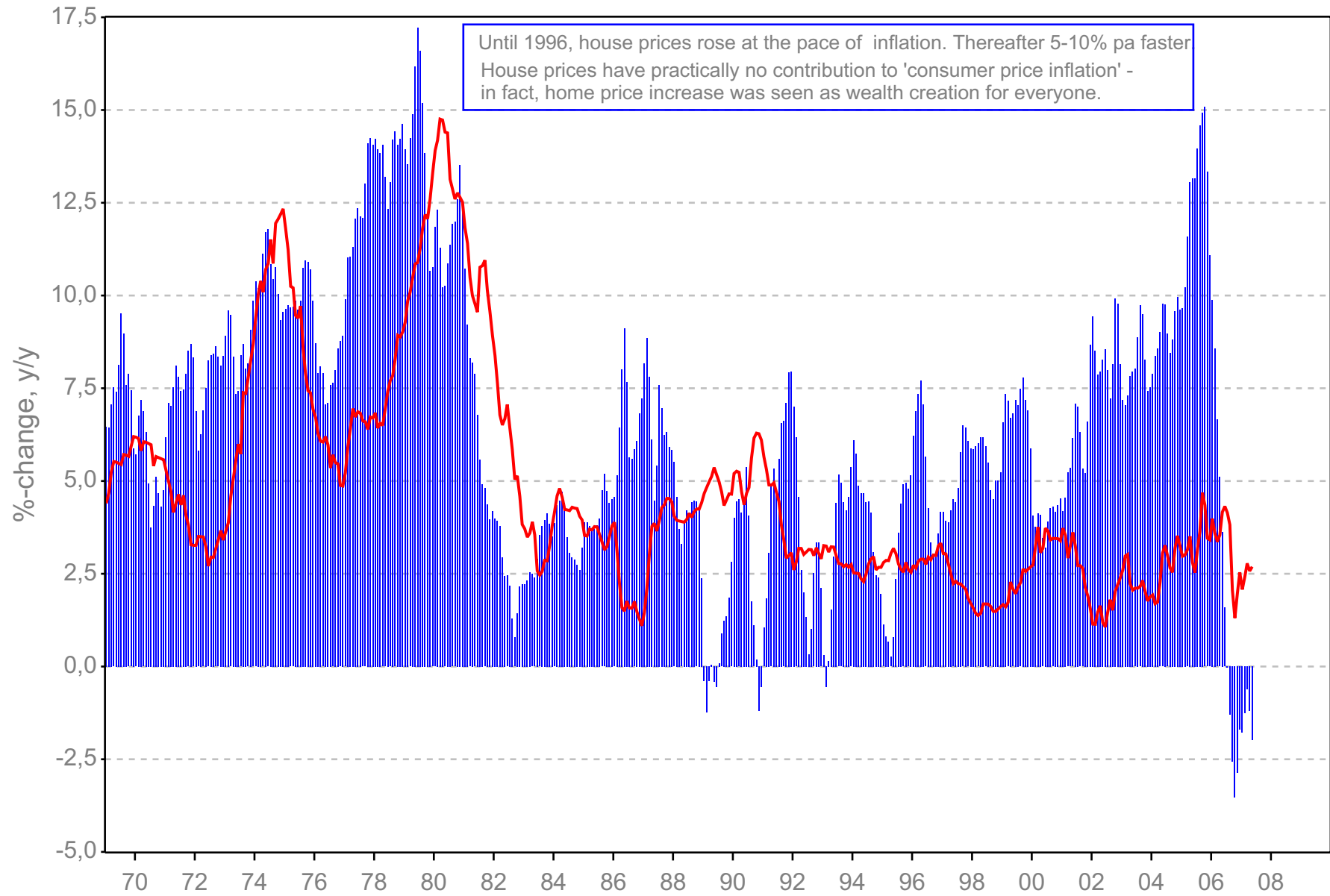
## Global market, Apr-07

- **Macro:** G3 and Chinese central banks are well aware on the dangers loose lending and asset speculation have created. There seems to be a mutual understanding on the need to take excess money from the market - disguised as inflation fighting. Inflation rising from 2% to 2.5% is certainly one of bankers' least worries today. According to the CEO of BlackRock, a \$1000bn US fund management group, 'Lending standards have deteriorated to levels that we never even dreamt we would see.'

## Global market, May-07

- **Macro:** US is heading to zero GDP growth in Q2-3 (pp 76-87). Subprime (risky) housing loan problems, growing since mid-06, came to headlines early this year. Debt service failure is leading to 1.5-2 million foreclosures by year-end – families losing homes and threatened by bankruptcy. More than 50 lender companies have collapsed and the reality of loose lending is revealed: ignorant, euphoric home buyers taking too much loan and giving fabricated income statements; greedy lenders with predatory business practices; lawsuits and scandals; absent and nonchalant regulating authorities, etc – the usual late boom behavior. Observers wonder now, if credit standards have been better in other hot areas: hedge funds and private equity.

# US Existing-Homes Price vs Inflation / May

**May -07**


■ US Existing-Home Sales, Single-Family and Condos, Median price / ushousepr4 / [cma 2, c.o.p 12 months]  
— US Consumer Prices, All items, Index [c.o.p 12 months]

Source: Reuters EcoWin

## Subprime loans and Junk bonds (cont...) / Aug-07

\* \* \*

- What is going on this time, wonder markets now. Bear Stearn's collapsed funds were exposed to highest rated home loans and were even hedged (balancing bets made in opposite direction). Still, collapse hit a home loan specialist. Subprime AAA was not safe and normal correlations did not work. By end-July, some 20 funds had closed or collapsed in US, Europe and Australia.
- Outstanding value in house and corporate loan protection deals is estimated to \$10 000-35 000bn globally. Who holds these papers, a huge amount of risk ? Big banks and some insurance companies – intentionally and by accident - and all kind of funds that bought good looking papers without reading the contents. Some big surprises outside fund spheres probably appear.
- Whatever the developments in financial sector, US housing market troubles will last at least to the end of 2008 (p 80) and announcements on risky loan losses all over the world drop in regularly maybe till next summer.
- Falling house prices mean a cut of \$200-400bn annually in consumer spending. Hits worst durables, autos included. Lowers GDP growth by 2% pa from second half 2007 on.

### Valuing assets

A macro issue: wealth of nation has to be produced. If it is only created on paper, economic forces strike back. Some corrections will be sudden, others take years and decades.

Global GDP, industrial production and productivity – all closely related measures of wealth creation – have been growing at 2-6% pa rate in past decade. Since 2003, world 'wealth' by some measures (housing, stocks and other placements) has grown by 20% pa. In boom times all is about higher and higher *prices*. After boom comes the asset price test. What is the *cost* to produce houses in competitive environment. Similarly for corporate sector: is price of companies in reasonable relation to the cost of companies, i.e. cost of productive capacity. This relationship is today inflated by some 30%. Cost is fixed in medium term, so share price has to give.



Revelation of subprime losses is still in early stage. Official estimate was raised to \$150bn while by Q3, banks and brokers had reported some \$50bn. Outstanding subprime volume is \$1500bn, totally 20-40% of this likely needs to be written down. According to present valuation (next page), outcome could be of the order of \$500bn. Half of the losses will be taken on the accounts of banks, brokers and hedge funds. These actors borrow 10-15\$ for each 1\$ of own money they use in transactions. If equity shrinks, debt has to be cut - and subsequent lending and placements - in same proportion. Equity in world's 10 largest banks amounts to \$700bn.

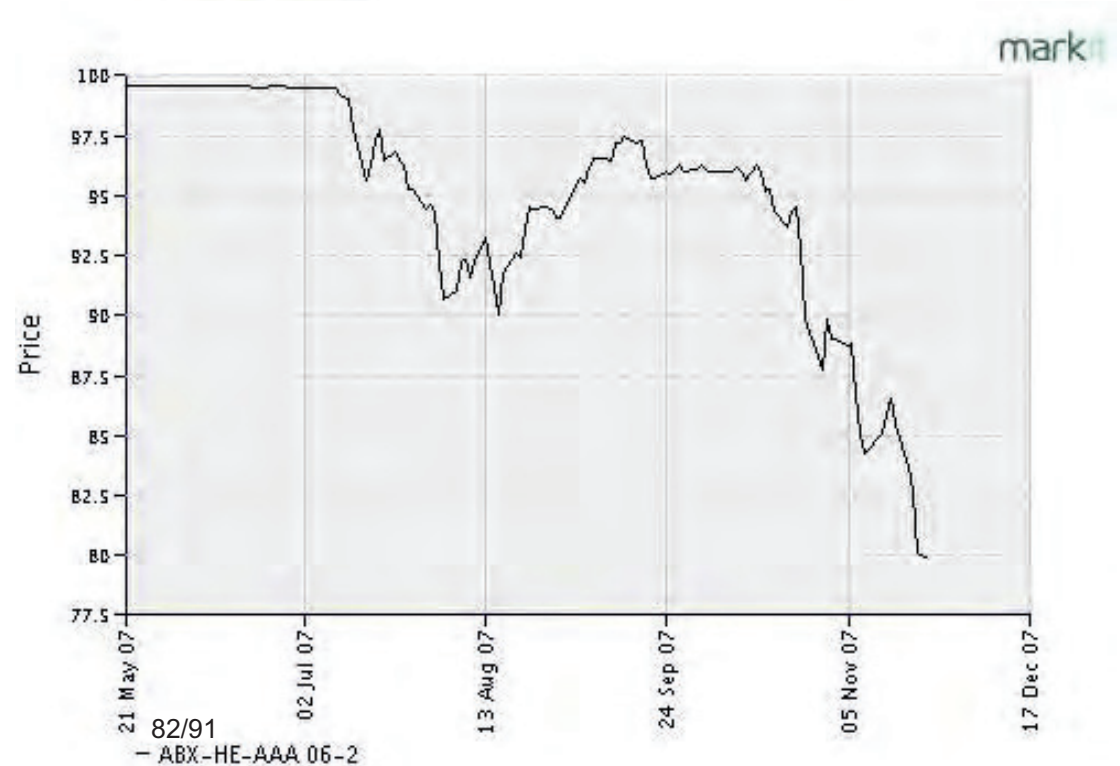
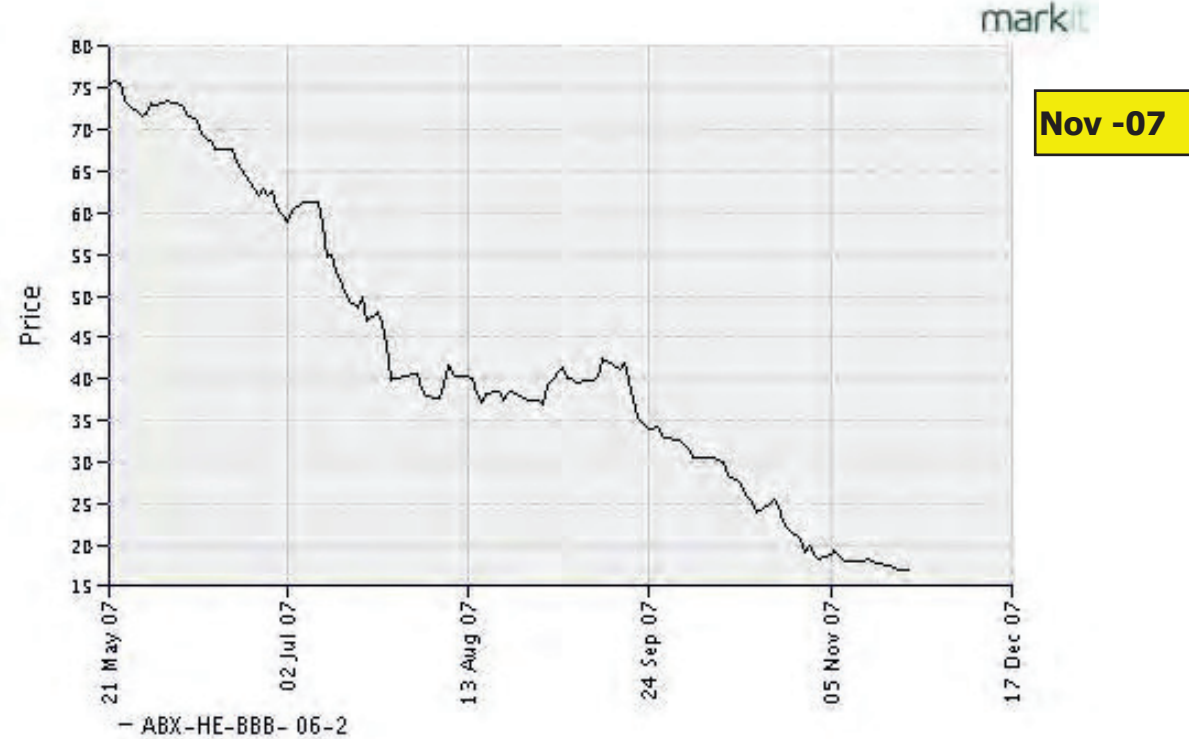
Also better quality housing and corporate loans are losing value, especially in case of forced sales. Bids for complex mid-grade securities have been 40-60% of face value. Main problem is not defaults but too much supply in a depressed market. Ignored risk during credit boom eats now into the value of the loans.

## Development of Subprime crisis Loan's market price, ABX Index

**Riskiest** Subprime home loan: BBB-  
Index 100: Original loan value  
when issued in H2 2006.

**Average subprime, Nov index: ca 70**

**Highest rated** Subprime home loan: AAA  
Index 100: Original loan value  
when issued in H2 2006.





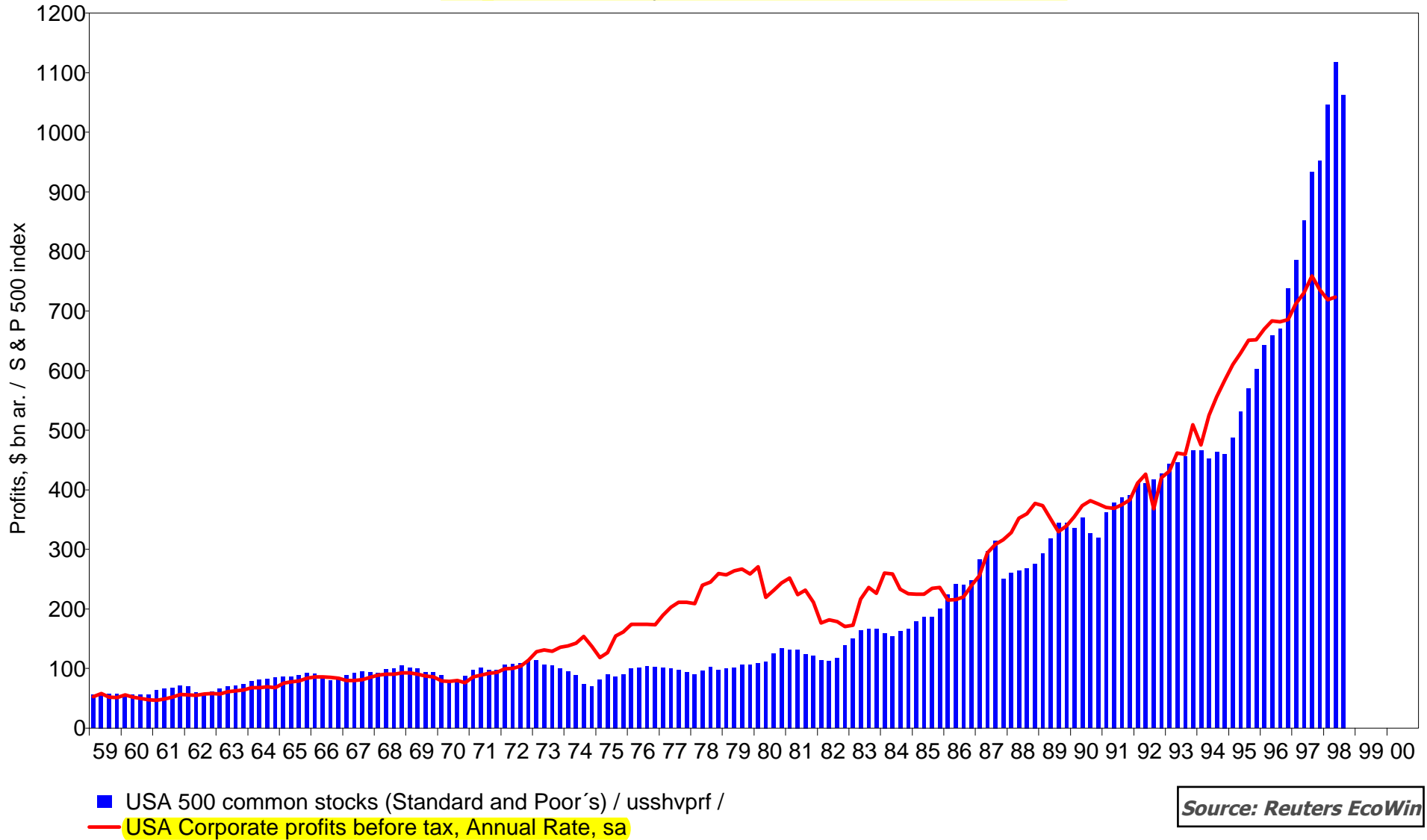
## 3.2 Stock markets, Prolog 1998-2002

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# USA Stock prices vs Corporate profits, Quarterly / IIIQ

**Nov -98**

Profits, actual and expected, used to be basis for stock values.



Source: Reuters EcoWin

**Feb -00**

## US STOCK MARKET

- \* Stock market 70 % overvalued (Yardeni / Deutsche Bank - using Greenspan's own formula)
- \* To justify present stock valuation, the share of global GDP taken by profits has to rise to 19 % in 10 years (Goldman Sachs).
- \* Historically, major stock market falls have not happened without major monetary policy tightening.  
'US interest rates will have to keep rising until the stock market bubble bursts.'  
(FT)

Pekka Laukkanen 2000-02-04

Week 15**Apr -00****Nasdaq peak: Mar 10**

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US internet stocks: A drastic shakeout begins for e-tailers

- 719 venture capital firms have invested \$10bn in 445 business-to-consumer Web companies (consumer goods and services on the net).
- Some 50 companies, public and private, stand to run out of cash by year-end. In recent months, investors have turned sceptical to the whole internet retail sector. Sales potential seems to be gravely overestimated and costs underestimated. The most quoted Internet forecaster, Forrester Research, turned suddenly negative and states in recent report: 'most online retailers will be driven out of business or taken over by 2001'.
- First big e-commerce public company insolvency could be only a few weeks away.

With a lag, this pattern will be repeated in European consumer goods internet business.

**Pekka Laukkanen 2000-04-14**

Week 19

May -00

Stock market

Recent statements by three of world's best known investors:

'Price has been eliminated from the stock market. You cannot operate on an irrational market.' Founder *Julian Robertson* when closing down Tiger Fund, one of the best known and most profitable hedge funds.

'Market conditions are as extreme as anything that has happened, probably including the 1920s ' (but no parallel to the depression).

'When we look back, we will see this as a period of enormous wealth transfer, not wealth creation.'

*Warren Buffett*, America's richest investor with 35 years experience.

'I am very happy to pull my money out of the market. ... I do not understand what is going on.' *George Soros*, one of the most successful investors of the age.

' Stock market is now crazy-insane, unbelievably dangerous.' Retiring chief of Soros fund.

'Irrational exuberance' US central bank chief *Alan Greenspan* commenting stock market in 1997. After the statement, Dow Jones has risen 50 %.

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1830 av  
Lars Johan  
Hierta

På internet sedan  
25 augusti 1994

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De svenska grundarna Ernst Malmsten och Kajsa Leander misslyckades med miljardsatsningen på klädhandel på nätet. I dag begärdes boo.com i konkurs och sidan stängs.

Foto: LASSE ALLARD

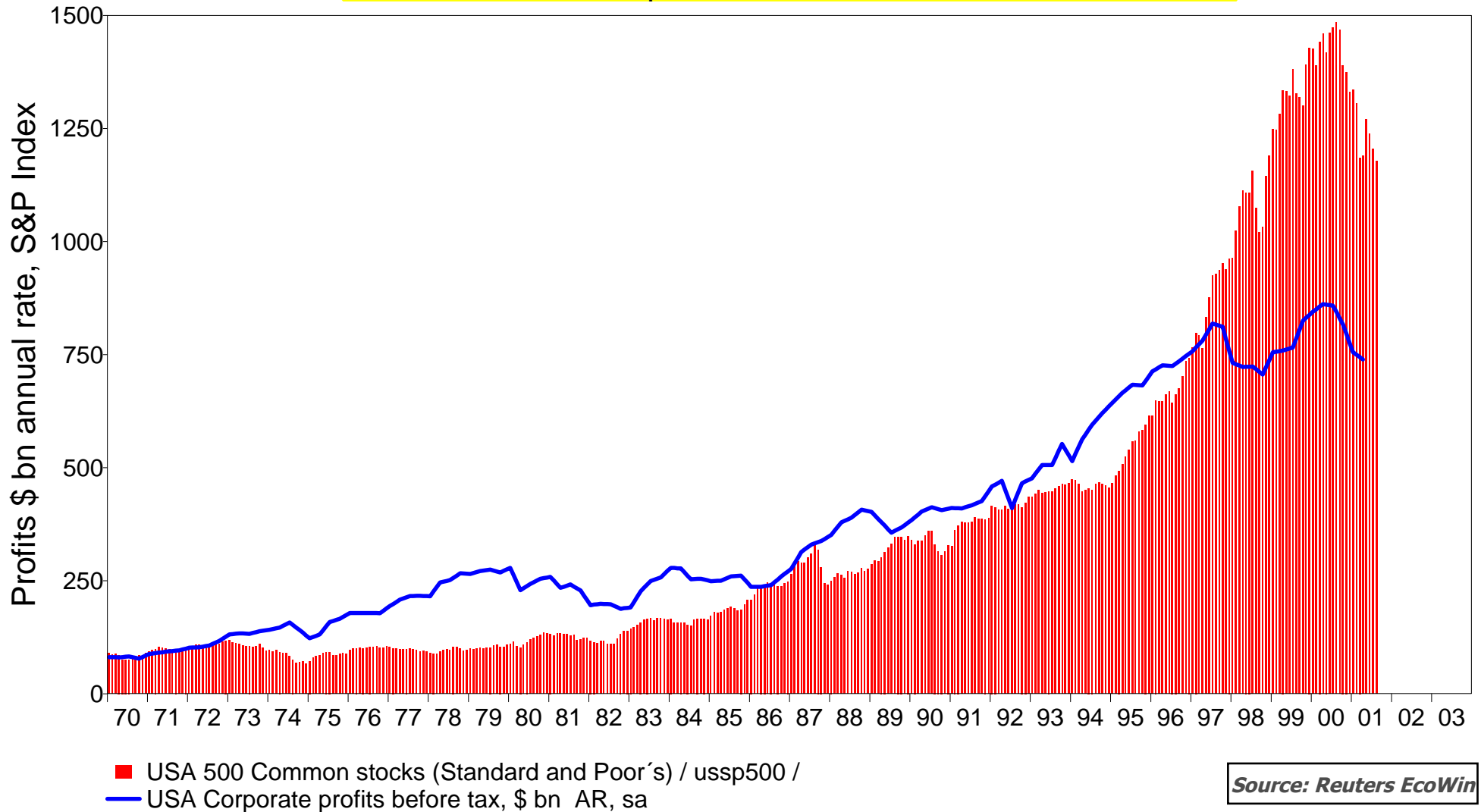
► [Klädbutiken boo.com i konkurs - sidan stängs redan i dag.](#) Svenska grundarna misslyckades med



# US Stock Market (S&P) vs Corporate Profits / Aug

**Aug -01**

Profits, actual and expected, used to be basis for stock values

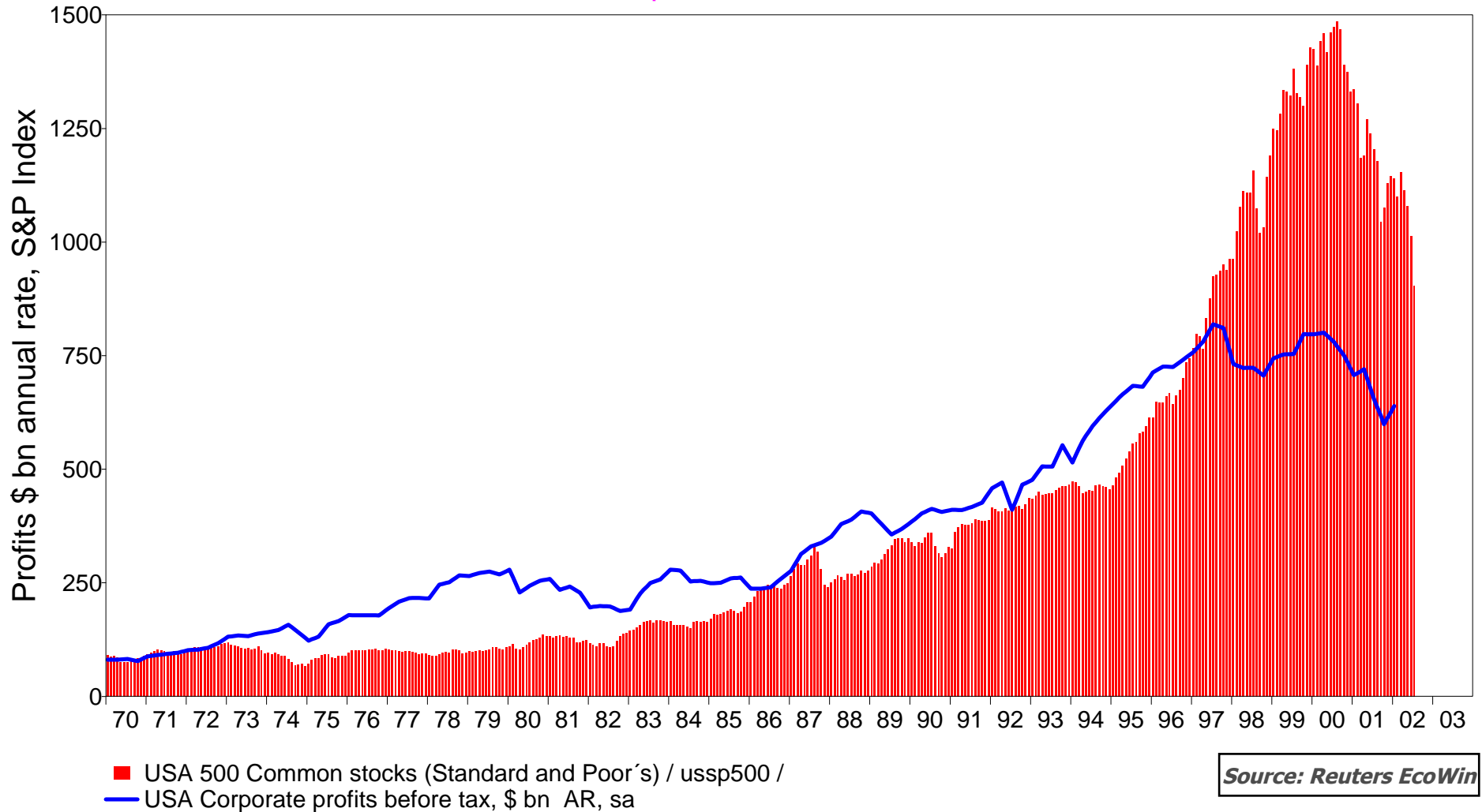


Source: Reuters EcoWin

# US Stock Market (S&P) vs Corporate Profits / Jul

**Jul -02**

Profits, actual and expected, used to be basis for stock values





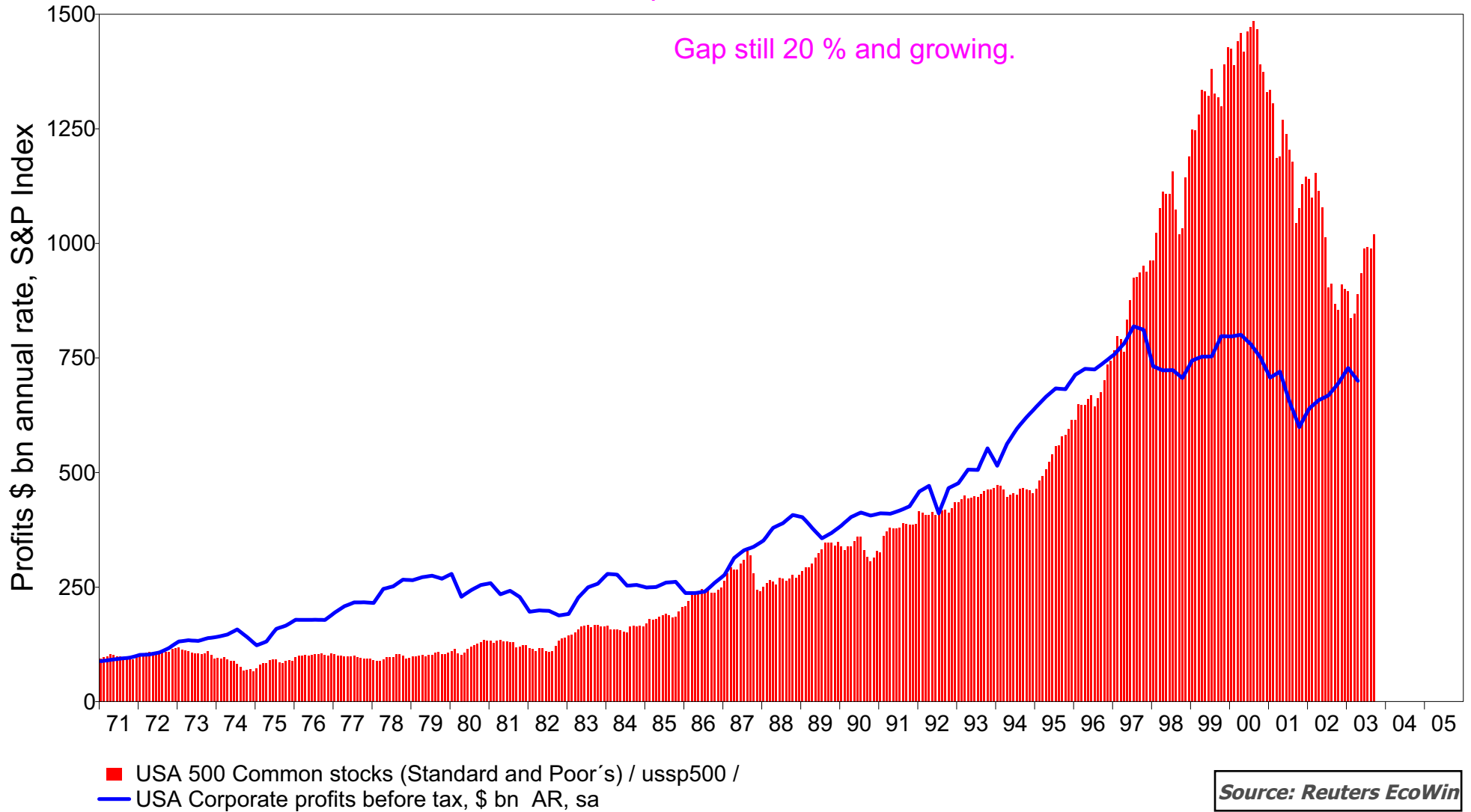
## 3.3 Stock markets 2003-08

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# US Stock Market (S&P) vs Corporate Profits / Sep

Sep -03

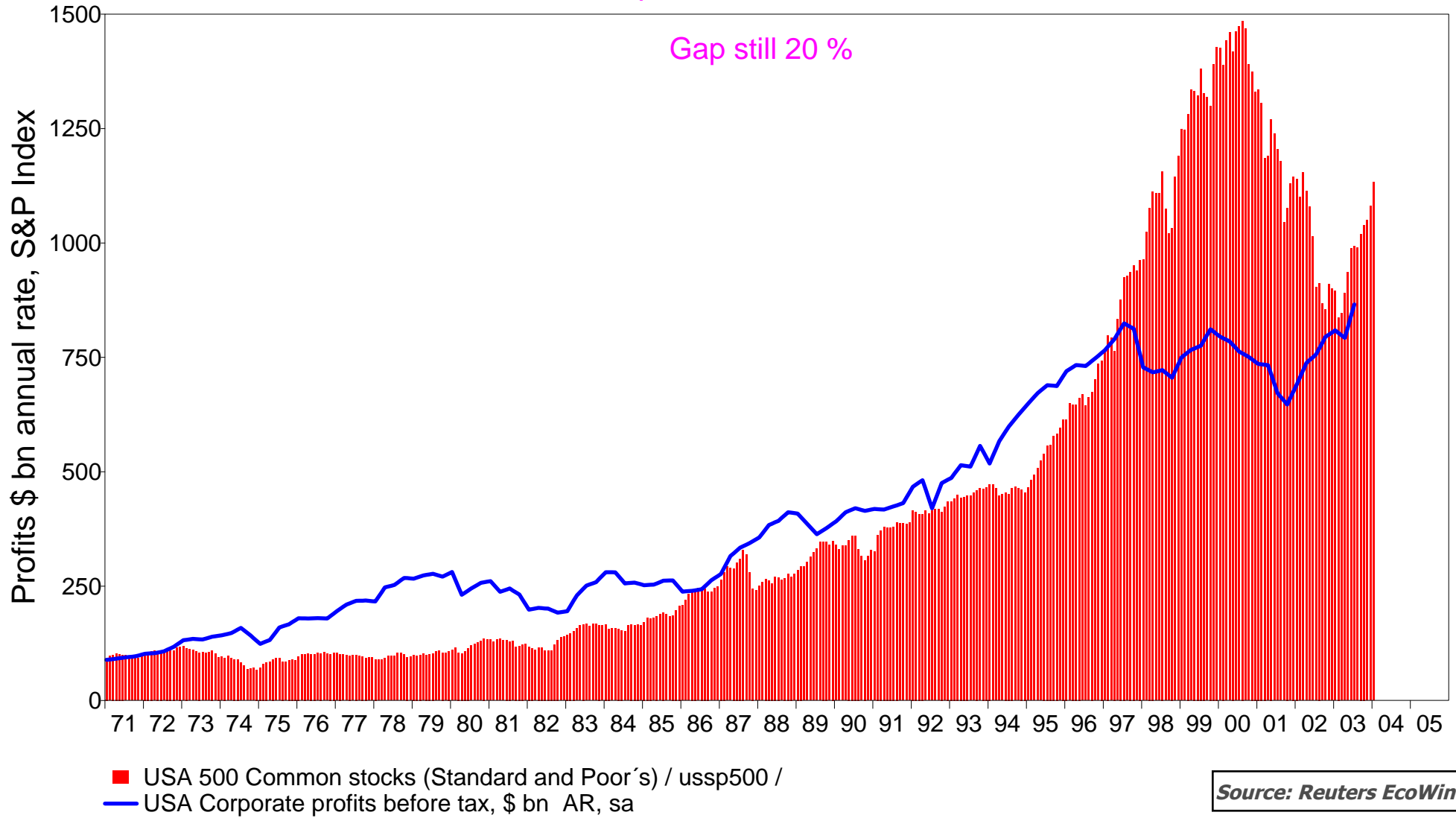
Profits, actual and expected, used to be basis for stock values



# US Stock Market (S&P) vs Corporate Profits / Jan

Jan -04

Profits, actual and expected, used to be basis for stock values

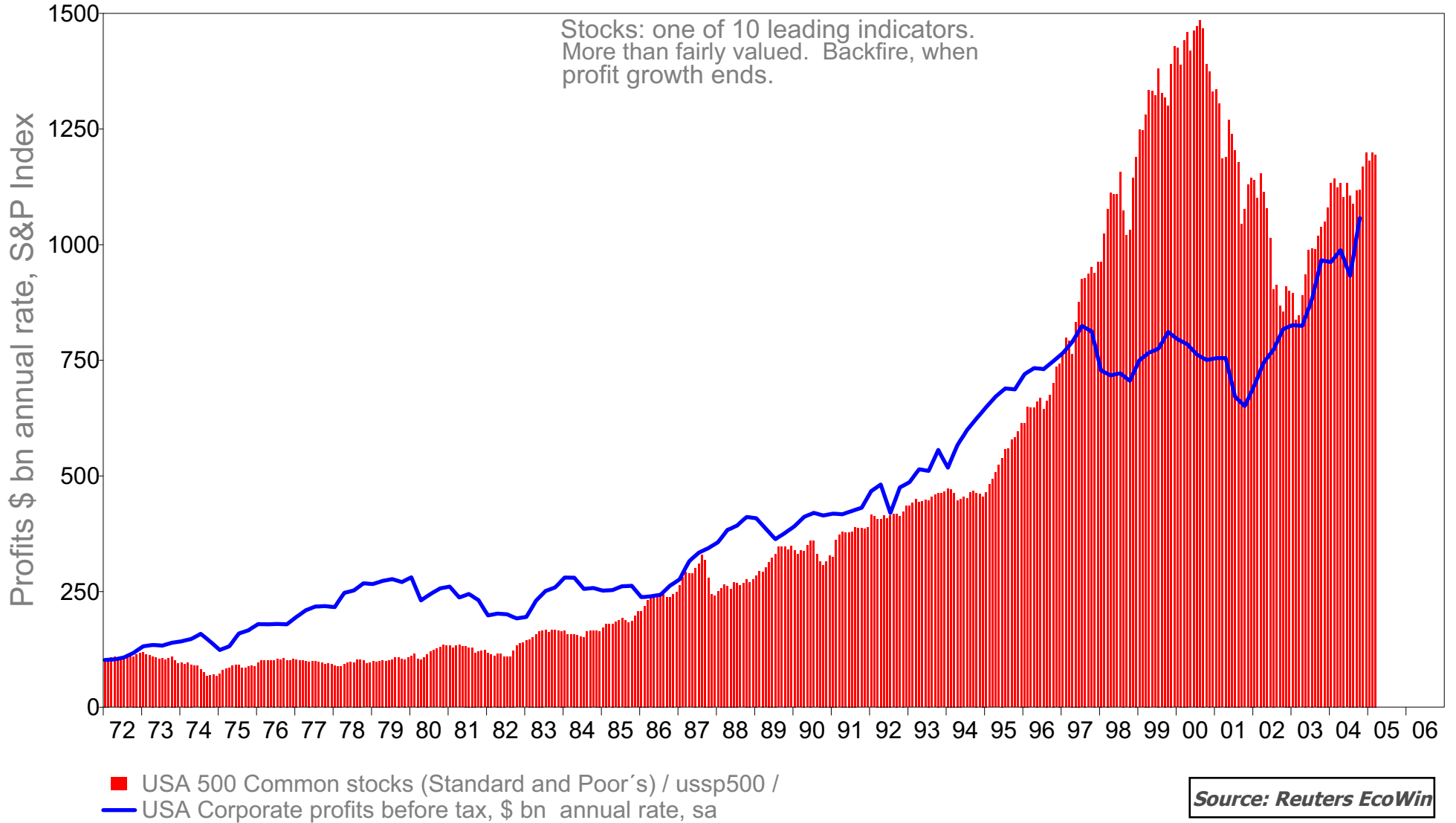


# US Stock Market (S&P) vs Corporate Profits / Mar

Mar -05

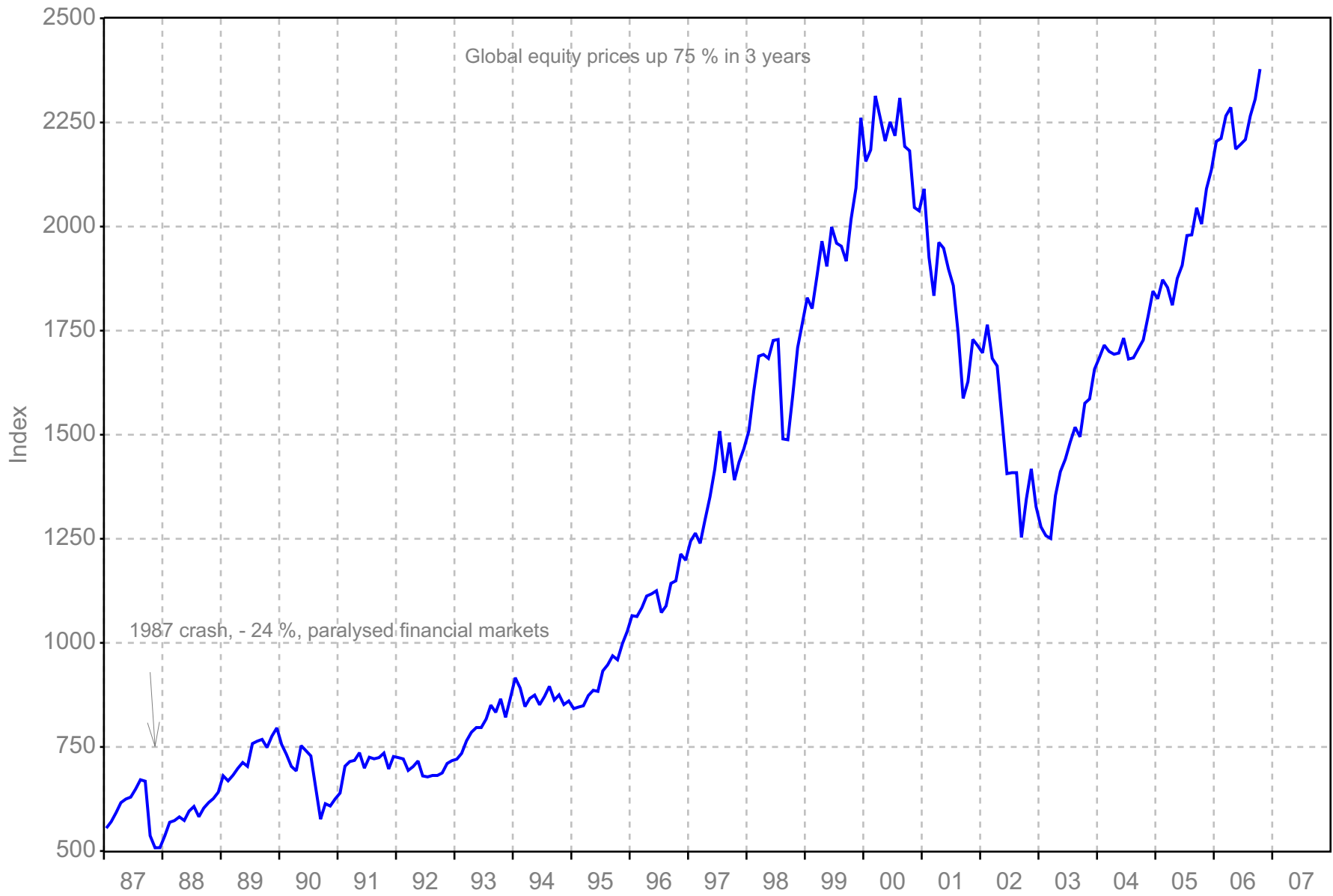
Profits, actual and expected, used to be basis for stock values

Stocks: one of 10 leading indicators.  
More than fairly valued. Backfire, when  
profit growth ends.



# World Equity prices / Oct

Oct -06



Composite stock price of 23 developed countries, local currency (roughly OECD) / wrldstock /

Source: Reuters EcoWin

## Financial market risks, Mar-07

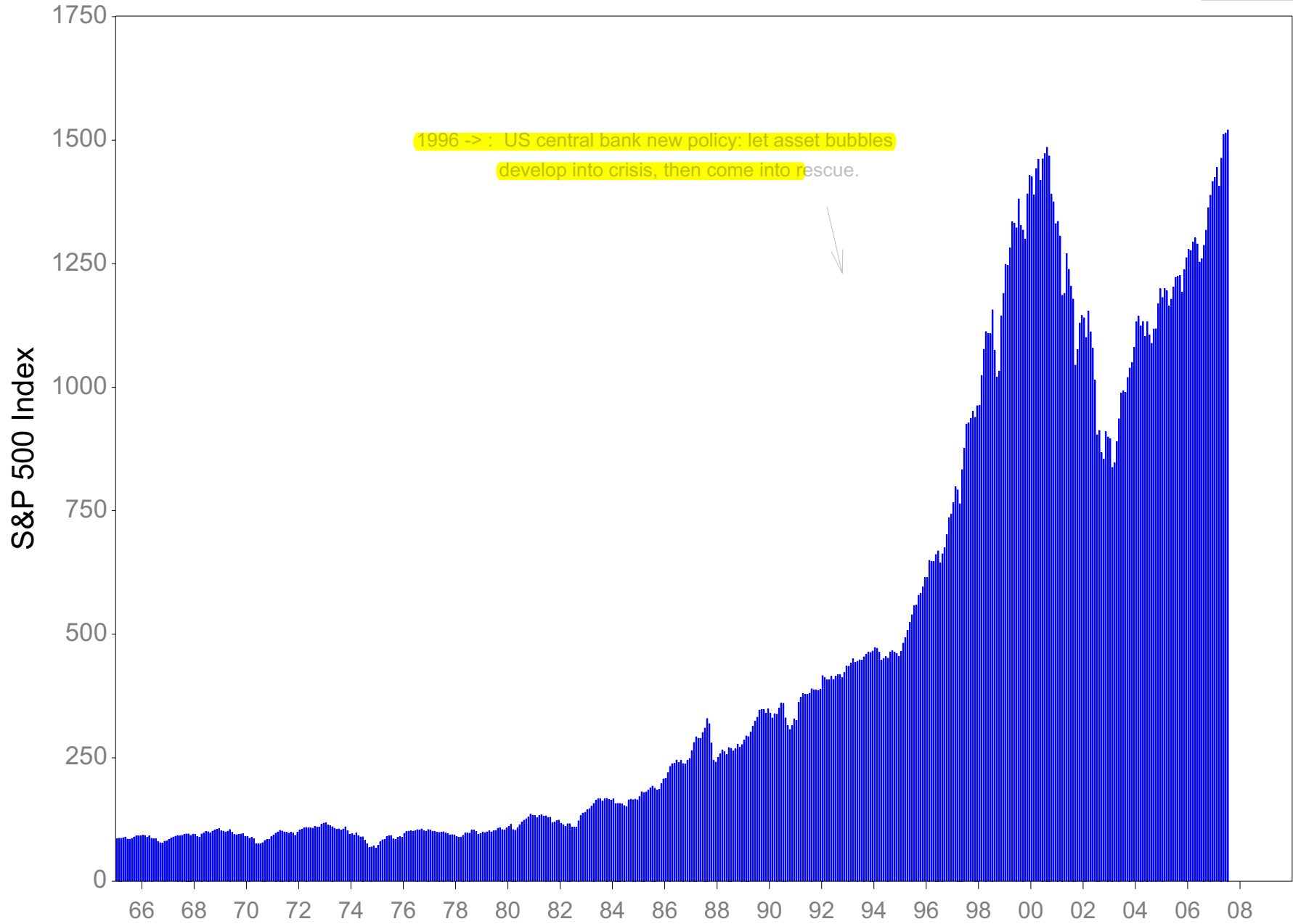
OECD business cycle has turned down. Develops either gradually to a traditional inventory&investment downcycle or to a financial market shake-up. Long upturn has created extremes that may unwind suddenly.

**Stock prices:** Basic economic rule says, competition drives the price of an object close to the cost. The *cost* of shares is the cost of, mostly physical, *assets* that create the profits (corporate net worth). Stockbuyers are only interested in the milk, not in the cow. In relation to profits, stocks are moderately priced (price-earnings ratio), but *companies are expensive* if you buy them *in stock market*. If you, instead, build an average company from scratch, you get a business with brand new facilities and still have 30-40% left compared with purchase via stock. Something waits for correction: profit levels, stock prices or competition framework.



# US Stock prices, S&P 500 / Jul

Jul -07

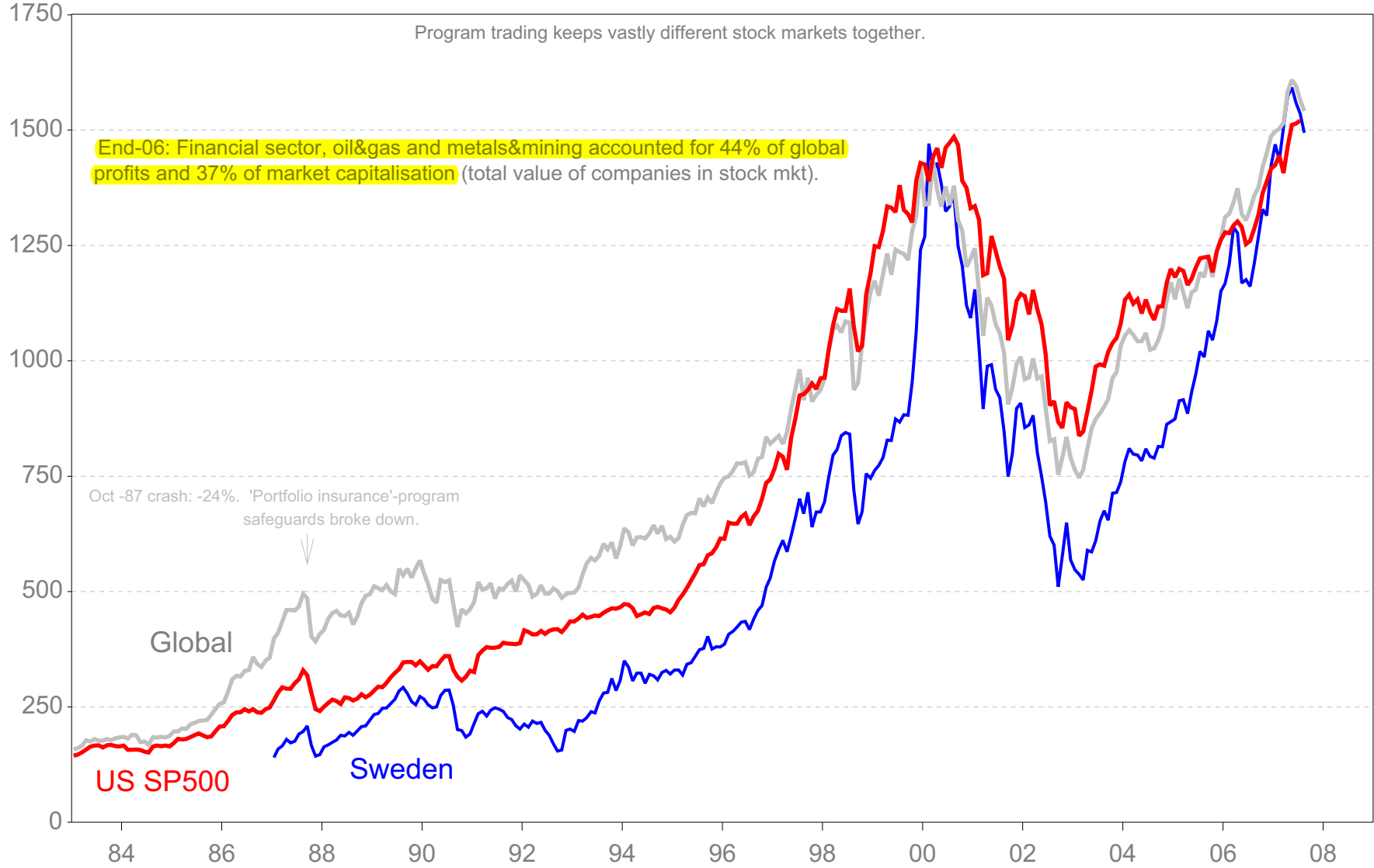


Source: Reuters EcoWin

# Stock Market Correlations US vs Global, Sweden / Aug

**Aug -07**

Correlation US/World 0.99, US/Sweden 0.96. Coincide.



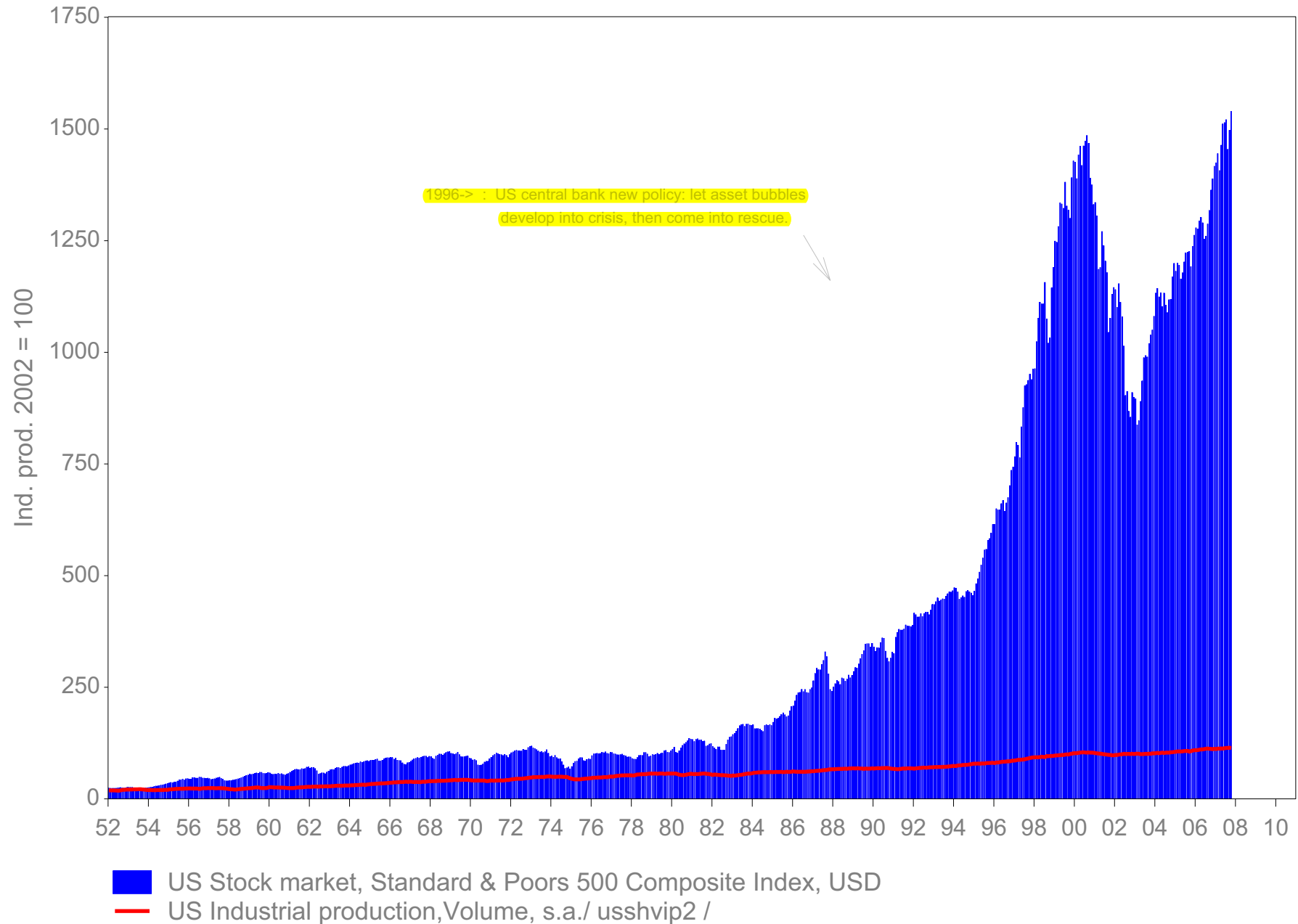
- Sweden OMXS index (level adjusted)
- World stock market index, MSCI World, US \$
- USA 500 Common stocks (Standard and Poor's) / equstockveu /

Source: Reuters EcoWin

# US Stock prices vs Industrial output / Oct

**Oct -07**

Till early 80's, wealth generation was related to industrial production

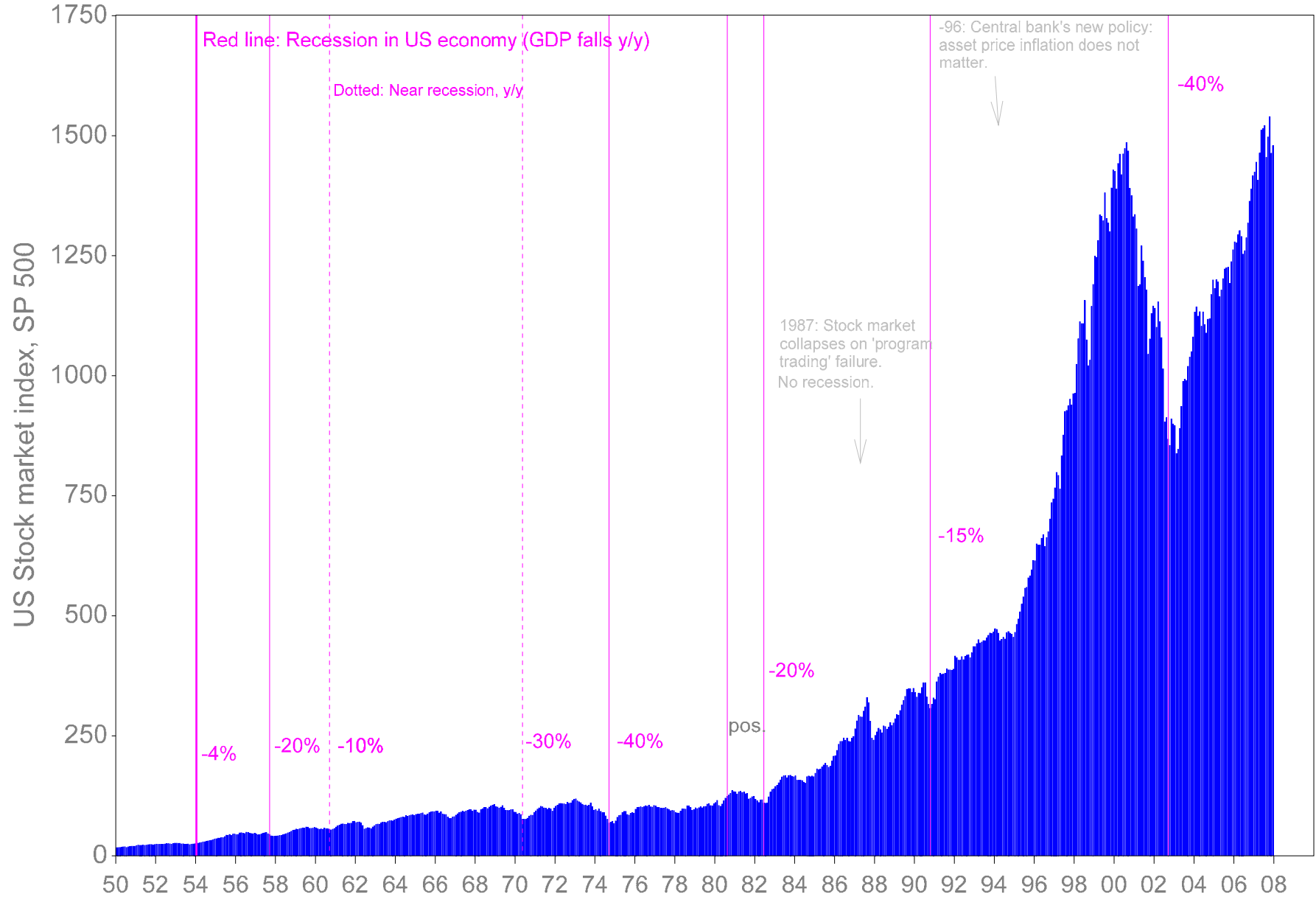


Source: Reuters EcoWin

# US Stock market in Economy's Recessions

Jan -08

-4%: Stock market change in recession period, from preceding peak to bottom

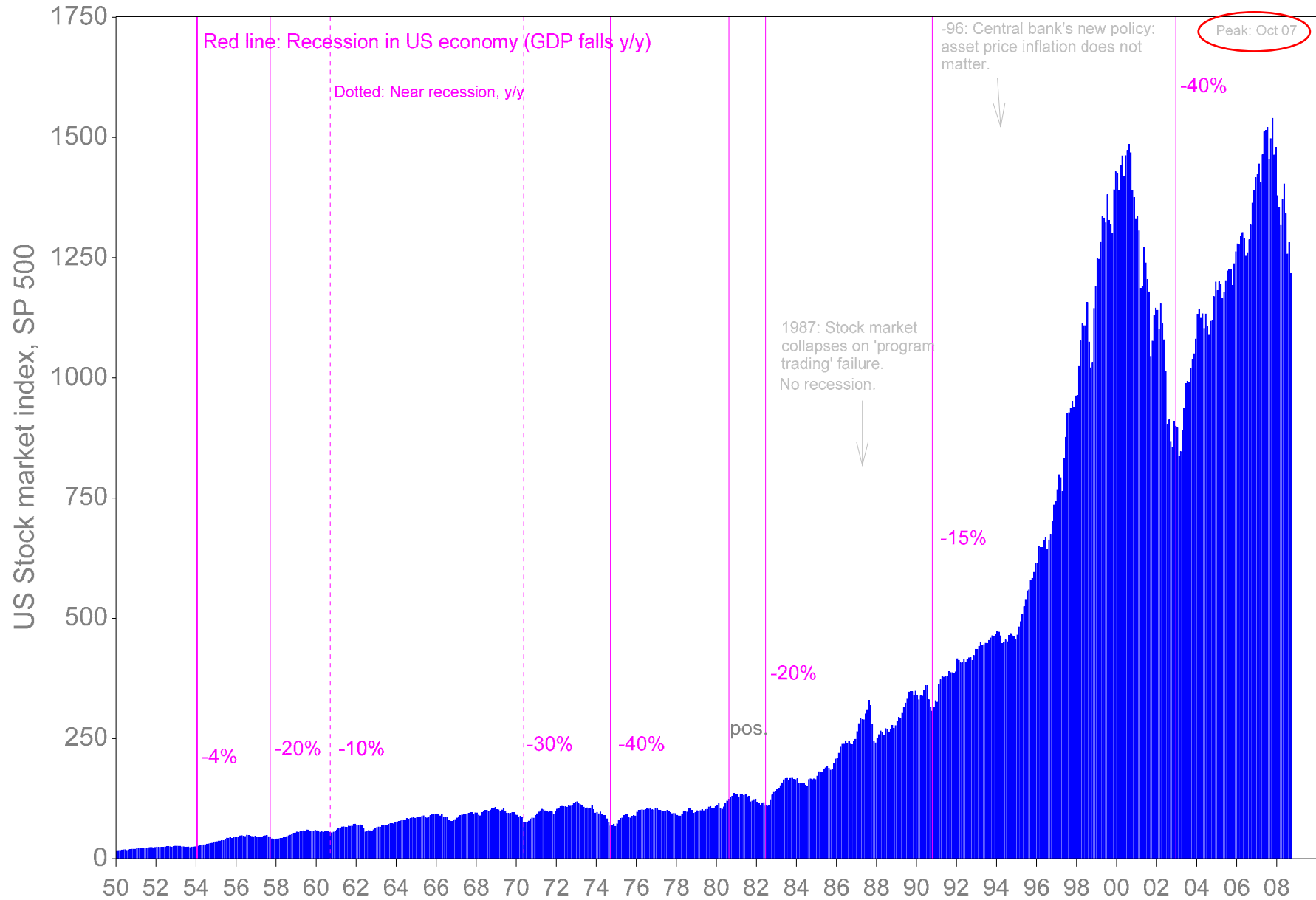


Source: Reuters EcoWin

# US Stock market in Economy's Recessions / Sep

**Sep -08**

-4%: Stock market change in recession period, from preceding peak to bottom



**Source: Reuters EcoWin**

## Global market, Apr-08

- **Macro&Financial:** Official estimate on losses in credit crises was raised to \$1000bn. As an absolute value, highest damage in history. Banks will book half of the losses, insurance companies, pension funds, hedge funds and others the rest. Two thirds of the losses is not officially revealed so far; less than half of that will be outside US. Some firms need not to do writedowns constantly, they can wait to the maturity of the papers. Abrupt end to US experiment with Darwinian self-regulating economy where prices clear the market, competition creates the dynamics and smart financial actors keep extremes at bay. Government needs only to control the supply and price of money, not lending - in spite of convincing evidence markets will boil over. Ever since money became the intermediary in exchange of goods, money dilution has occurred. In the past three centuries, public intervention was needed 35 times - in major economies only - to rescue a most vital national asset, credibility of the financial system. Same pattern always: money is created faster than everyday work is done. Excess money in the system leads to rising prices, the momentum attracts more money which drives prices further up until the bubble collapses on its own weight. If the end is classical so is the motivation at the beginning: this time is different. This time, 2003-07, complex financial innovations created a shadow banking system which flooded market with its own money. Blended with government money, it ended up in non-productive investments and activities. How much synthetic money is in circulation, can be estimated from financial institutions' losses (writedowns) + latent inflation. In March, inflation finally reached world's consumers. Not because of rising wage costs but through commodities, food and energy. Commodities was the latest asset group created for ordinary fund investors and the last one in upturn. You can make bets on price of wheat, frozen orange juice, live cattle, nickel, oil etc. Speculative actors in futures markets evidently contributed to recent commodity price boom. House prices globally still *appreciate*, not *inflate*, but authorities have started to doubt.

# MANIAS, PANICS & CRASHES 1700-2007

Financial crisis where *Lender of last resort* had to intervene

Source: Charles P. Kindleberger

Century	Speculations led to crisis Speculation periods per century & object		Countries
1700	8	South Sea Stocks; Commodities; Housing, canals; East India co; Bonds; Canals; Securities, canals; Commodities	UK, NL, US, Gy
1800	12	Exports; Manufacturing; LatAm bonds, mines, cotton; Canals, cotton; Cotton, railroads, land; Railways, wheat; Railroads, wheat, land; Railroads, wheat; Cotton, shipping co's; Bank stocks; IPO's, Argentine securities; Gold, silver, land	UK, US, Fr, Gy, It
1900	12	Coffee, Union Pacific; Securities, ships, commodities; <b>Land, stocks</b> (great depression); Currencies (58-73); Stocks, buildings, tankers, Boeing 747's; 3rd world loans, \$, oil, real estate; Stocks, housing, \$; Stocks, real estate; Deregulation; Deregulation	US, EU, Jpn, Mex SE Asia, Russia
2000	2	2000-01: IT stocks, dot.com IPO's (Near crash->aggressive interest rate cuts by US central bank. Created the next event.)	Global
		2007: Housing & Subprime loans. On watch: Spanish and Chinese properties.	US + ?

56/100

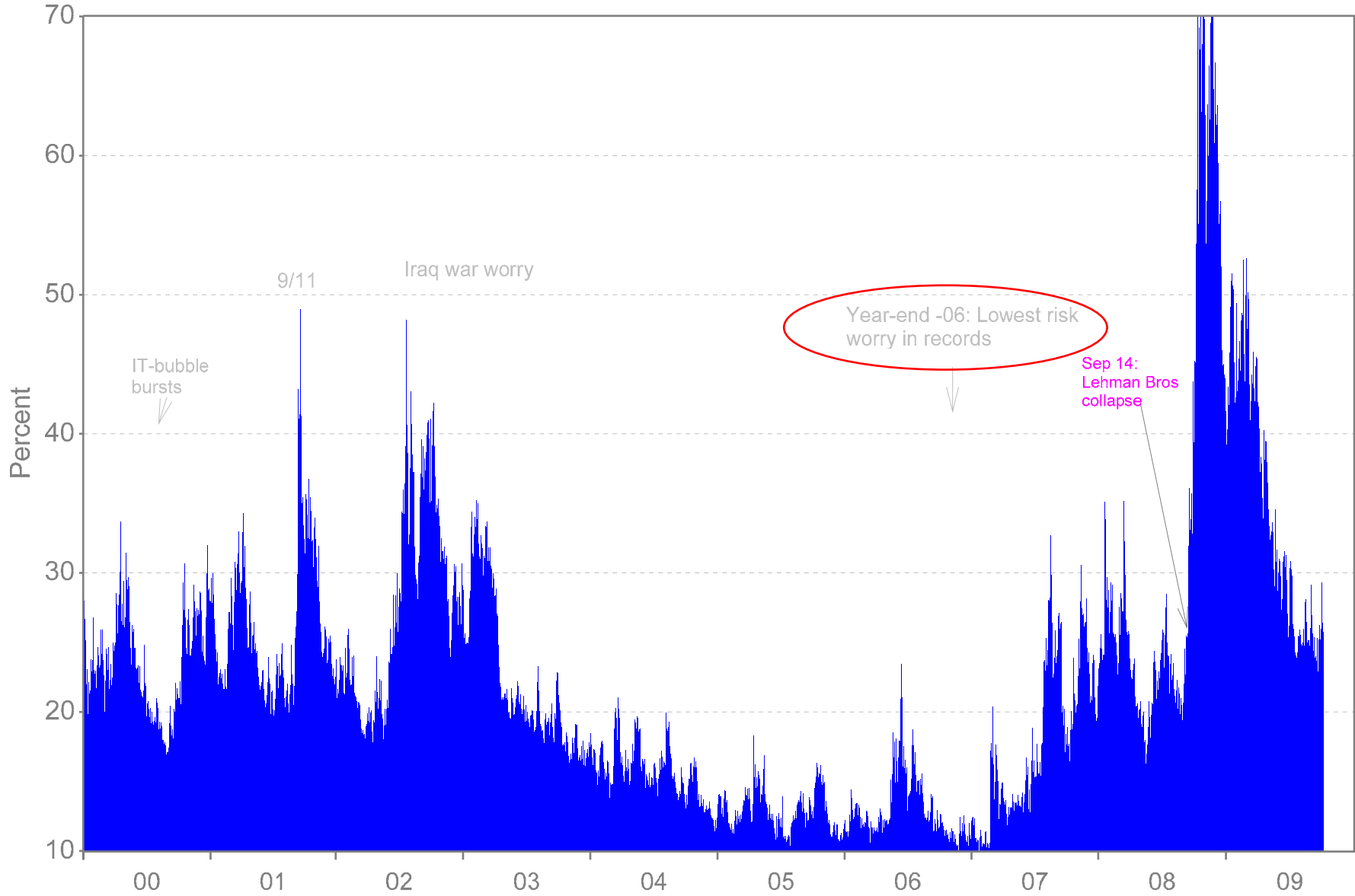


Epilog:  
After Lehman



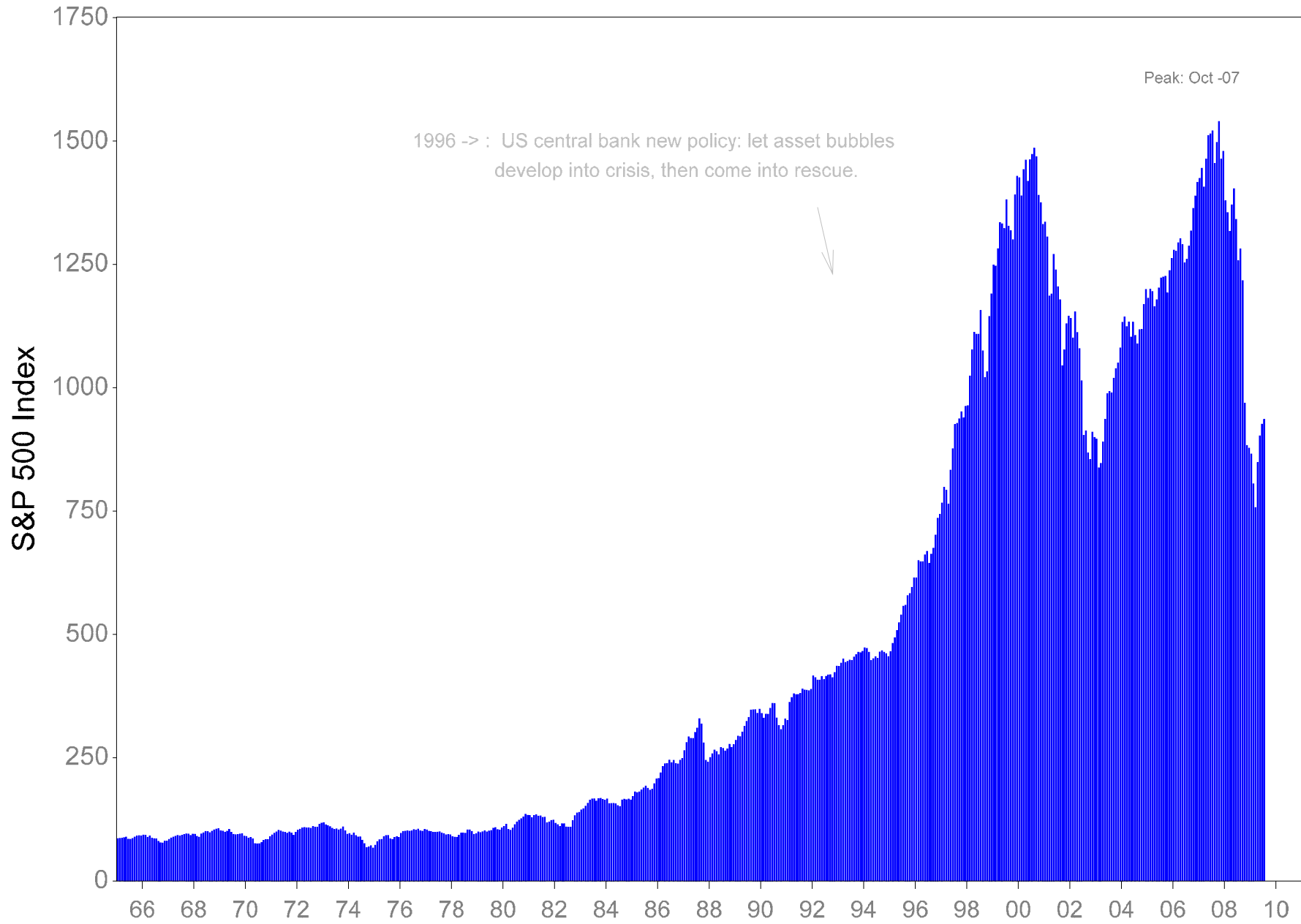
# US Stock Market 'Fear Index' / Aug 7: 25

Stock market volatility index: higher value (larger variation) -> greater worry, risk for big fall



US CBOE Volatility (Vix) Index / eqvolatility /

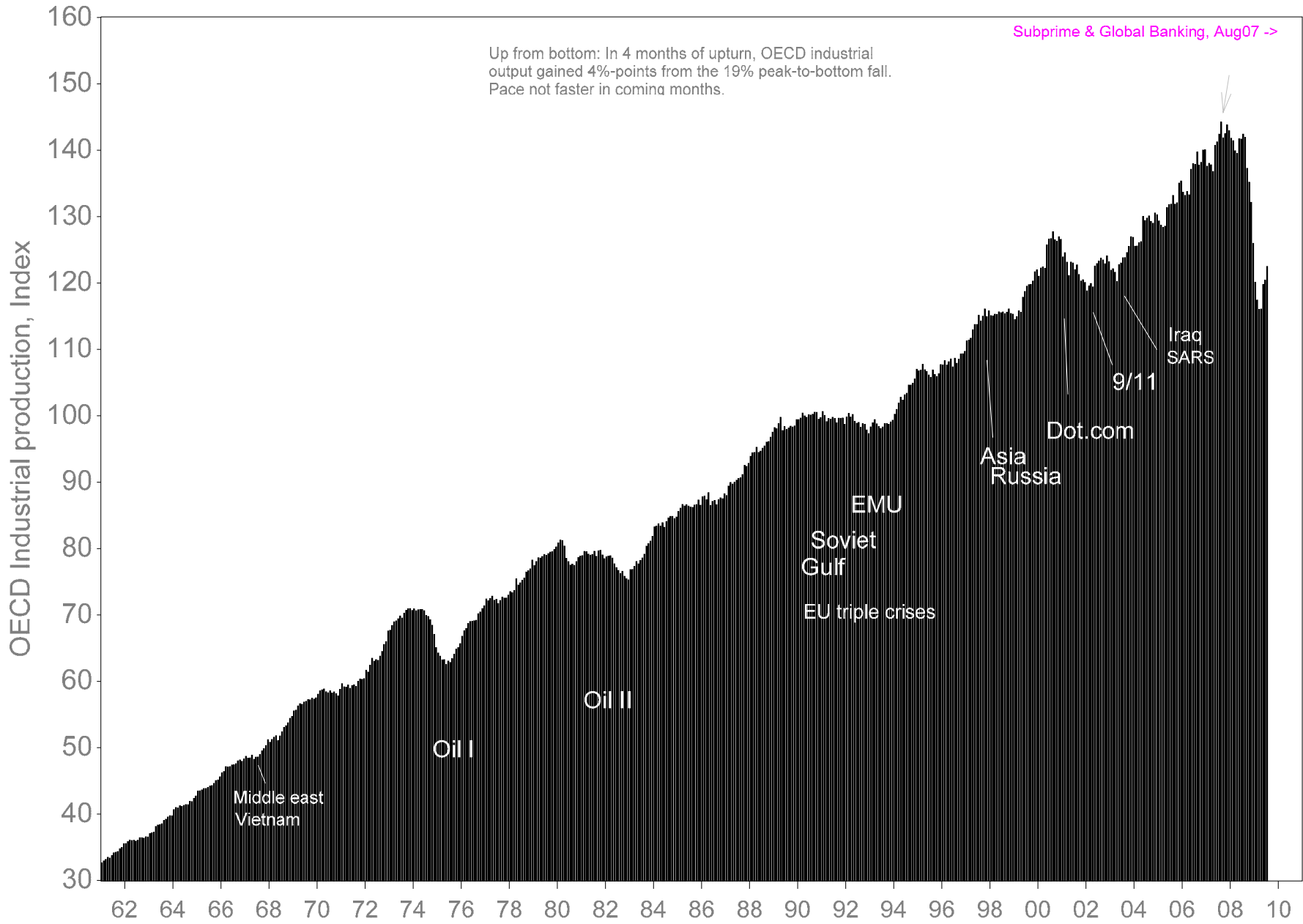
# US Stock prices, S&P 500 / Jul 2009



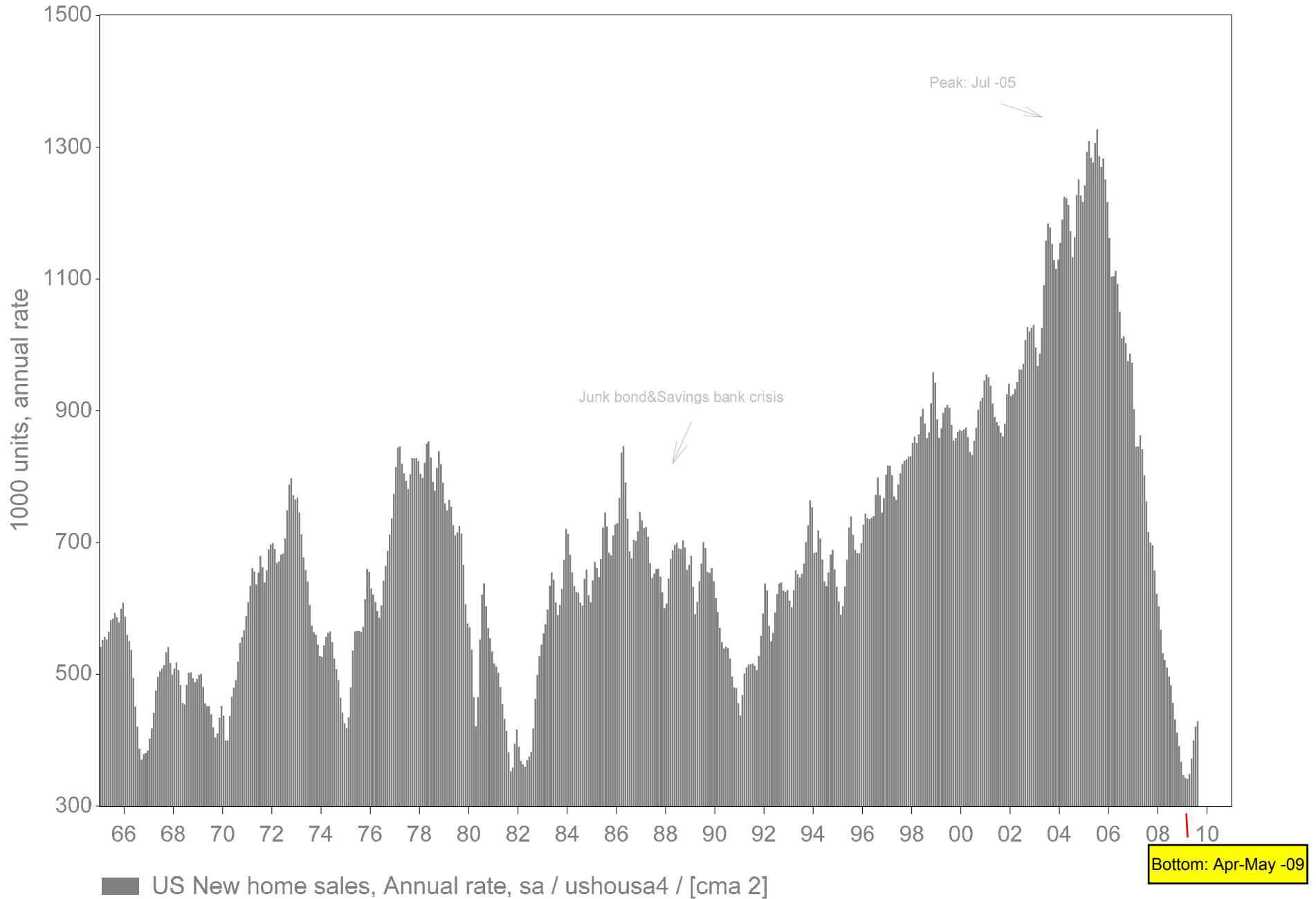
## Global market, Oct-08

- **Why media does not make news on economic crises *before* they happen ?** They do, but not on front page. Since 2005, there was louder and louder alarms by seasoned experts - increasing imbalances, unsustainable prices - that collapse is waiting. Warnings even got public attention. But there is only one big trend at a time and media has to reflect it. The thing was great global real economy, best in decades. But excesses grew on the asset side - in stocks, funds, loans and housing. Alan Greenspan, then US central bank chief, testified recently he made mistake in believing in 'the self-interest of organisations to protect their own shareholders'. Media could not turn the high spirits of the financial markets. A big event was needed. Then mood changed suddenly and the new one started to dominate.

# OECD Industry in External crises / Jul (est)



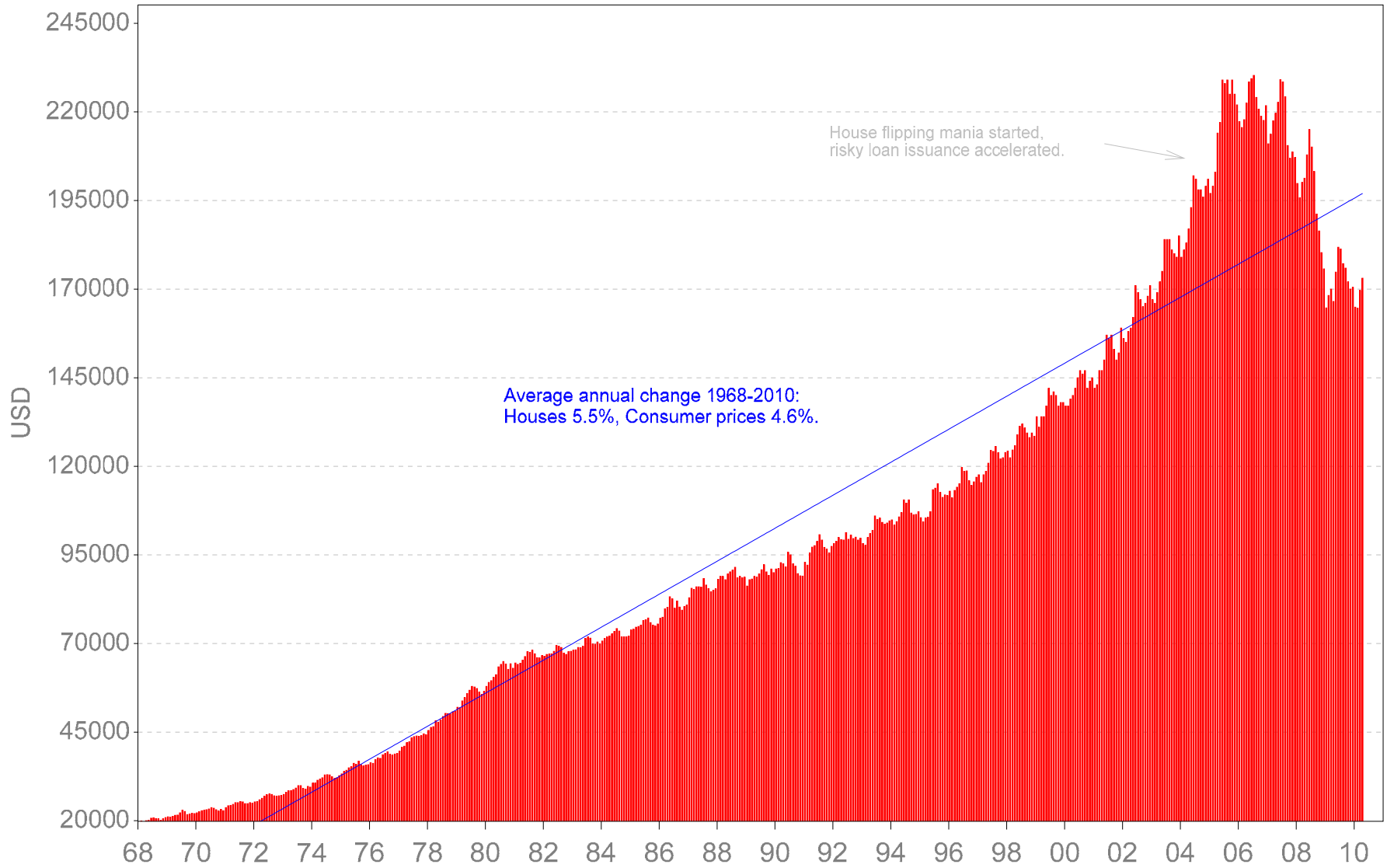
# US New home sales / Aug



Source: Reuters EcoWin

# US Existing Home Price / Apr 2010

Median price nationwide.

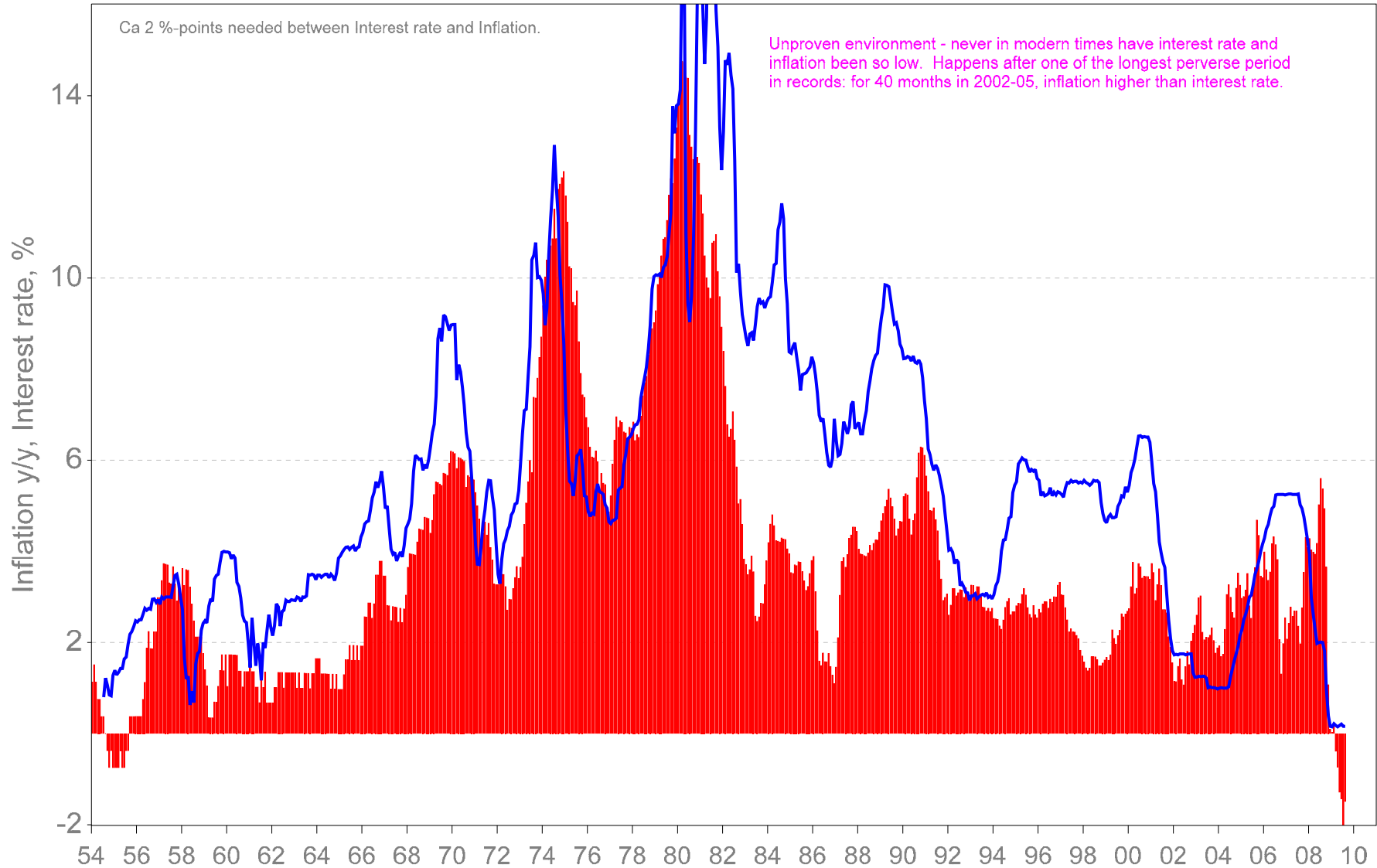


- Single-Family and Condos, Median price, USD / ushouspr
- United States, Existing-Home Sales, Single-Family and Condos, median price [trend]

Source: Reuters EcoWin

# US Interest Rate vs Inflation / Aug

Correlation 0.77. Coinciding.

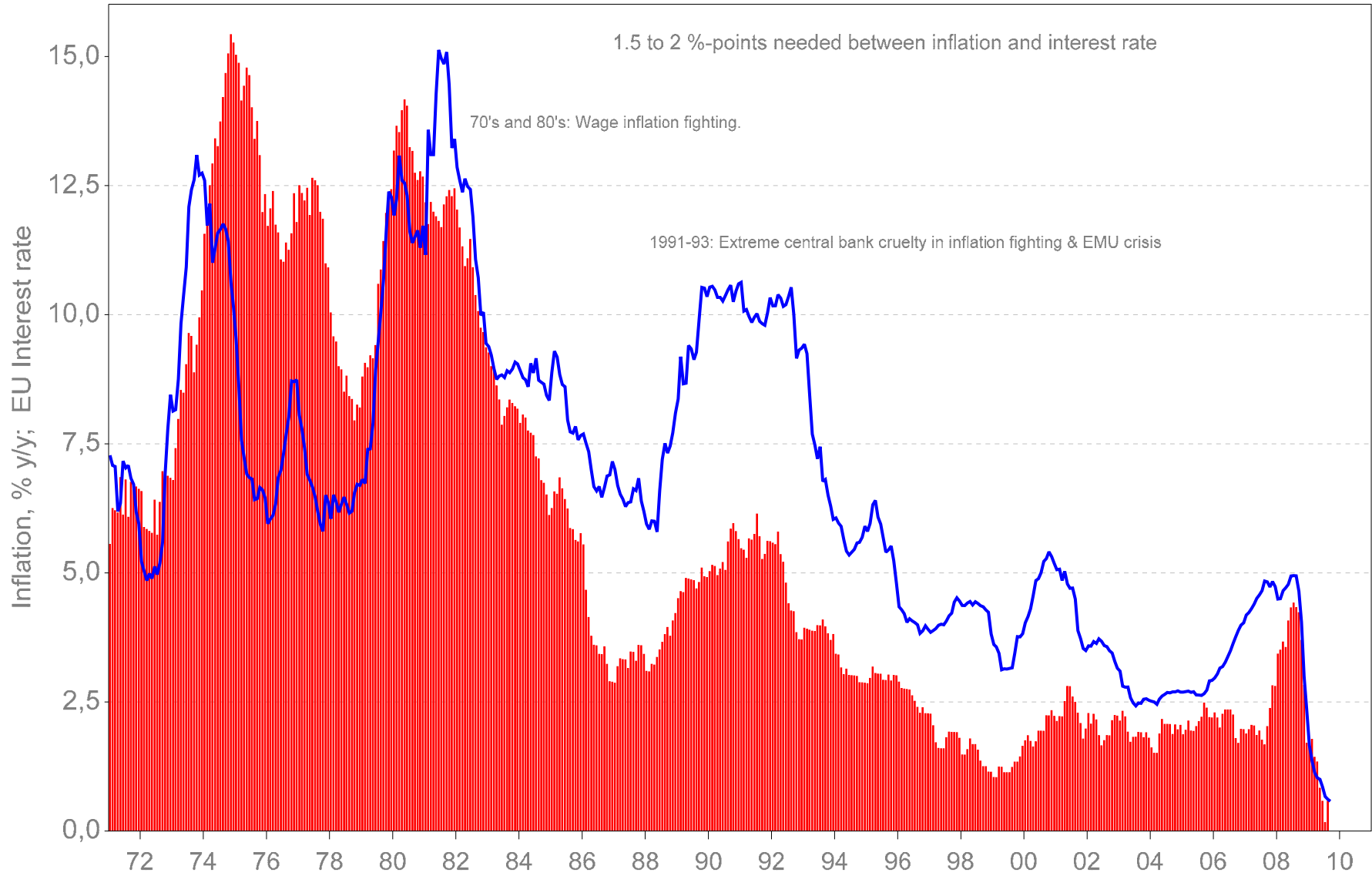


- US Inflation: Consumer Price Index, all items [c.o.p 12 obs]
- US Interest rate, Federal Funds / usinflsh2 /

Source: Reuters EcoWin

# EU Inflation and Interest rate / Aug

Correlation 0.88. Inflation leads 3 mths



■ Inflation: EU Consumer prices / euconspr / [c.o.p 12 months]  
— Weighted Interest rate Gy,Fr,UK

**Source: Reuters EcoWin**





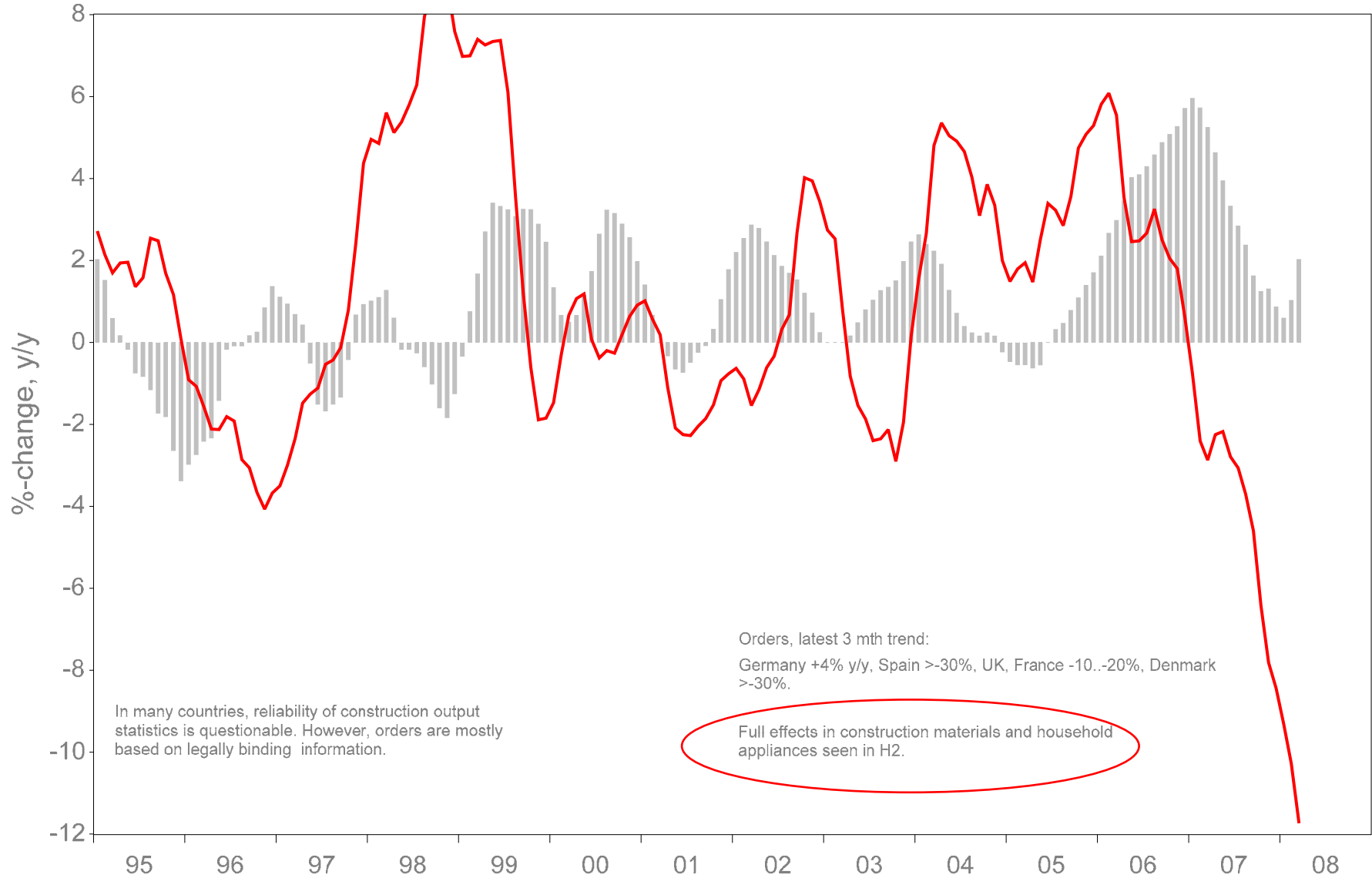
## 4. Steel: Downturn 2008

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4.1 EU Forward indicators Mar-Jun 2008

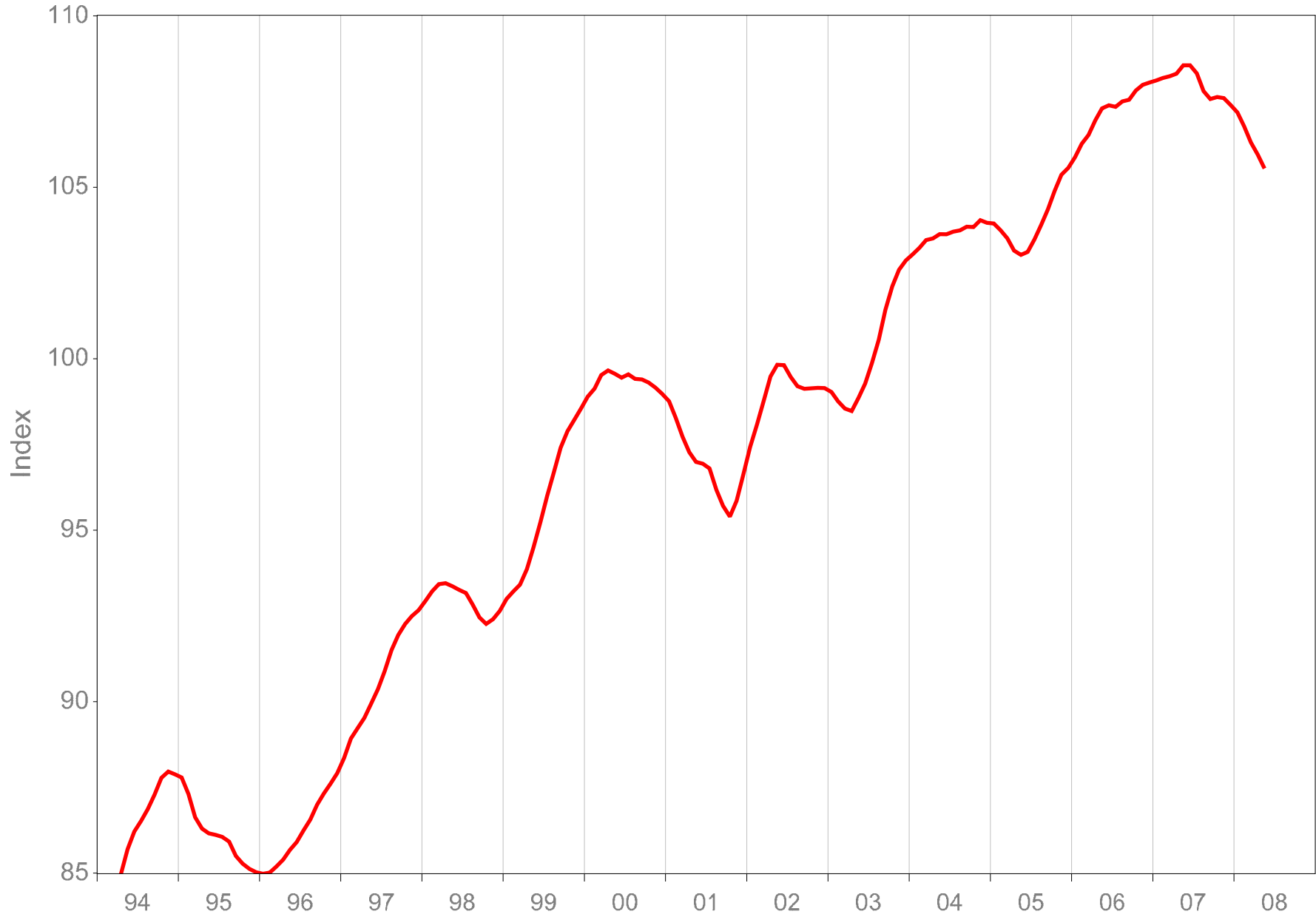
# EU Construction Output and Orders / Mar

Correlation 0.40, asymmetrical. Output lags 4-7 mths.



■ EU25 Construction output [cma 6, c.o.p 12 obs]  
— EU Construction orders, est. /eubyggovp/ [cma 6, c.o.p 12 obs, s.a.]

# EU Business cycle Leading indicator / May

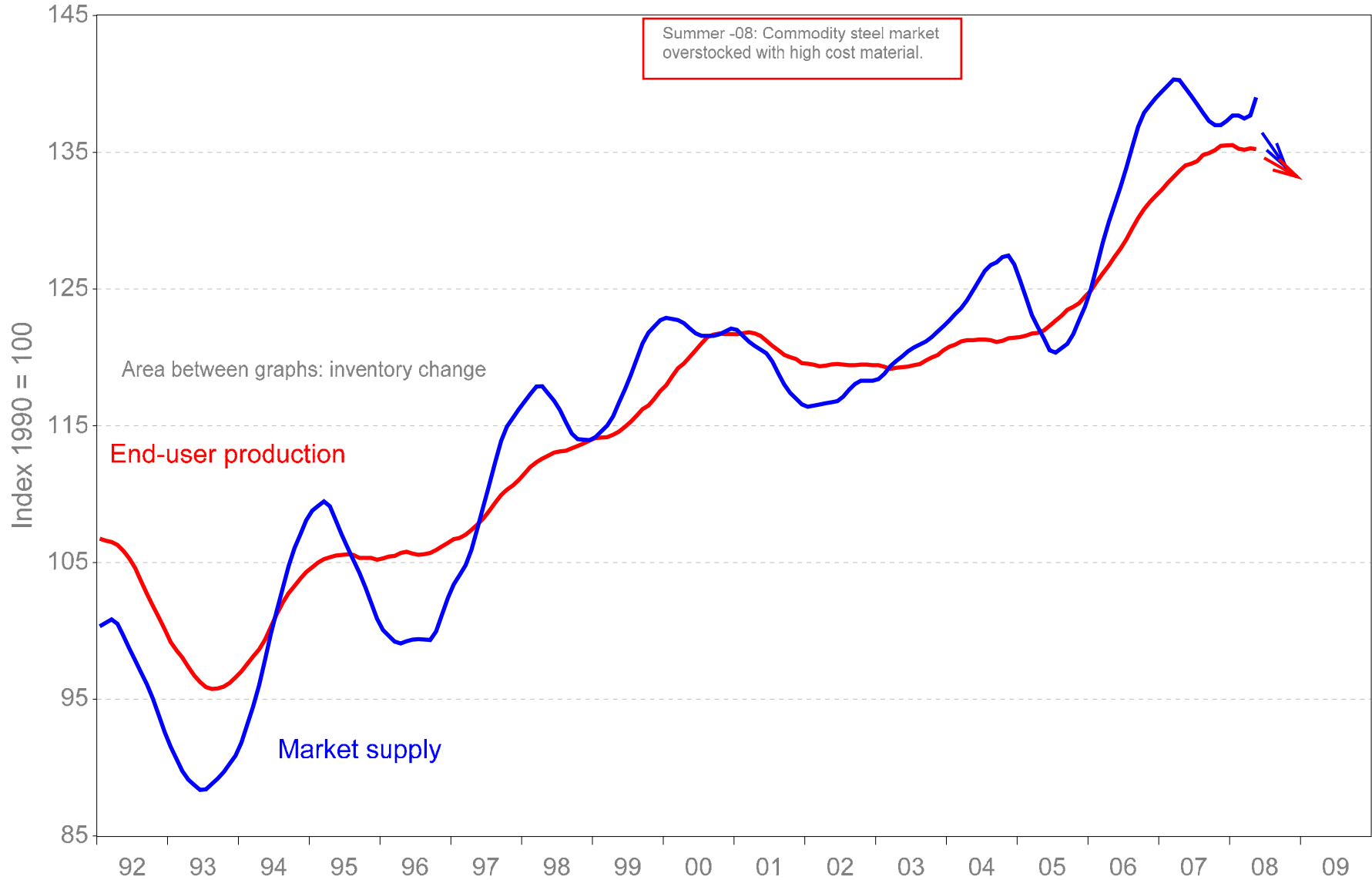


— EU (EMU) Business cycle Leading indicator (OECD) / eulind2 /

Source: Reuters EcoWin

# EU Steel Market Supply vs Steel Consumers' Production / May

Construction 30 %, Machinery 25, Vehicles 20, Metal goods etc 25



- EU25 Steel End-users, aggregate production / eusteu04ms / [s.a., cma 12]
- EU Market supply of Steel (EU Output+Imports-Exports) [rebase 1990 = 100.0, s.a., cma 12]

Steel downturn 2008 (cont..)

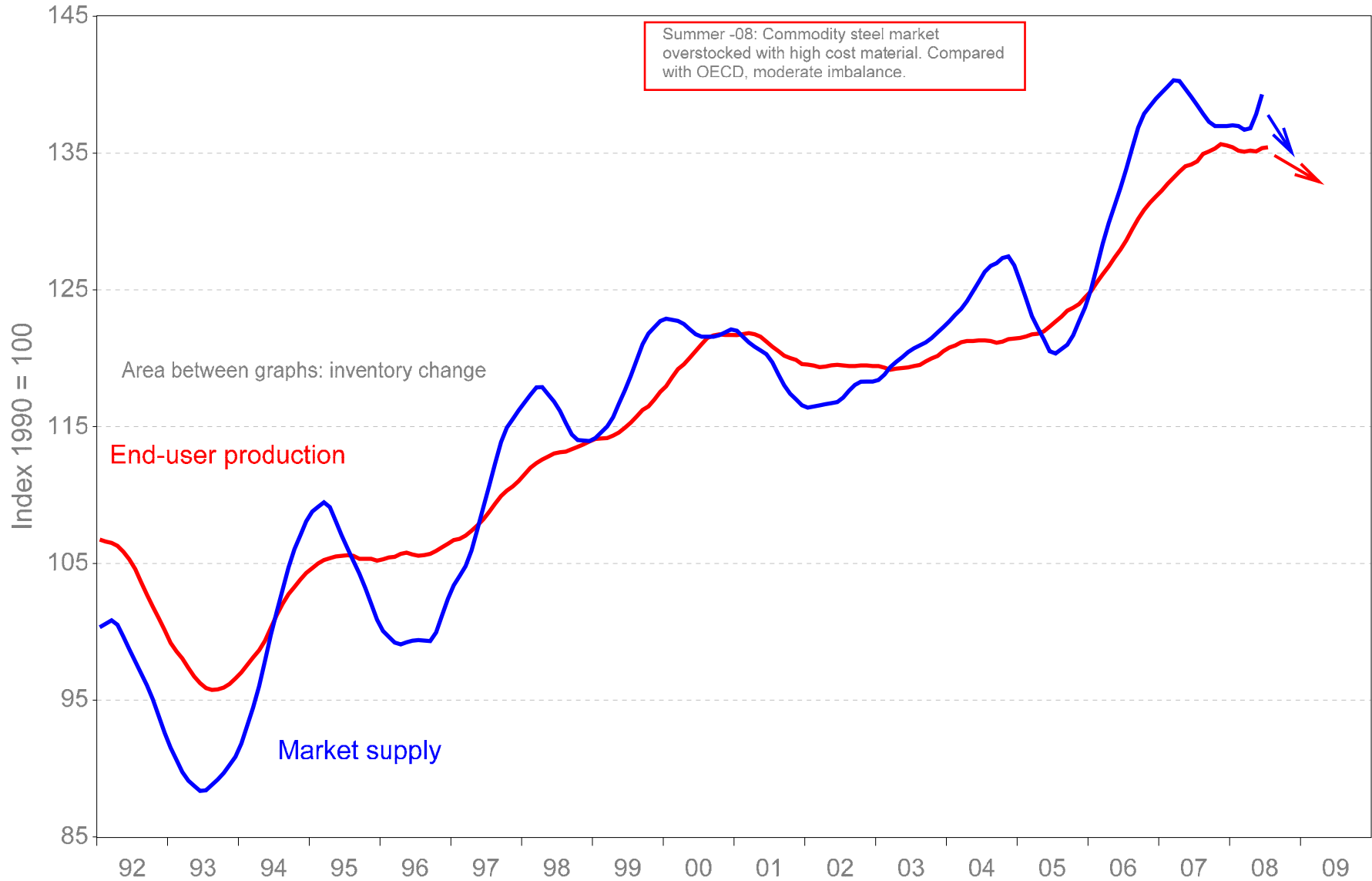


4.2 EU, Collapse Aug 2008 ->

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# EU Steel Market Supply vs Steel Consumers' Production / Jul

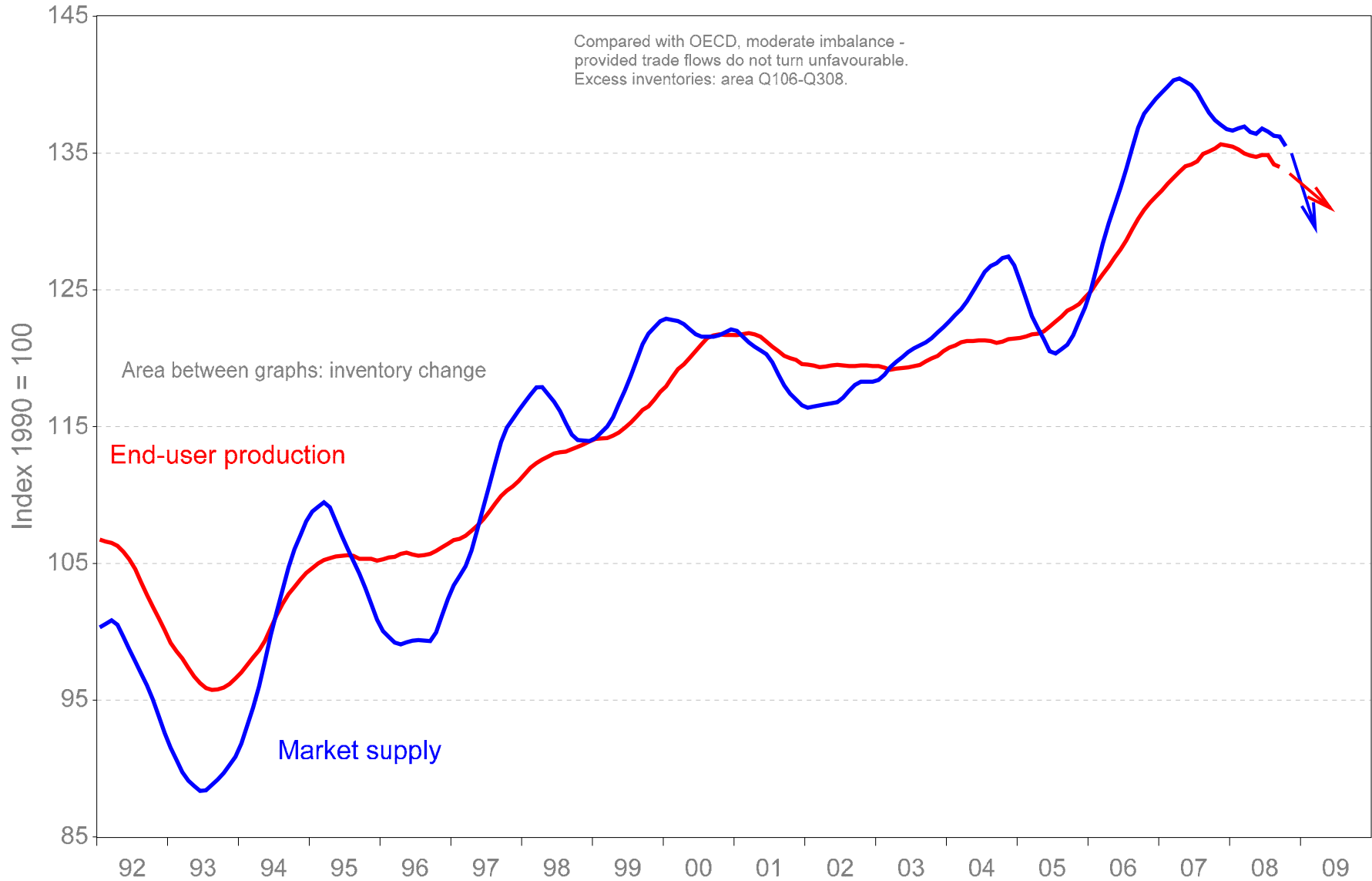
Construction 30 %, Machinery 25, Vehicles 20, Metal goods etc 25



- EU25 Steel End-users, aggregate production / eusteu04ms / [s.a., cma 12]
- EU Market supply of Steel (EU Output+Imports-Exports) [rebase 1990 = 100.0, s.a., cma 12]

# EU Steel Market Supply vs Steel Consumers' Production / Sep

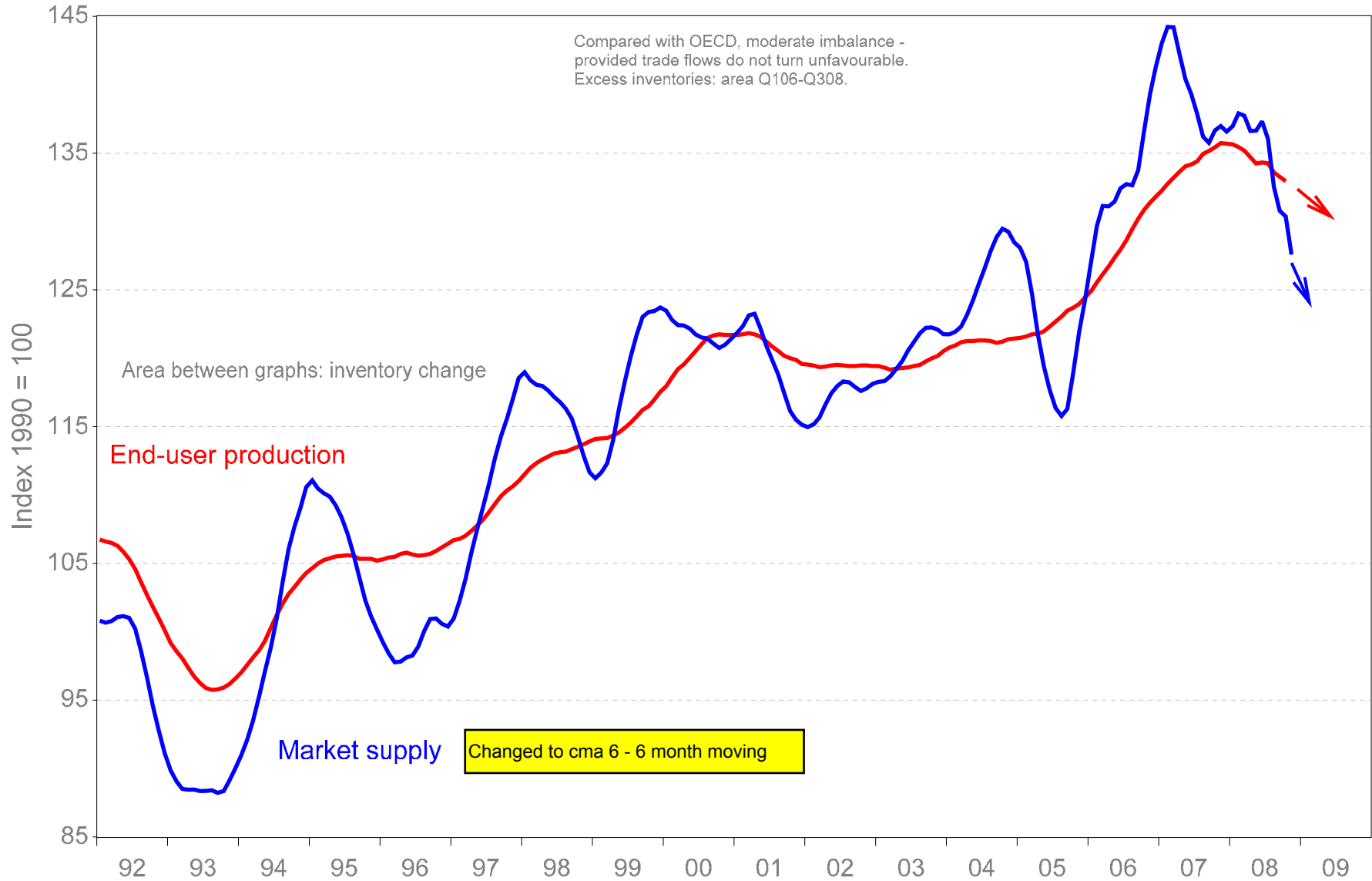
Construction 30 %, Machinery 25, Vehicles 20, Metal goods etc 25



- EU25 Steel End-users, aggregate production / eusteu04ms / [s.a., cma 12]
- EU Market supply of Steel (EU Output+Imports-Exports) [rebase 1990 = 100.0, s.a., cma 12]

# EU Steel Market Supply vs Steel Consumers' Production / Nov

Construction 30 %, Machinery 25, Vehicles 20, Metal goods etc 25

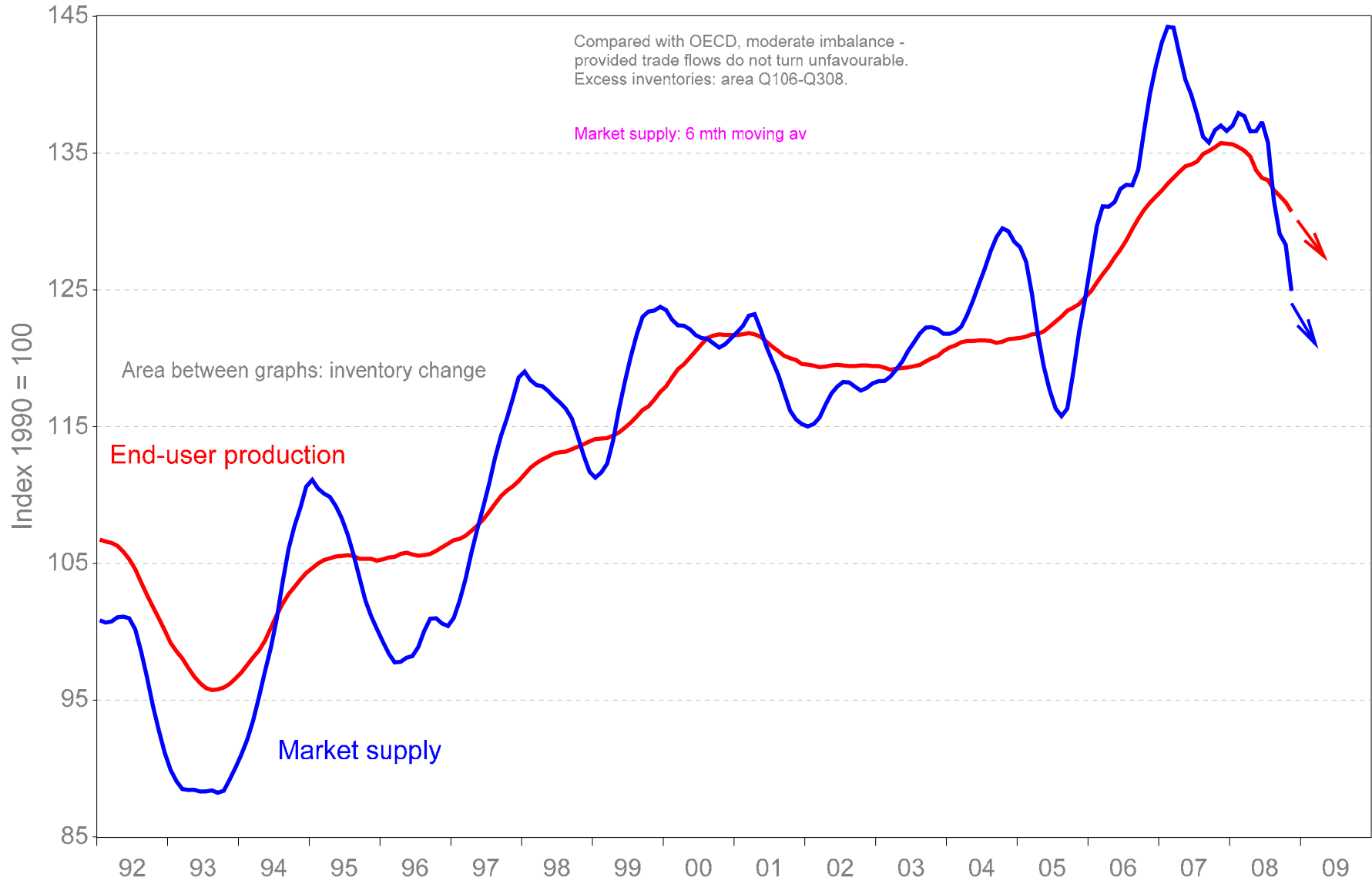


- EU25 Steel End-users, aggregate production / eusteu04ms / [s.a., cma 12]
- EU Market supply of Steel (EU Output+Imports-Exports) [rebase 1990 = 100.0, s.a., cma 6]



# EU Steel Market Supply vs Steel Consumers' Production / Dec

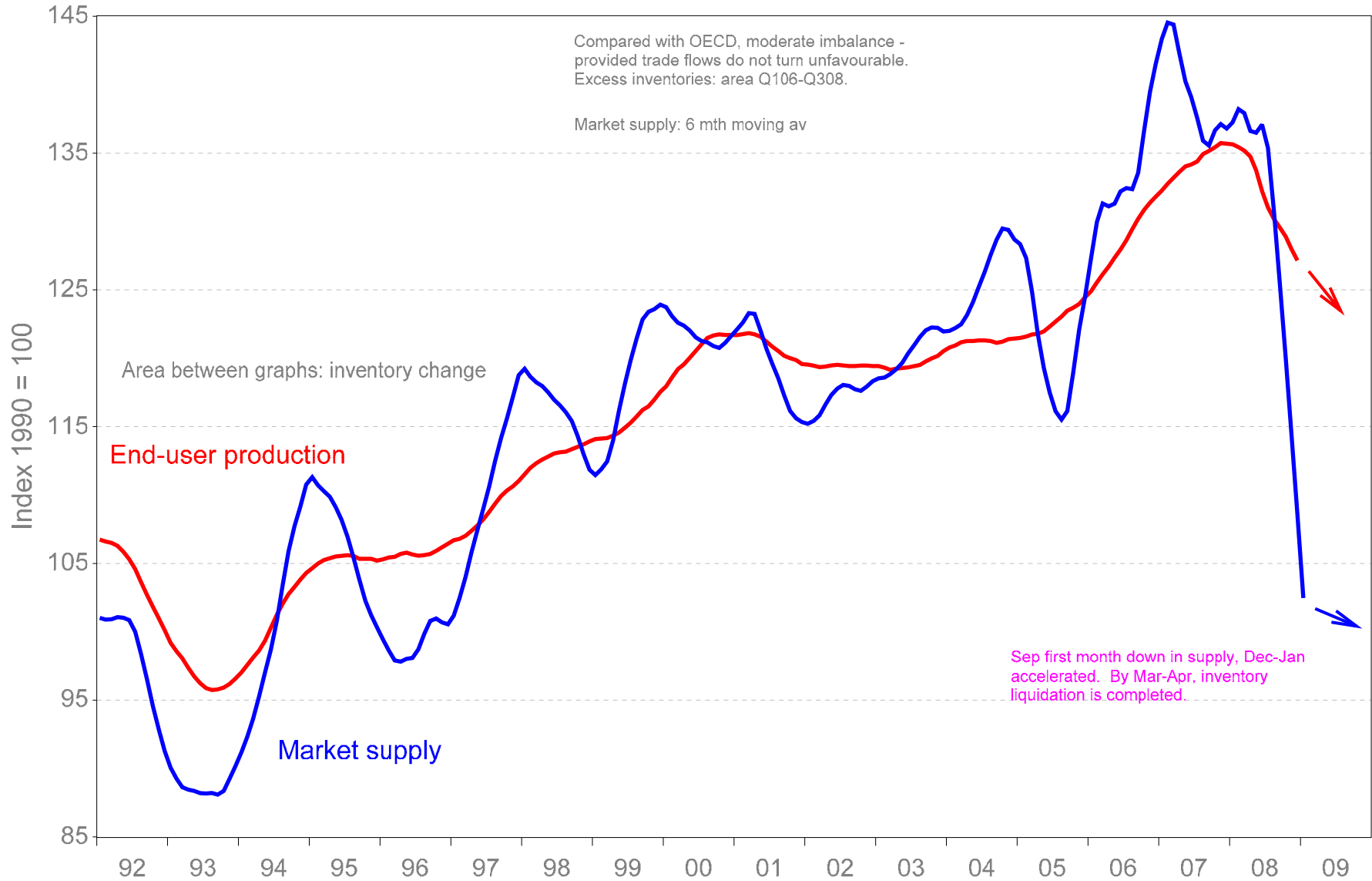
Construction 30 %, Machinery 25, Vehicles 20, Metal goods etc 25



- EU25 Steel End-users, aggregate production / eusteu04ms / [s.a., cma 12]
- EU Market supply of Steel (EU Output+Imports-Exports) [rebase 1990 = 100.0, s.a., cma 6]

# EU Steel Market Supply vs Steel Consumers' Production / Jan

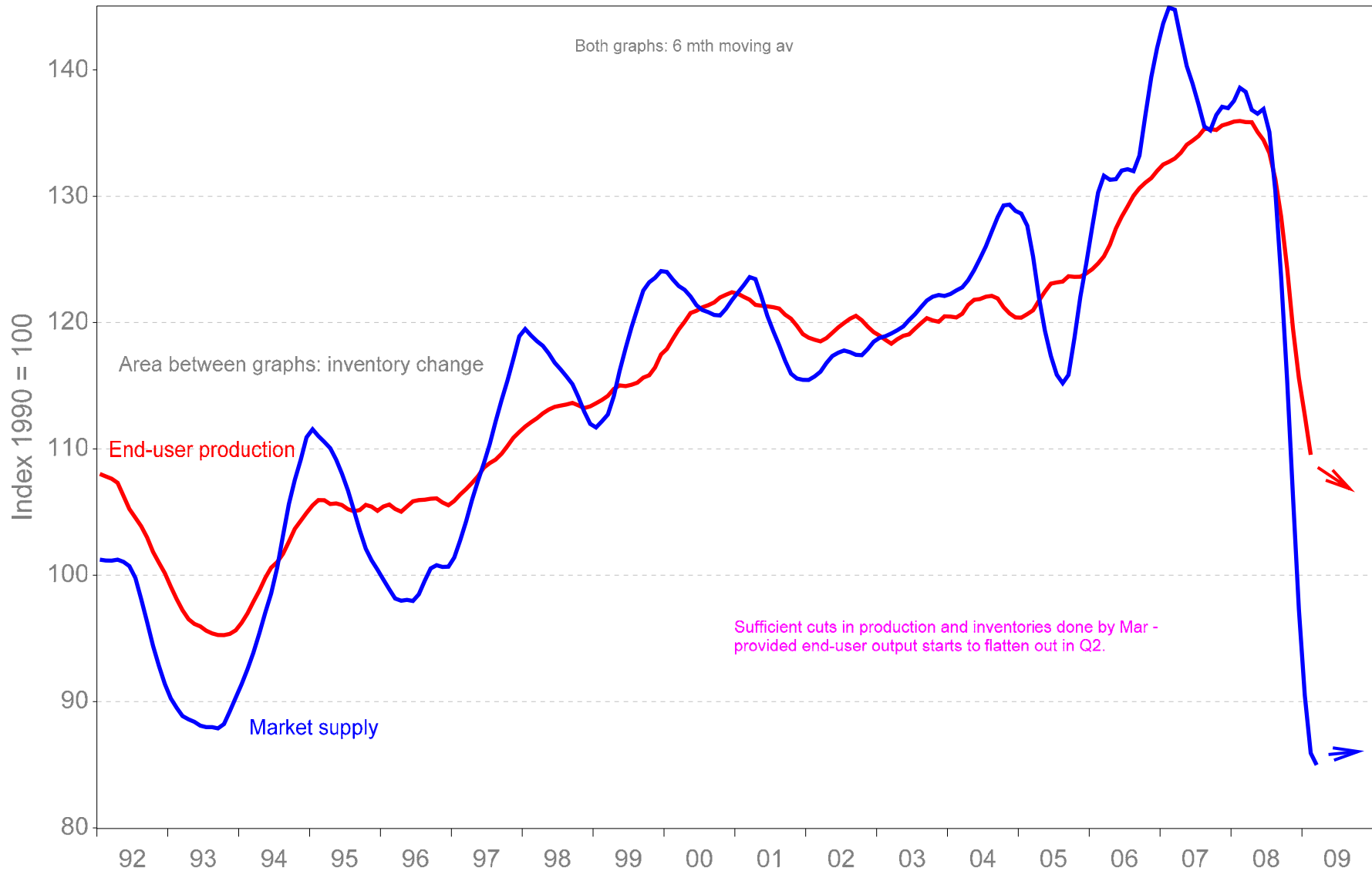
Construction (incl. infra) 35%, Machinery 20, Vehicles 20, Metal goods etc 25



- EU25 Steel End-users, aggregate production / eusteu04ms / [s.a., cma 12]
- EU Market supply of Steel (EU Output+Imports-Exports) [rebase 1990 = 100.0, s.a., cma 6]

# EU Steel Market Supply vs Steel Consumers' Production / Mar

Construction (incl. infra) 35%, Machinery 20, Vehicles 20, Metal goods etc 25

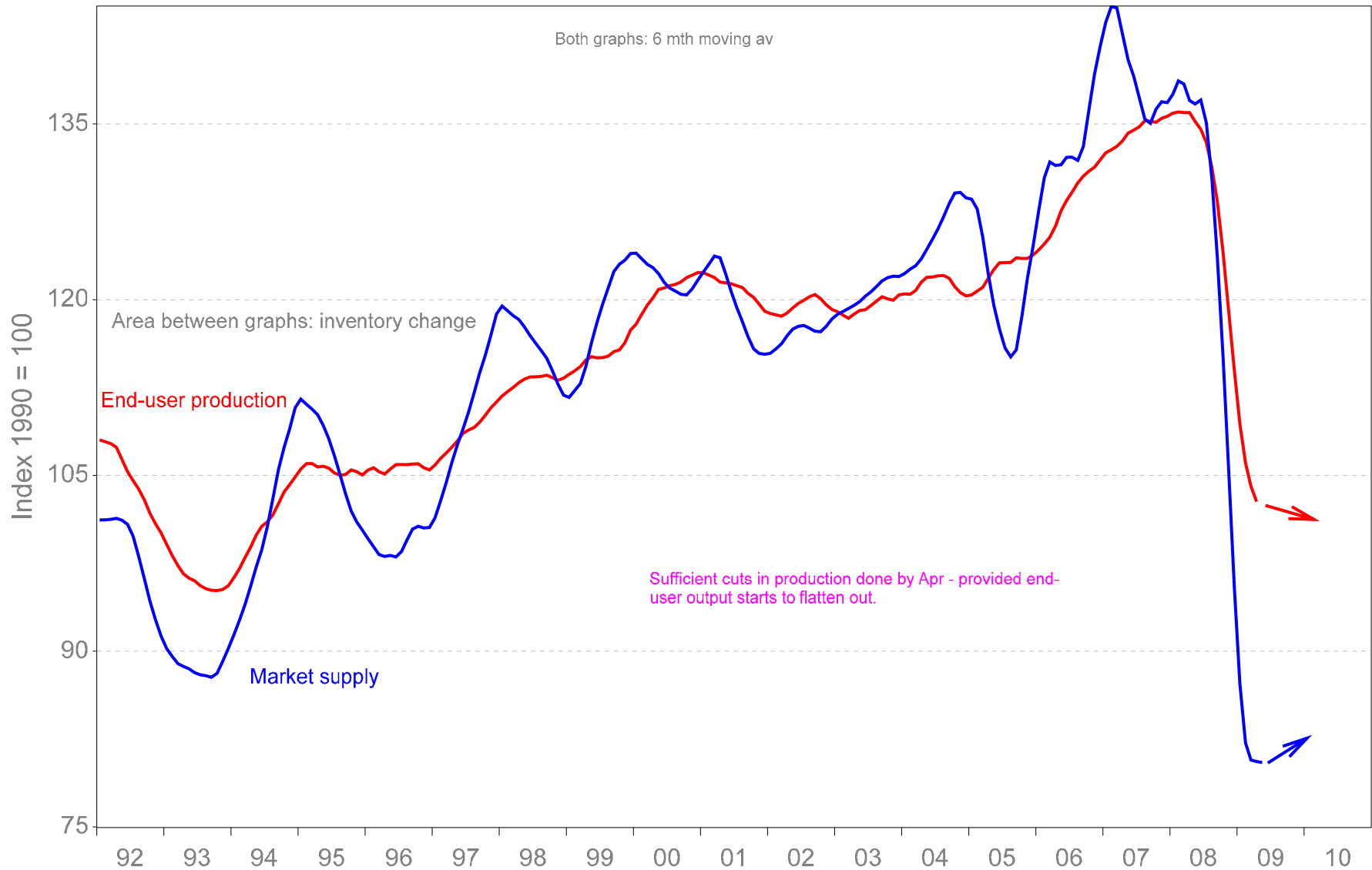


— EU27 Steel End-users, aggregate production / eusteu04ms / [s.a., cma 6]

— EU27 Market supply of Steel (EU Output+Imports-Exports) [rebase 1990 = 100.0, s.a., cma 6]

# EU Steel Market Supply vs Steel Consumers' Production / May

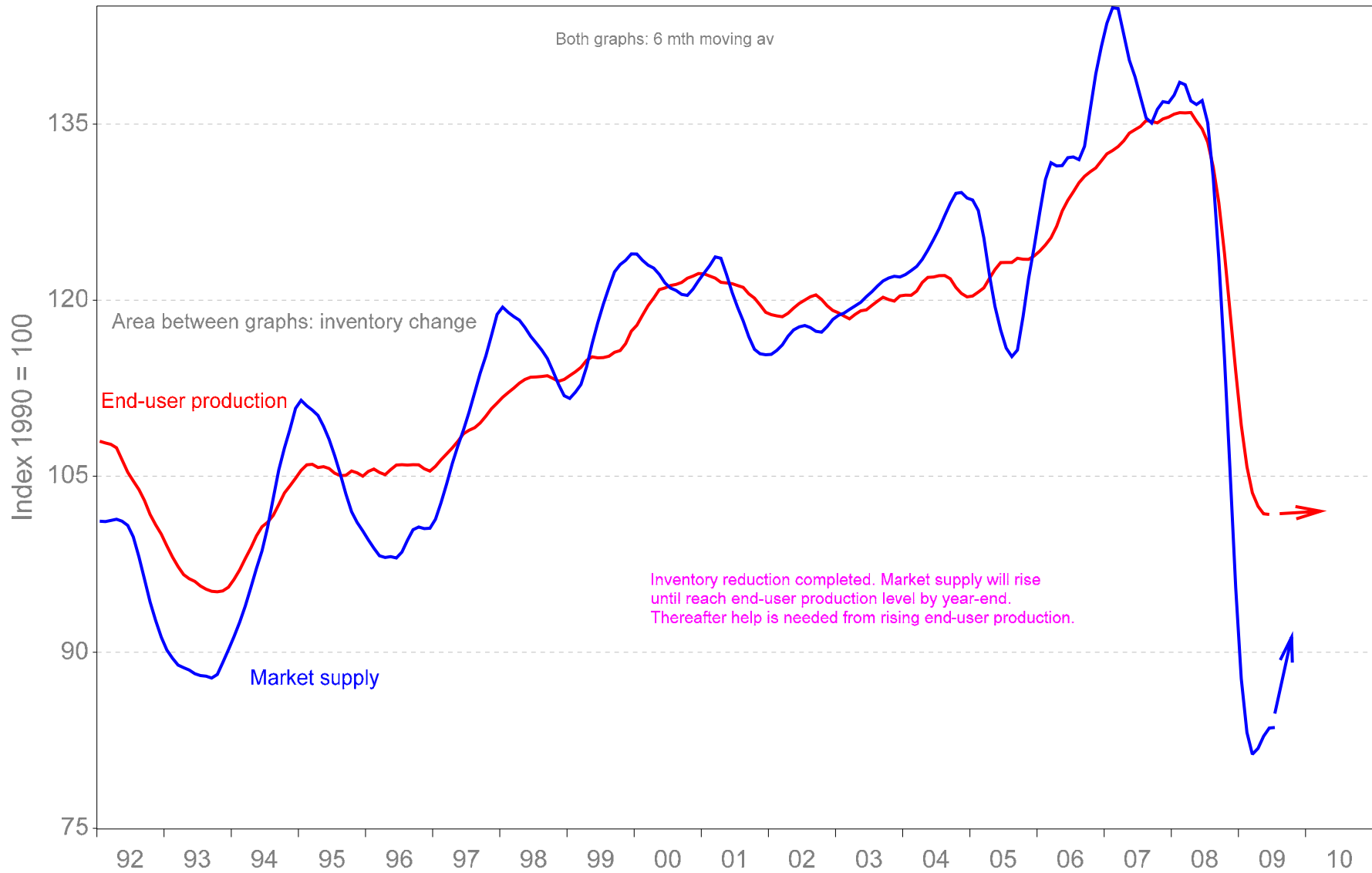
Construction (incl. infra) 35%, Machinery 20, Vehicles 20, Metal goods etc 25



- EU27 Steel End-users, aggregate production / eusteu04ms / [s.a., cma 6]
- EU27 Market supply of Steel (EU Output+Imports-Exports) [rebase 1990 = 100.0, s.a., cma 6]

# EU Steel Market Supply vs Steel Consumers' Production / Jul

Construction 30%, Machinery 20, Vehicles 20, Consumer durables, Metal goods, Energy 30

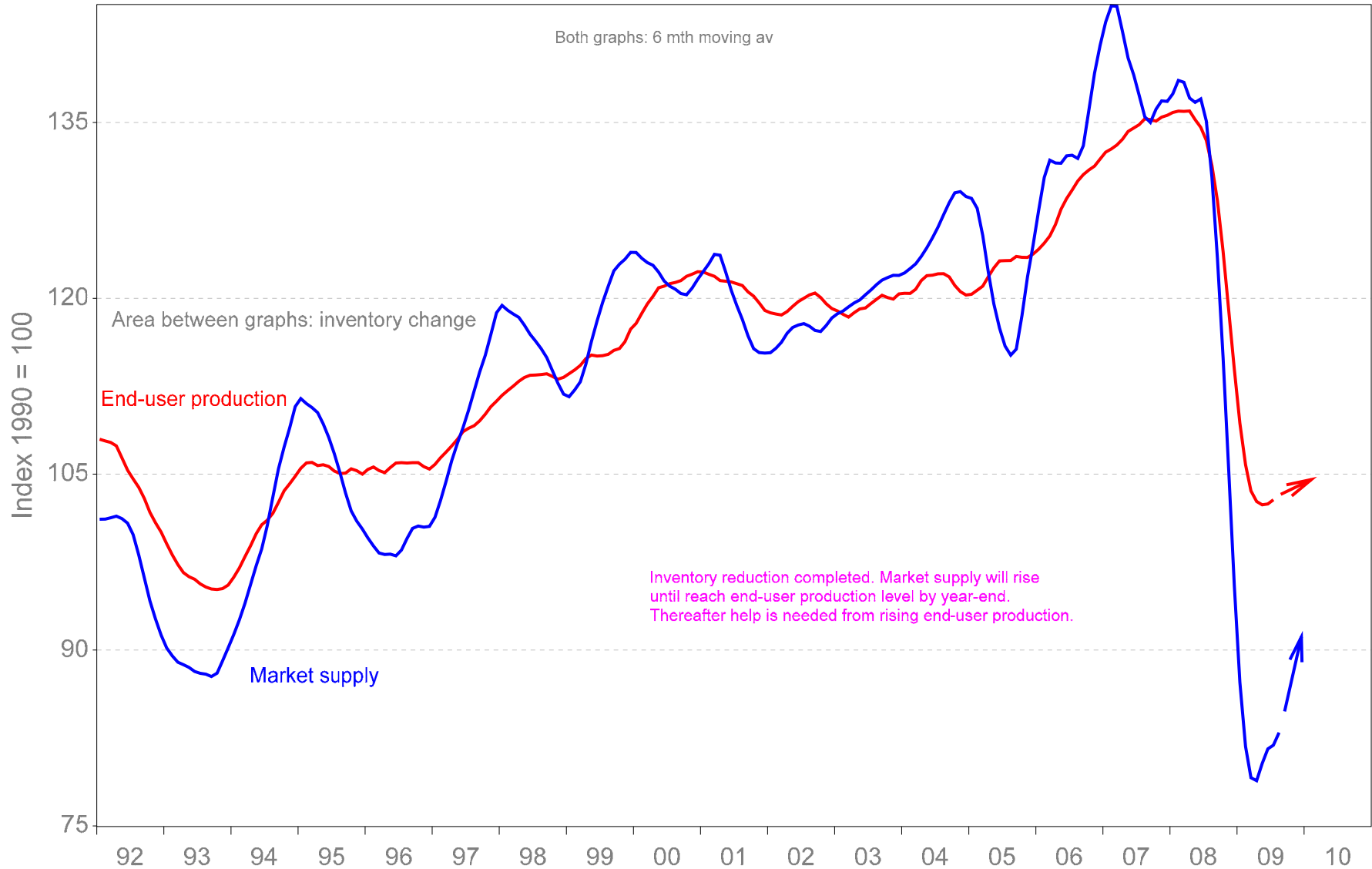


— EU27 Steel End-users, aggregate production / eusteu04ms / [s.a., cma 6]

— EU27 Market supply of Steel (EU Output+Imports-Exports) [rebase 1990 = 100.0, s.a., cma 6]

# EU Steel Market Supply vs Steel Consumers' Production / Aug

Construction 30%, Machinery 20, Vehicles 20, Consumer durables& Metal goods& Energy 30

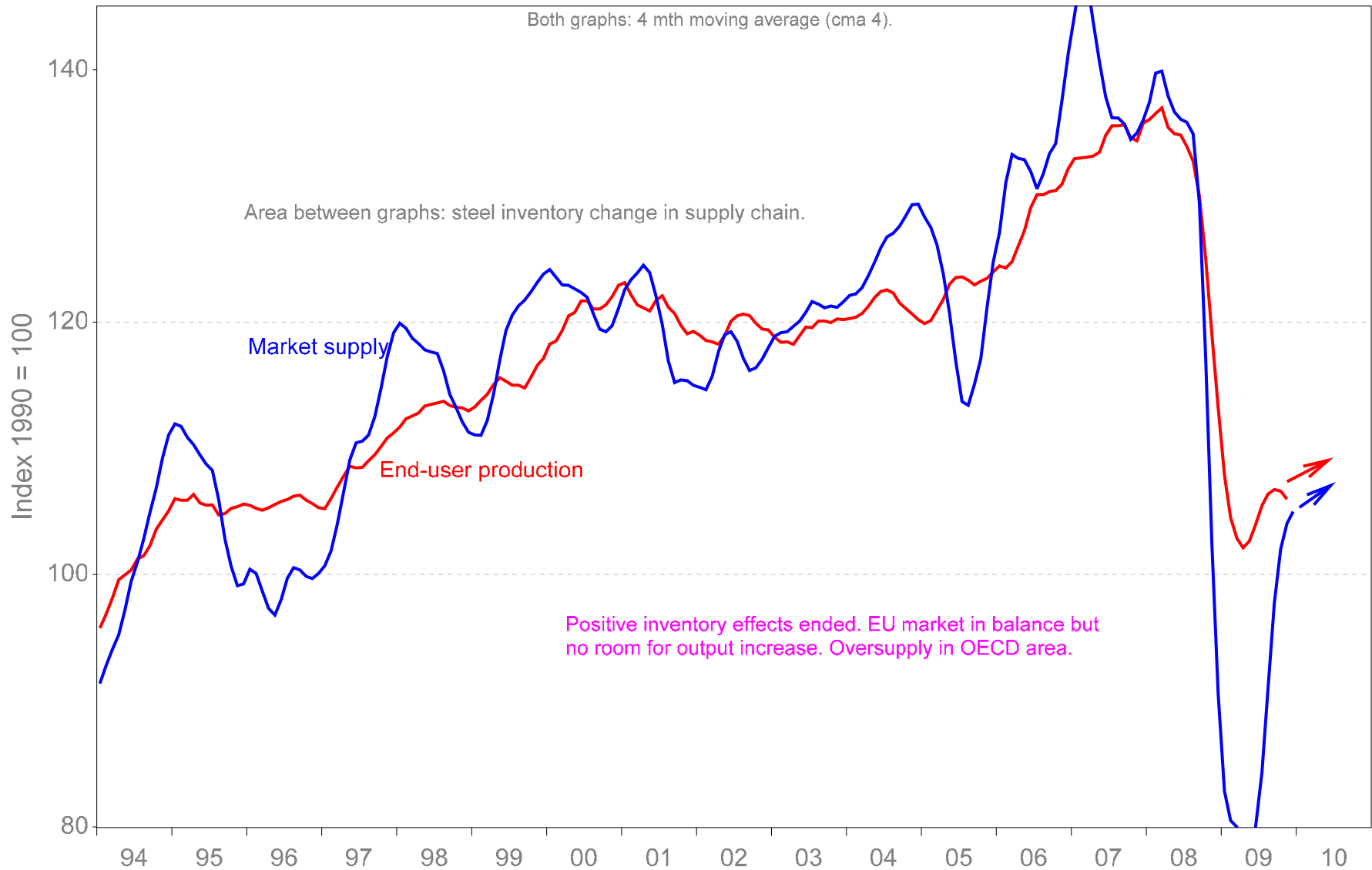


— EU27 Steel End-users, aggregate production / eusteu04ms / [s.a., cma 6]

— EU27 Market supply of Steel (EU Output+Imports-Exports) [rebase 1990 = 100.0, s.a., cma 6]

# EU Steel Market Supply vs Steel Consumers' Production / Dec

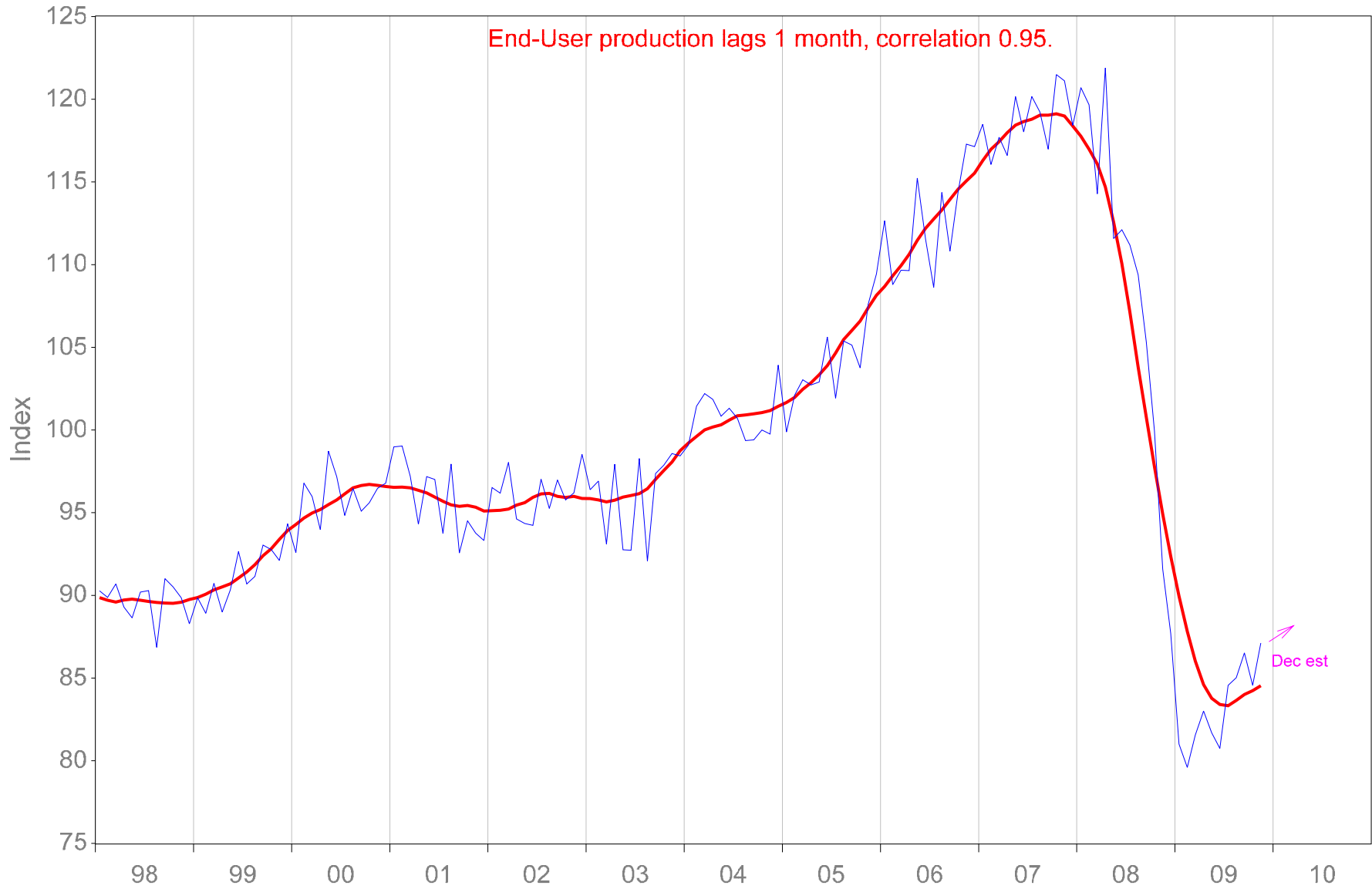
Construction 30%, Machinery 20, Vehicles 20, Consumer durables& Metal goods& Energy 30



- EU27 Steel End-users, aggregate production / eusteu04ms / [s.a., cma 4]
- EU27 Market supply of Steel, all grades [rebase 1990 = 100.0, s.a., cma 4]

# EU27 Steel End-User Orders / Nov

Construction 30%, Machinery 25, Vehicles 20, Metal goods etc 25



- EU27 Steel End-user orders / eusteuord - ih / [s.a., cma 12]
- EU27 Steel End-user orders [s.a.]



Steel downturn 2008 (cont..)



### 4.3 OECD: Forward indicators Jan-Jun 2008

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'OECD' in the following:

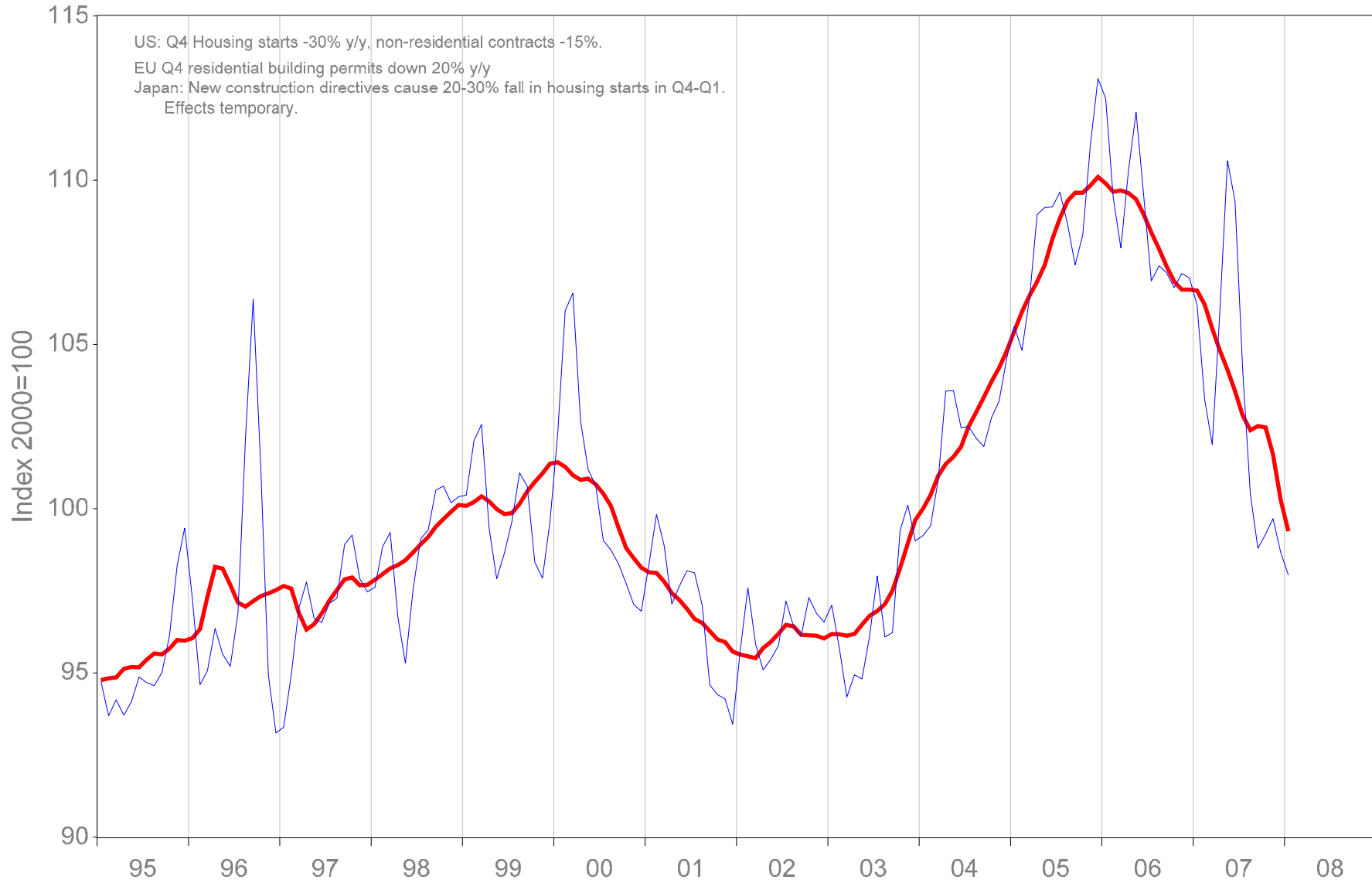
Production: 'Western world', ie World total less China and former Soviet

End-users: EU27, US, Japan

Consider the charts as 'Stylised facts'. There is a growing mismatch between the contents of production and end-use.

# Triad Construction Orders / Jan

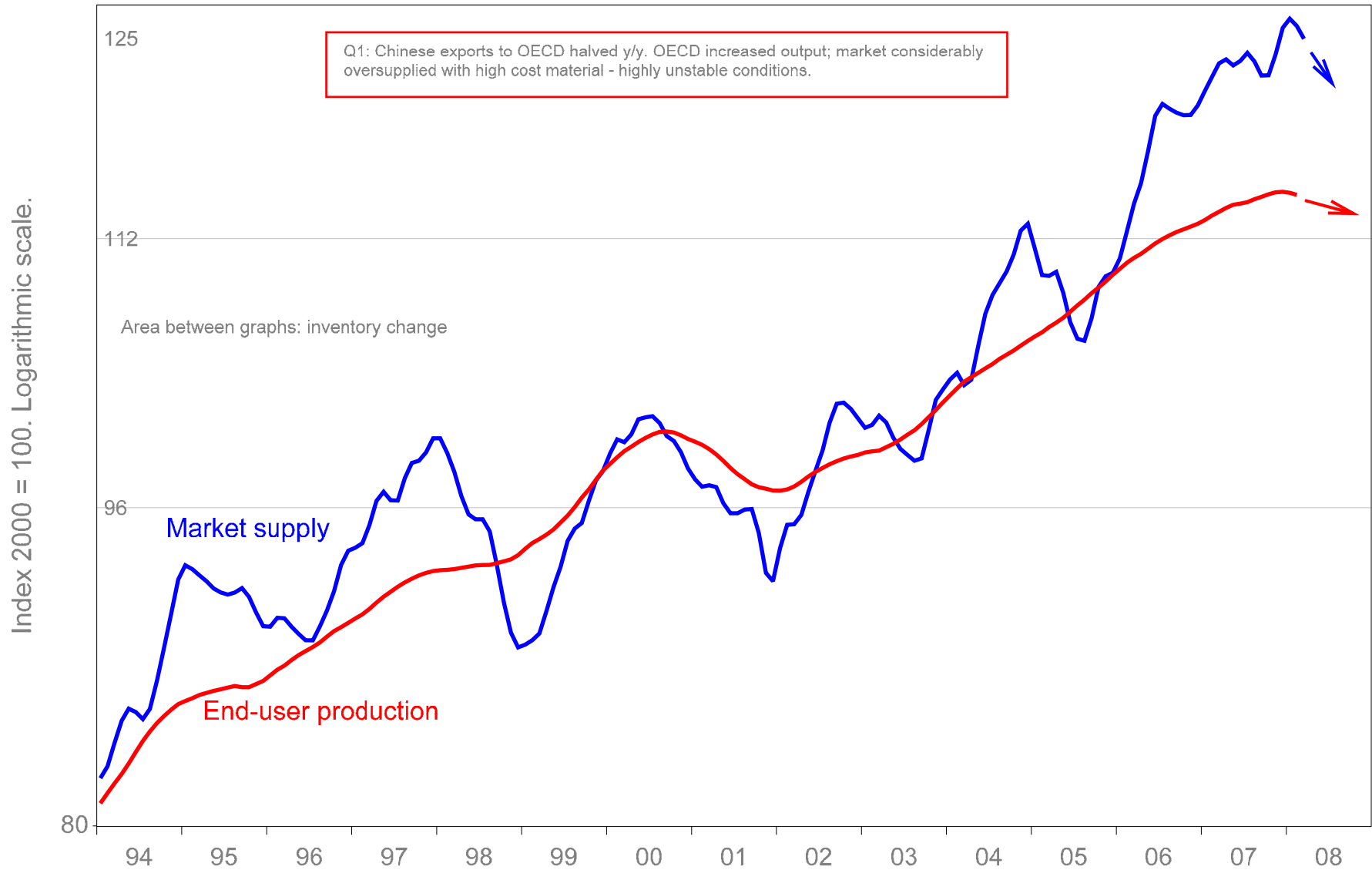
Output lags 5 months



- EU, US, Jpn est. Construction orders / oebbyggo3 / [s.a., cma 12]
- EU, US, Jpn est. Construction orders [s.a., cma 2]

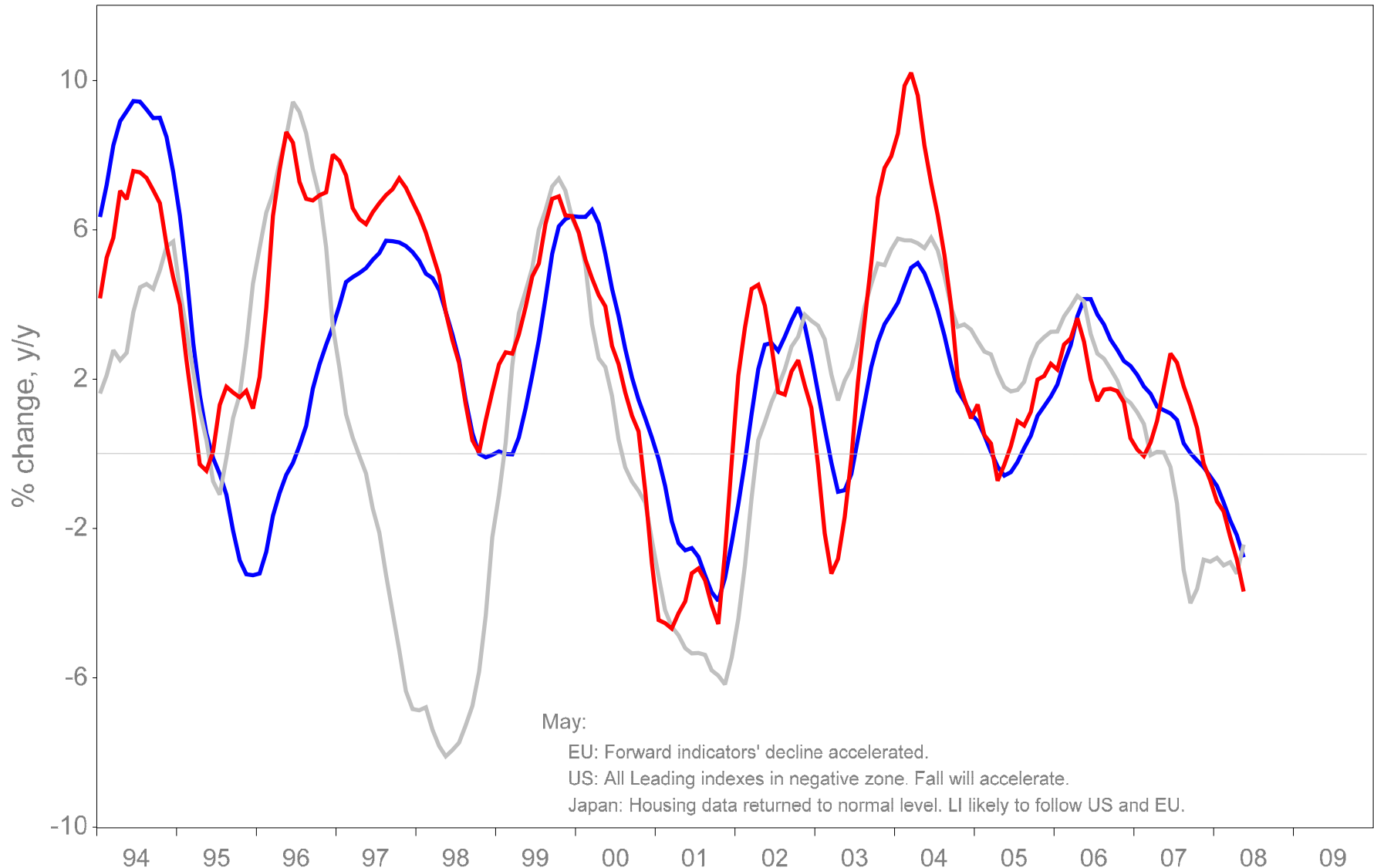
# OECD Steel Market supply vs End-User Production / Feb

Construction 30%, Machinery 25, Vehicles 20, Metal goods etc 25



- OECD Steel Market supply / oestveu2 / [rebase 2000 = 100.0, s.a., cma 2]
- OECD Steel End-users, aggregate production [rebase 2000 = 100.0, s.a., cma 12]

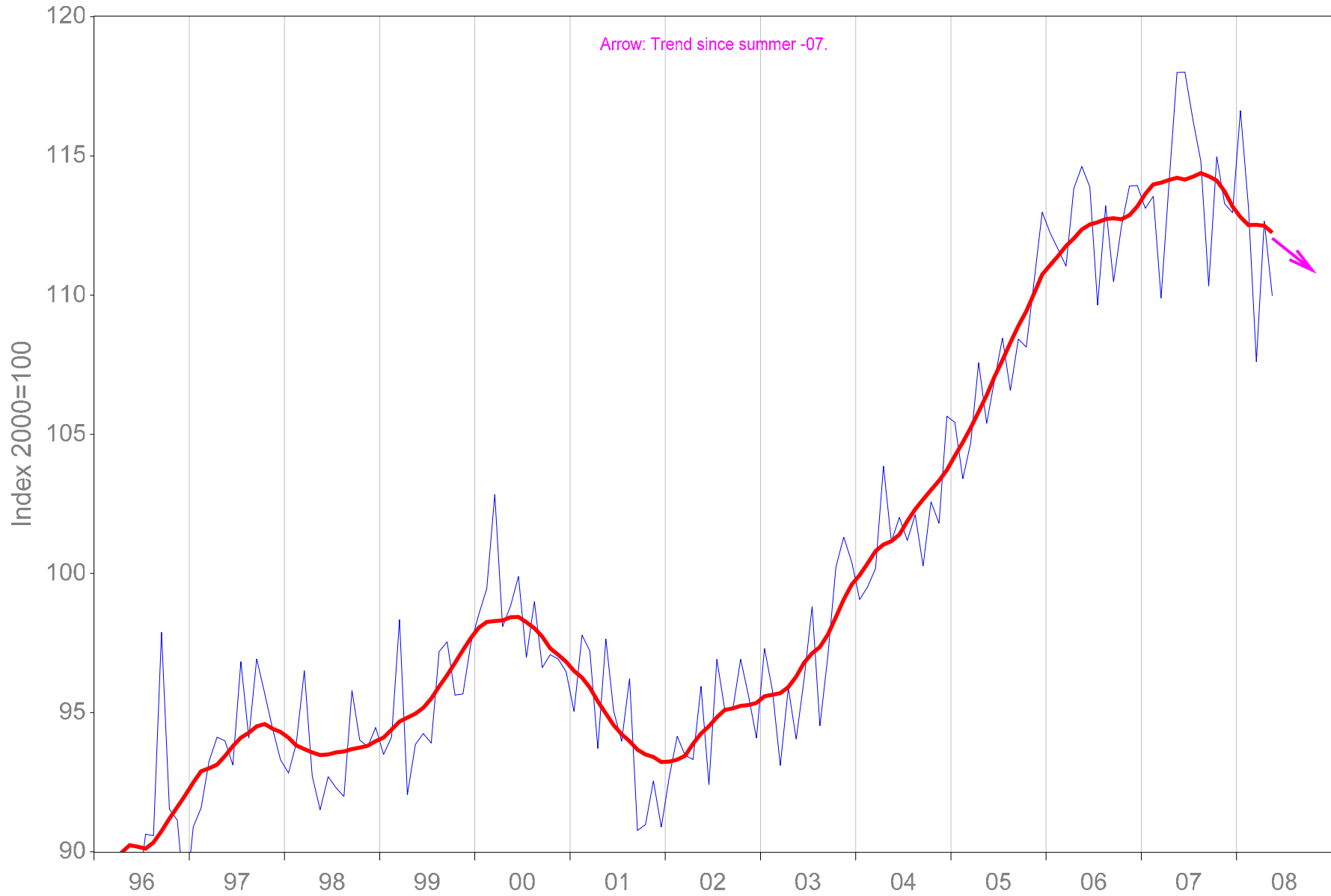
# G3 Business Cycle Leading Indicators (OECD) / May



- EU15 Business Cycle Leading Indicator [c.o.p 12 months]
- Japan Business Cycle Leading Indicator / oelindG3n / [c.o.p 12 months]
- US Business Cycle Leading Indicator [c.o.p 12 months]

Source: Reuters EcoWin

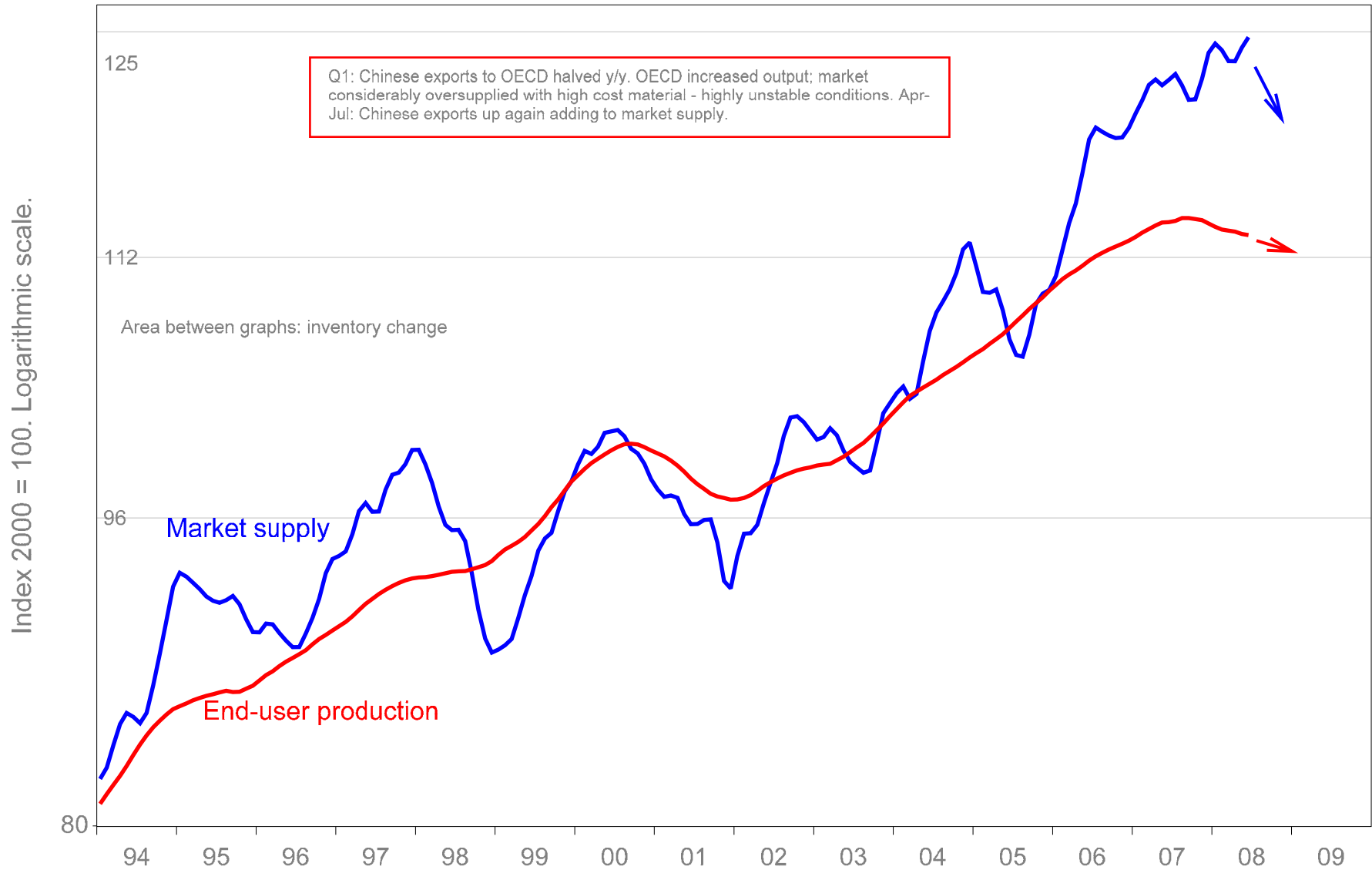
# OECD Steel End-user Orders / May



— EU25, US, Japan Steel End-user Orders / oeeustord / [s.a.]  
— EU25, US, Japan Steel End-user Orders [s.a., cma 12]

# OECD Steel Market supply vs End-User Production / Jun

Construction 30%, Machinery 25, Vehicles 20, Metal goods etc 25



- OECD Steel Market supply / oestveu2 / [rebase 2000 = 100.0, s.a., cma 2]
- OECD Steel End-users, aggregate production [rebase 2000 = 100.0, s.a., cma 12]

Steel downturn 2008 (cont..)

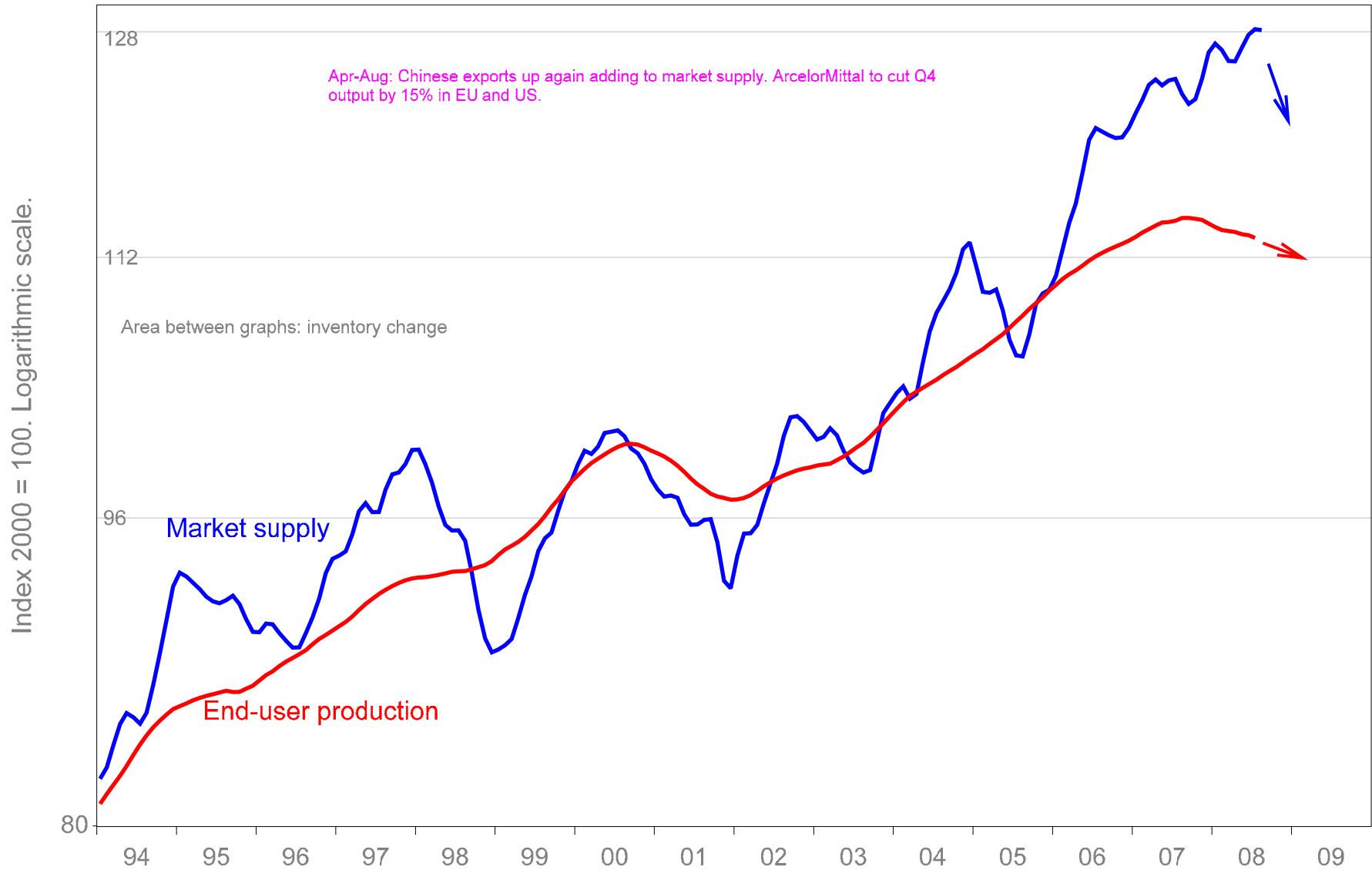


4.4 OECD, Collapse Aug 2008 ->

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# OECD Steel Market supply vs End-User Production / Jul

Construction 30%, Machinery 25, Vehicles 20, Metal goods etc 25



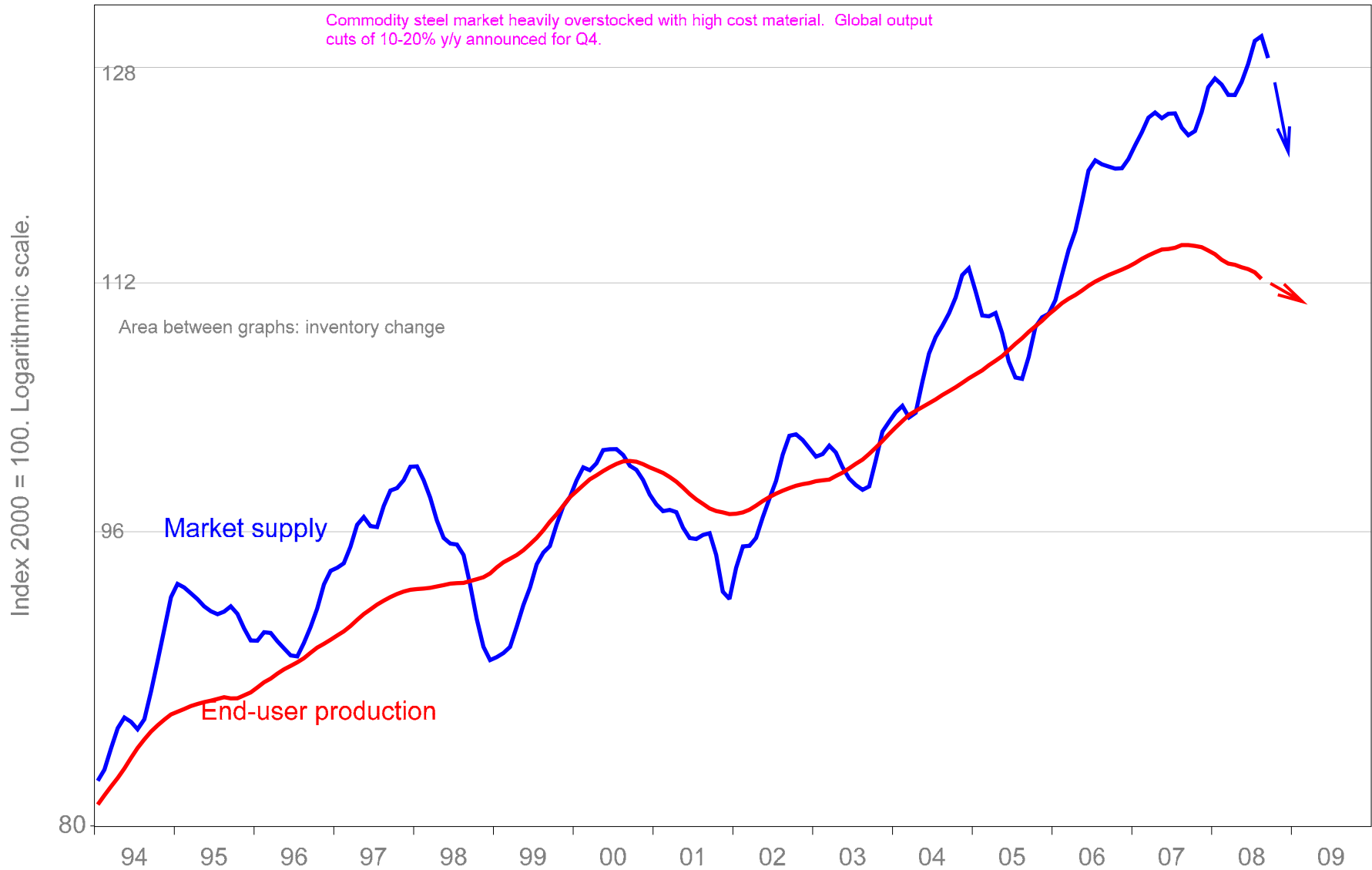
- OECD Steel Market supply / oestveu2 / [rebase 2000 = 100.0, s.a., cma 2]
- OECD Steel End-users, aggregate production [rebase 2000 = 100.0, s.a., cma 12]



# OECD Steel Market supply vs End-User Production / Sep

Construction 30%, Machinery 25, Vehicles 20, Metal goods etc 25

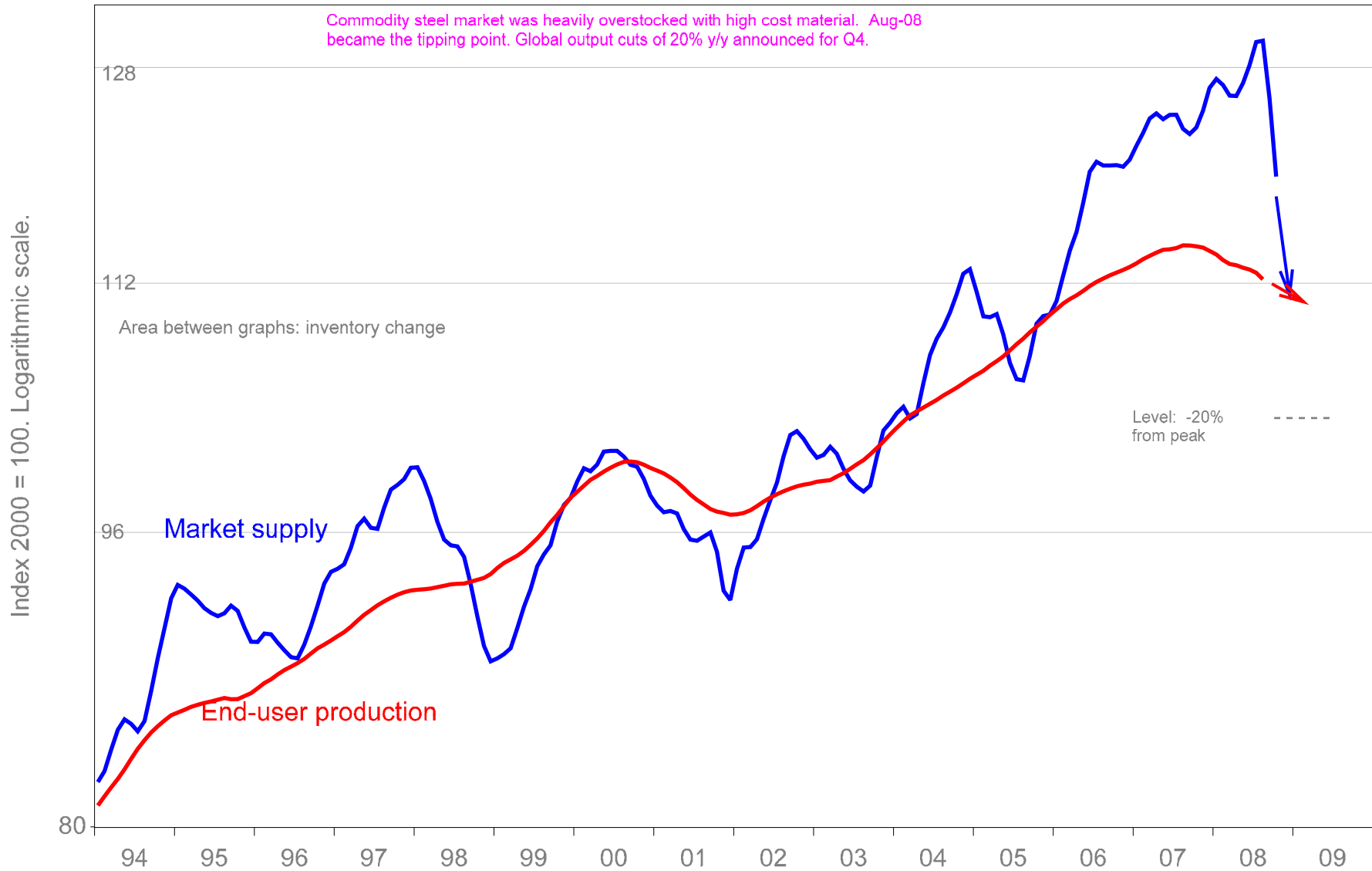
Commodity steel market heavily overstocked with high cost material. Global output cuts of 10-20% y/y announced for Q4.



- OECD Steel Market supply / oestveu2 / [rebase 2000 = 100.0, s.a., cma 2]
- OECD Steel End-users, aggregate production [rebase 2000 = 100.0, s.a., cma 12]

# OECD Steel Market supply vs End-User Production / Oct

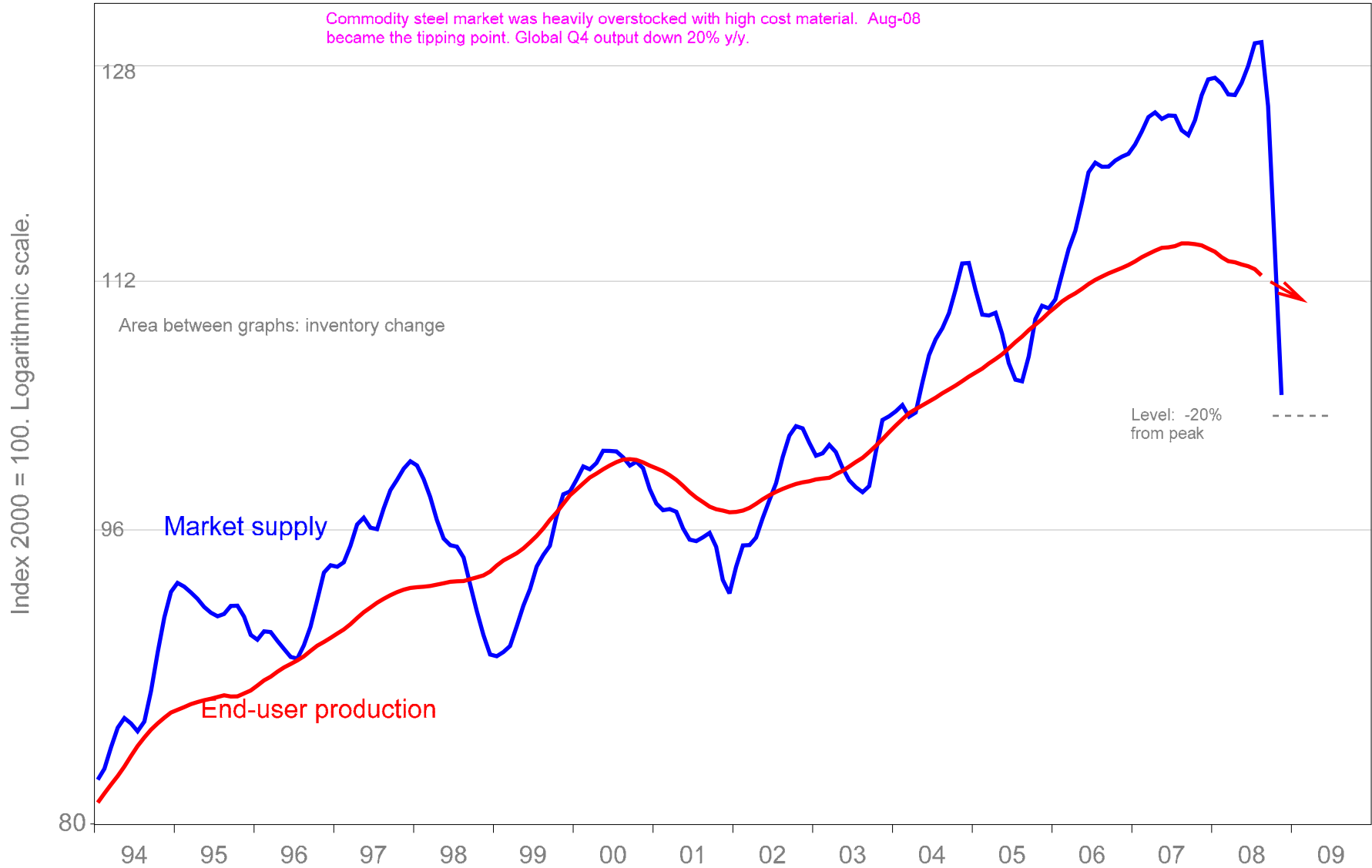
Construction 30%, Machinery 25, Vehicles 20, Metal goods etc 25



- OECD Steel Market supply / oestveu2 / [rebase 2000 = 100.0, s.a., cma 2]
- OECD Steel End-users, aggregate production [rebase 2000 = 100.0, s.a., cma 12]

# OECD Steel Market supply vs End-User Production / Nov

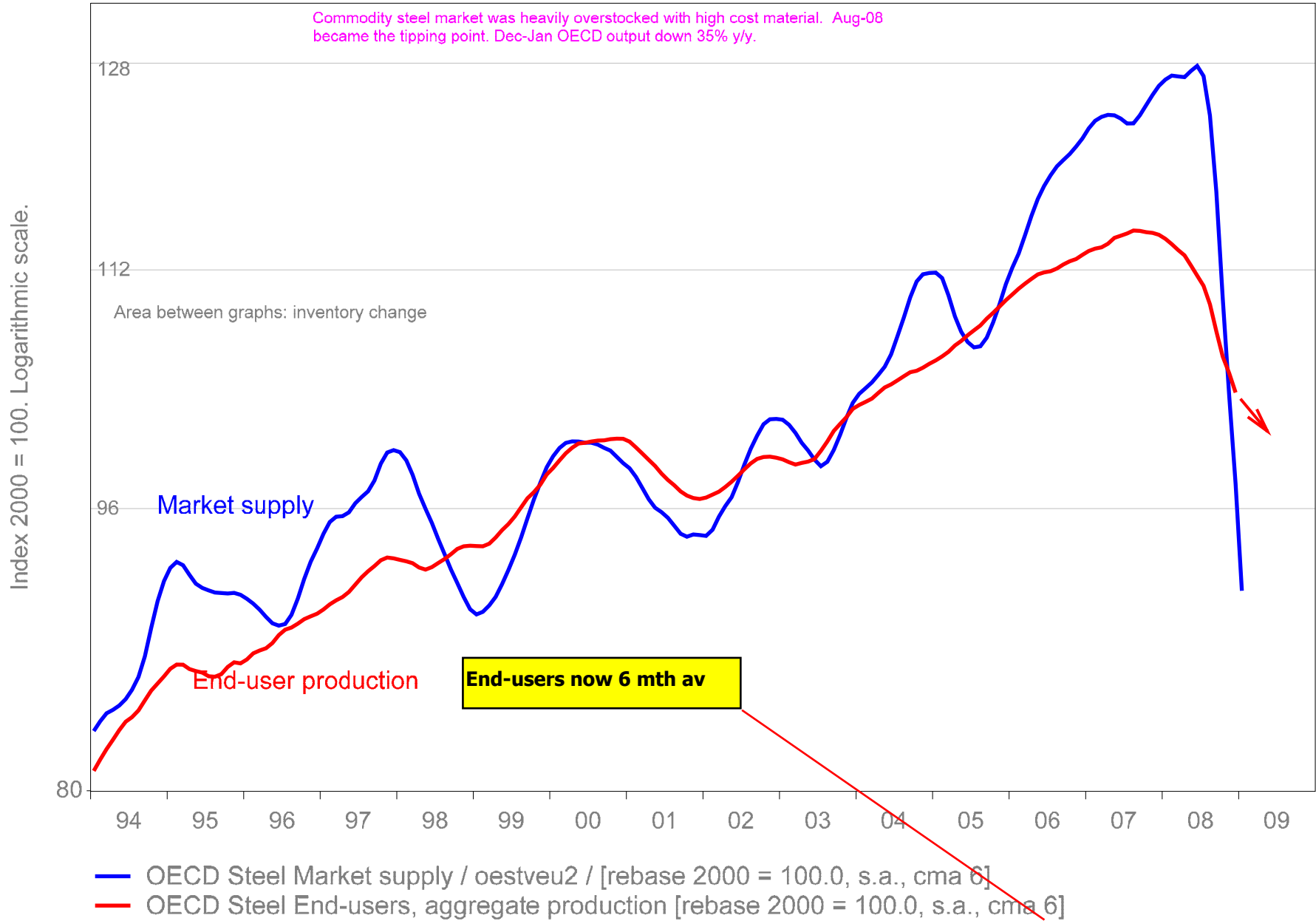
Construction 30%, Machinery 25, Vehicles 20, Metal goods etc 25



- OECD Steel Market supply / oestveu2 / [rebase 2000 = 100.0, s.a., cma 2]
- OECD Steel End-users, aggregate production [rebase 2000 = 100.0, s.a., cma 12]

# OECD Steel Market supply vs End-User Production / Jan

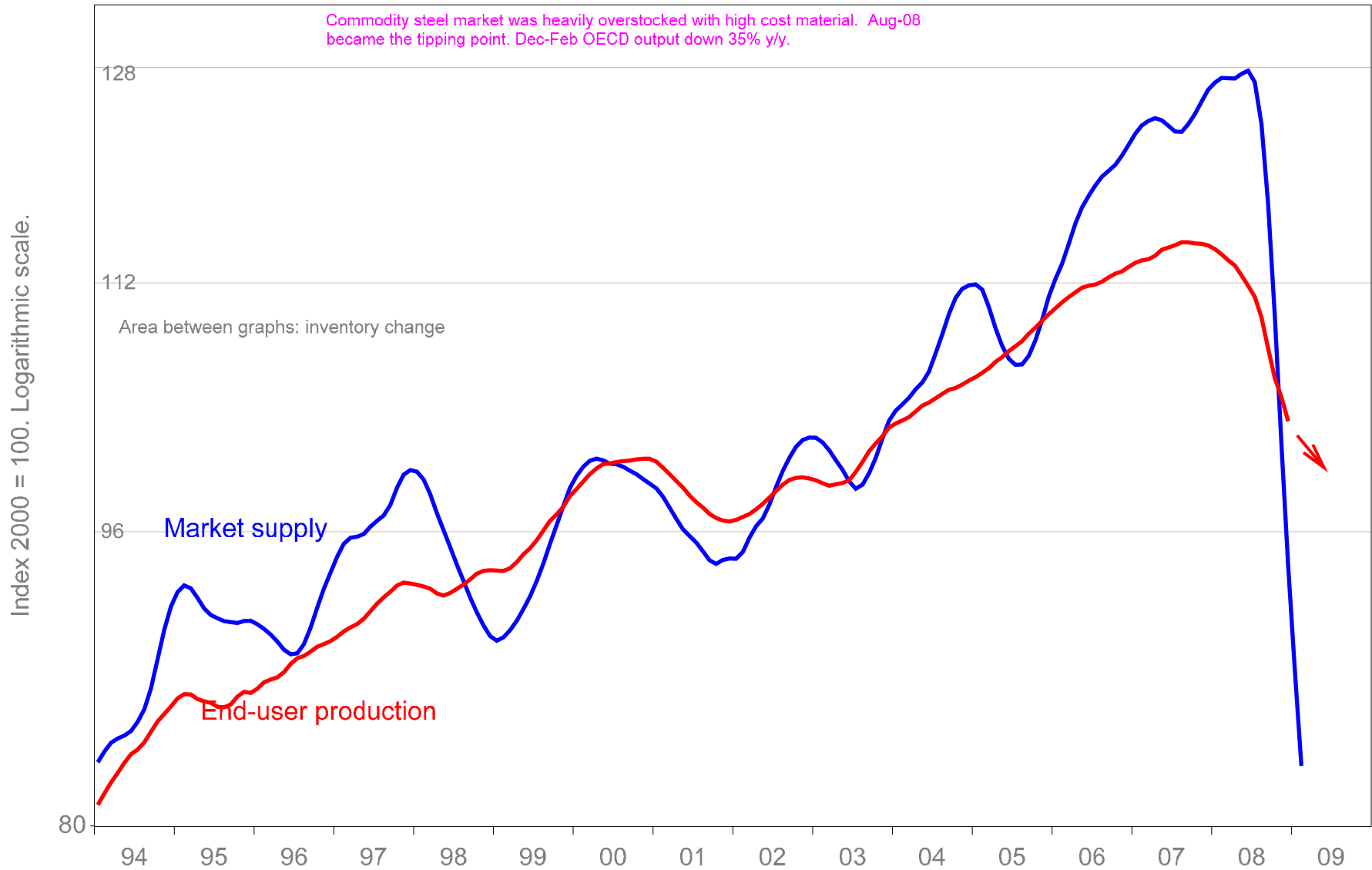
Construction 30%, Machinery 25, Vehicles 20, Metal goods etc 25



# OECD Steel Market supply vs End-User Production / Feb

Construction 30%, Machinery 25, Vehicles 20, Metal goods etc 25

Commodity steel market was heavily overstocked with high cost material. Aug-08 became the tipping point. Dec-Feb OECD output down 35% y/y.

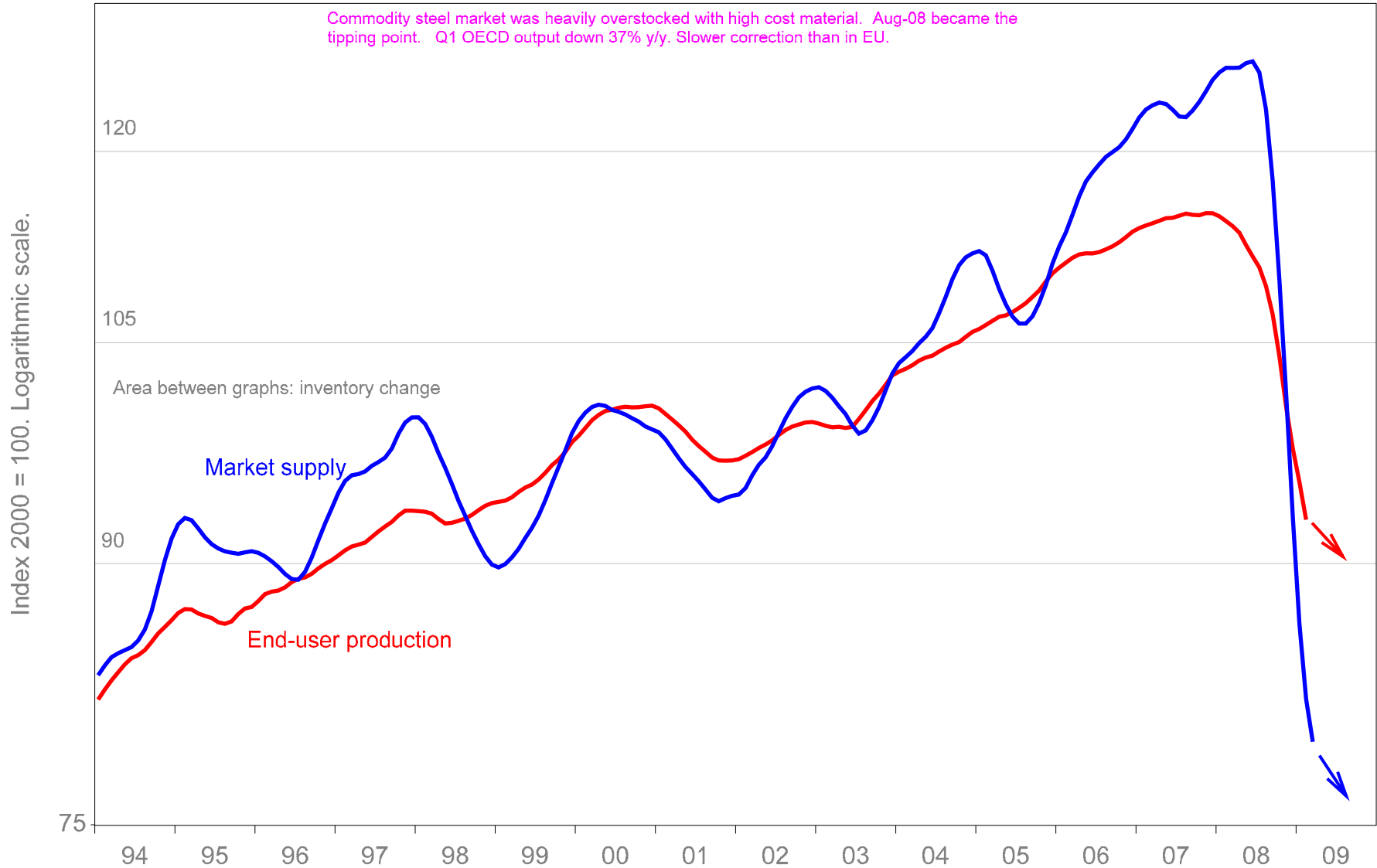


- OECD Steel Market supply / oestveu2 / [rebase 2000 = 100.0, s.a., cma 6]
- OECD Steel End-users, aggregate production [rebase 2000 = 100.0, s.a., cma 6]

# OECD Steel Market supply vs End-User Production / Mar

Construction 30%, Machinery 25, Vehicles 20, Metal goods etc 25

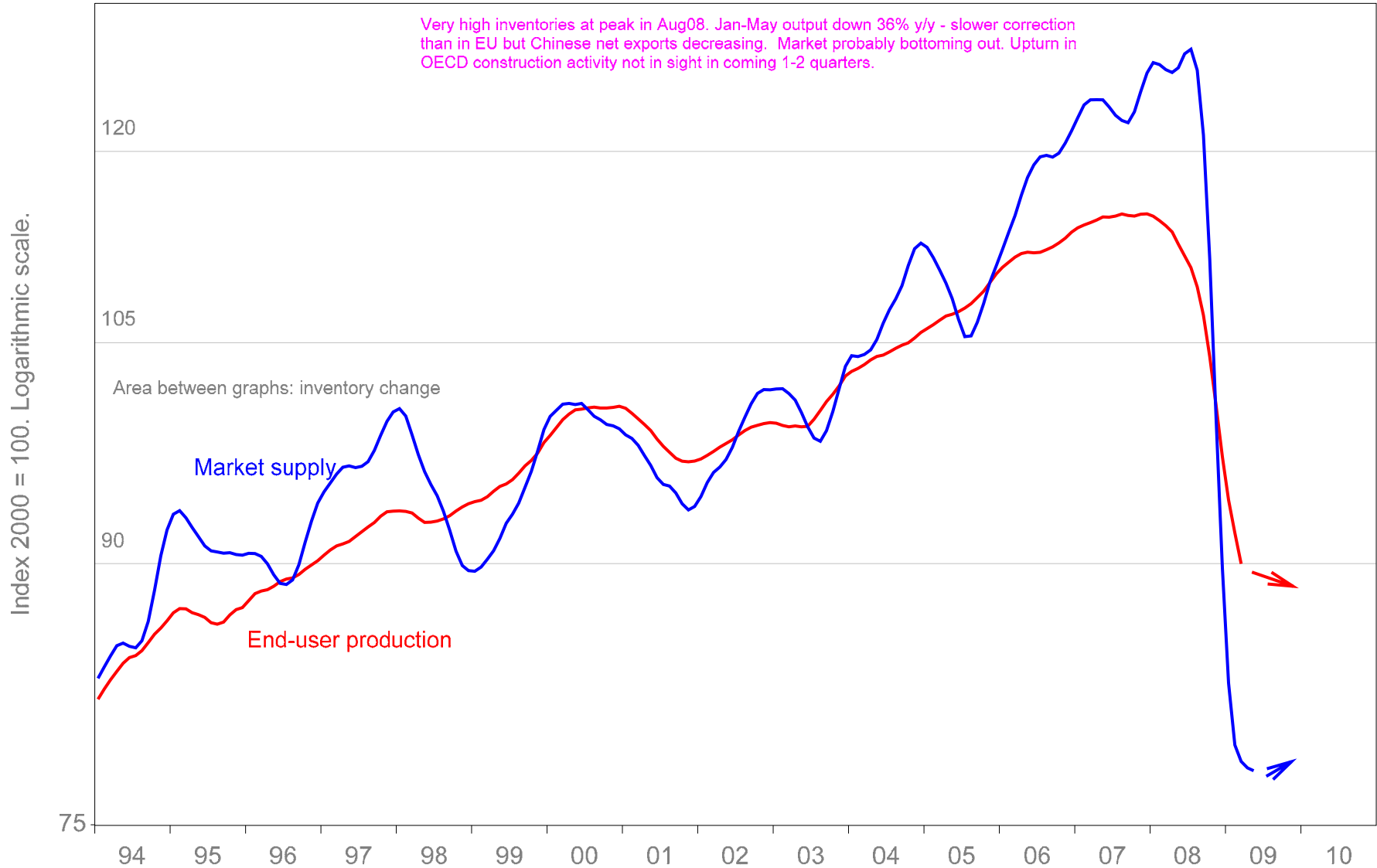
Commodity steel market was heavily overstocked with high cost material. Aug-08 became the tipping point. Q1 OECD output down 37% y/y. Slower correction than in EU.



- OECD Steel End-users, aggregate production [rebase 2000 = 100.0, s.a., cma 6]
- OECD Steel Market supply / oestveu2 / [rebase 2000 = 100.0, s.a., cma 6]

# OECD Steel Market supply (May) vs End-User Production (Apr)

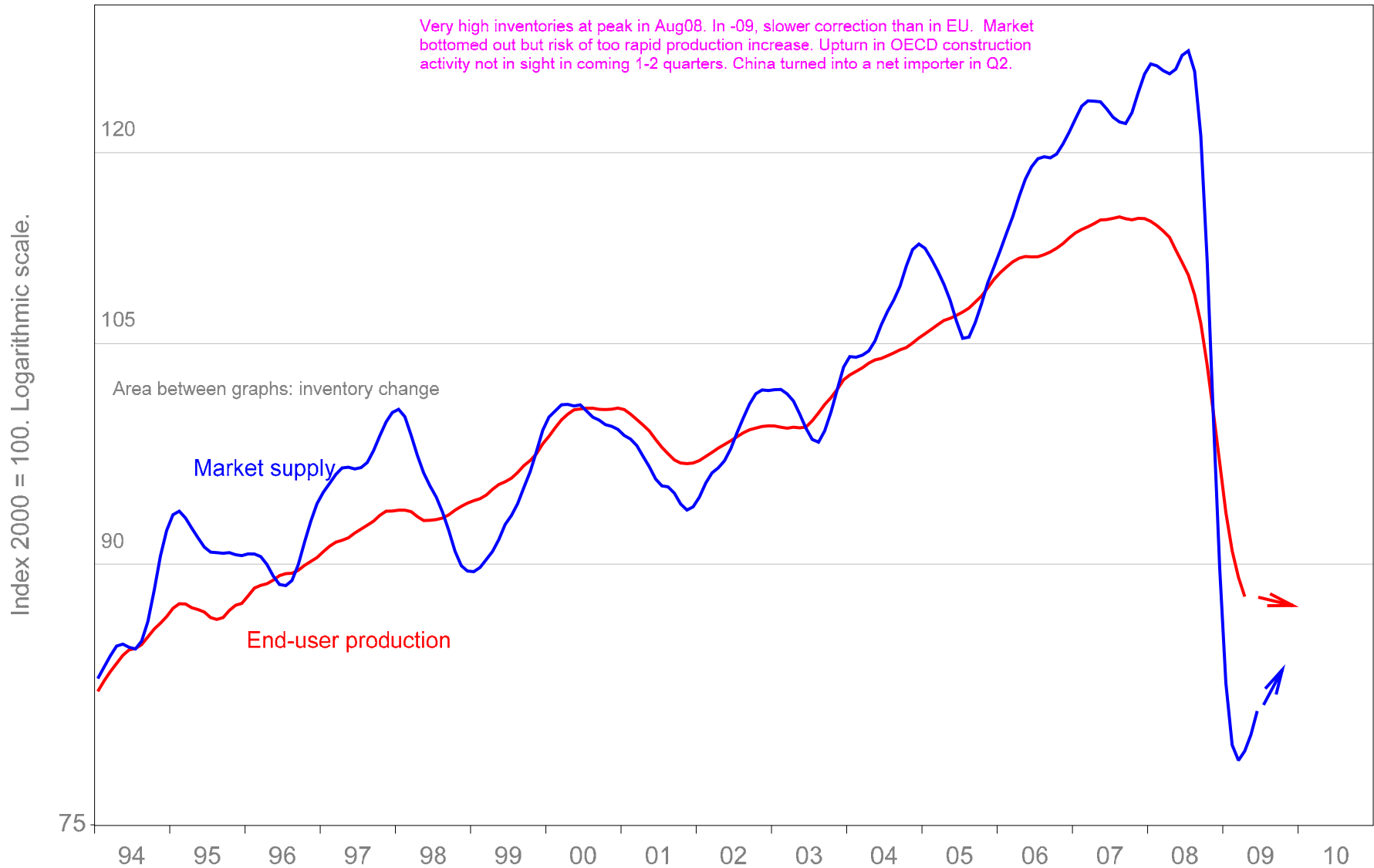
Construction 30%, Machinery 25, Vehicles 20, Metal goods etc 25



- OECD Steel End-users, aggregate production [rebase 2000 = 100.0, s.a., cma 6]
- OECD Steel Market supply / oestveu2ih / [rebase 2000 = 100.0, s.a., cma 4]

# OECD Steel Market supply (Jun) vs End-User Production (May)

Construction 30%, Machinery 15, Vehicles 20, Cons. durables, Metal goods, Energy 35

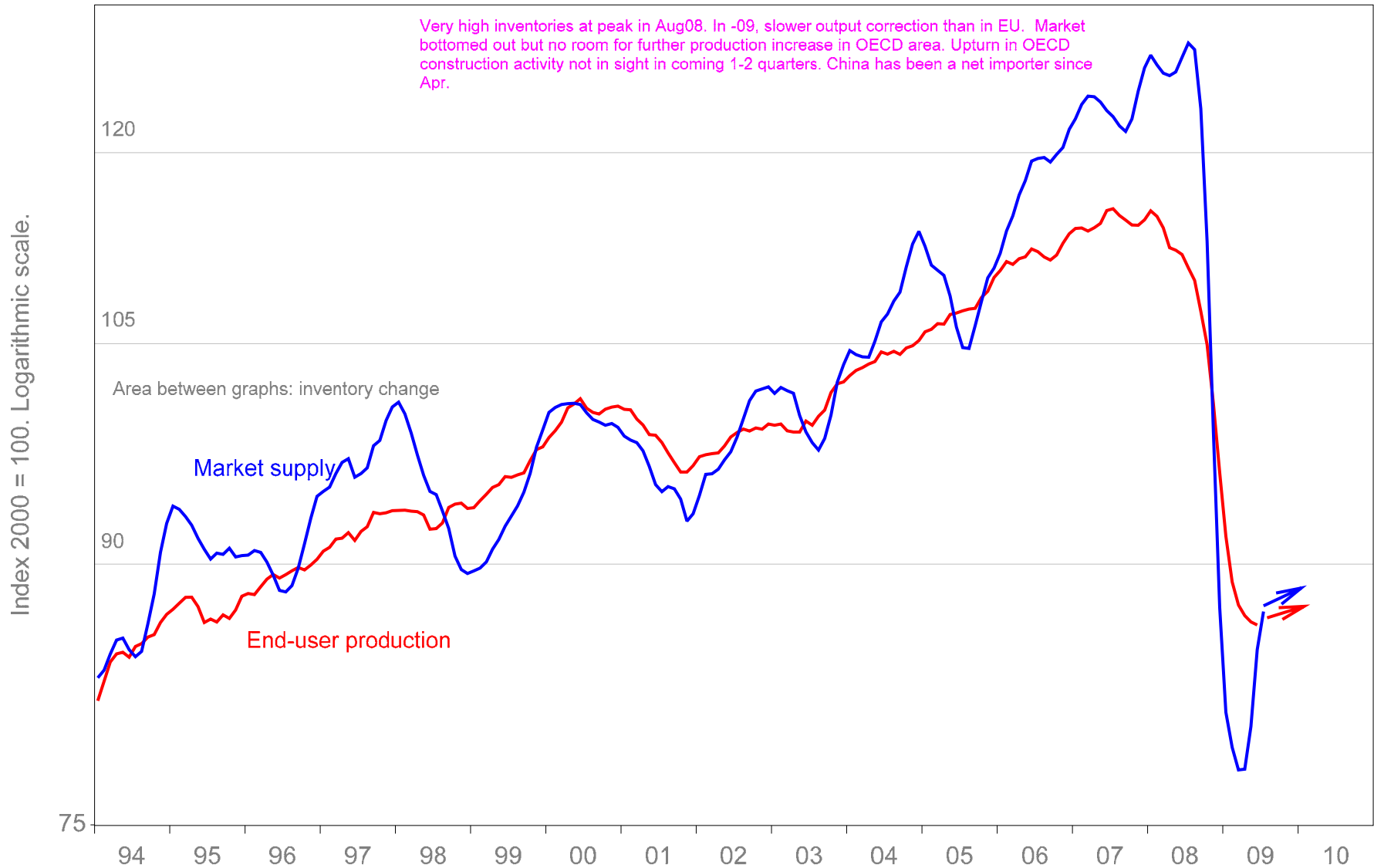


- OECD Steel End-users, aggregate production [rebase 2000 = 100.0, s.a., cma 6]
- OECD Steel Market supply / oestveu2ih / [rebase 2000 = 100.0, s.a., cma 4]



# OECD Steel Market supply (Jul) vs End-User Production (Jun)

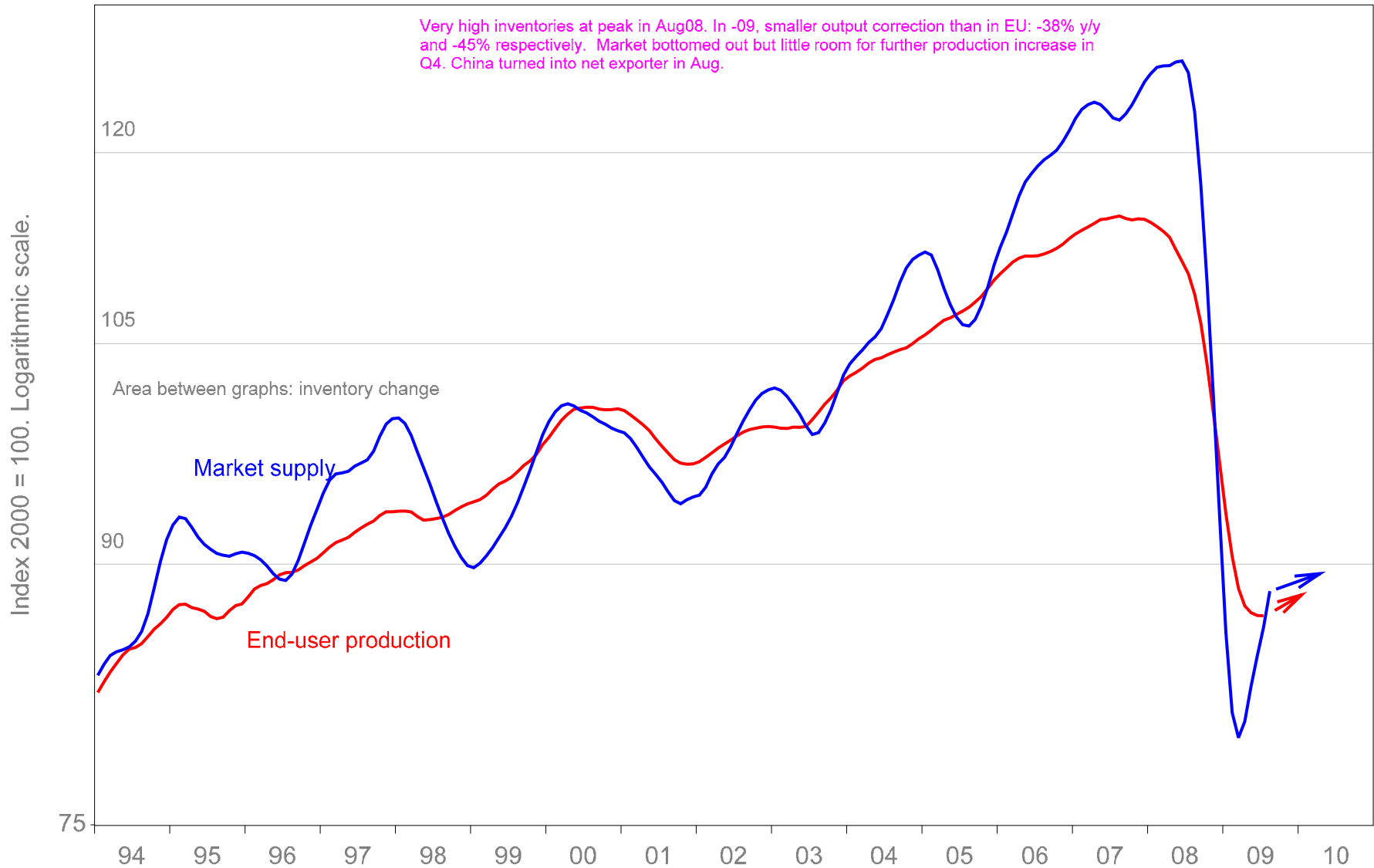
Construction 30%, Machinery 15, Vehicles 20, Cons. durables, Metal goods, Energy 35



- OECD Steel End-users, aggregate production [rebase 2000 = 100.0, s.a., cma 3]
- OECD Steel Market supply / oestveu2ih / [rebase 2000 = 100.0, s.a., cma 3]

# OECD Steel Market supply (Aug) vs End-User Production (Jul)

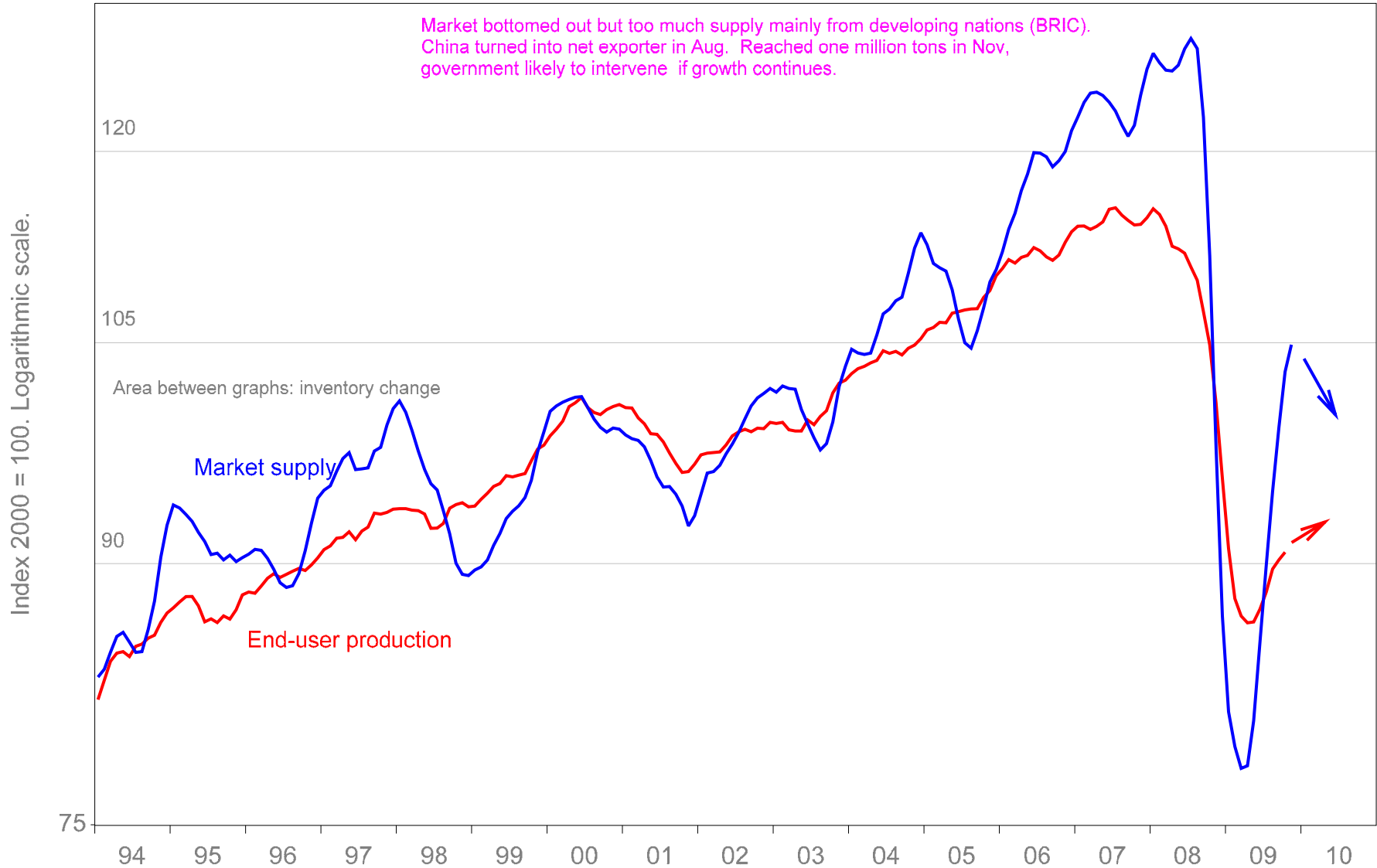
Construction 30%, Machinery 15, Vehicles 20, Cons. durables, Metal goods, Energy 35



- OECD Steel End-users, aggregate production [rebase 2000 = 100.0, s.a., cma 6]
- OECD Steel Market supply / oestveu2ih / [rebase 2000 = 100.0, s.a., cma 6]

# OECD Steel Market supply (Nov) vs End-User Production (Oct)

Construction 30%, Machinery 15, Vehicles 20, Cons. durables, Metal goods, Energy 35

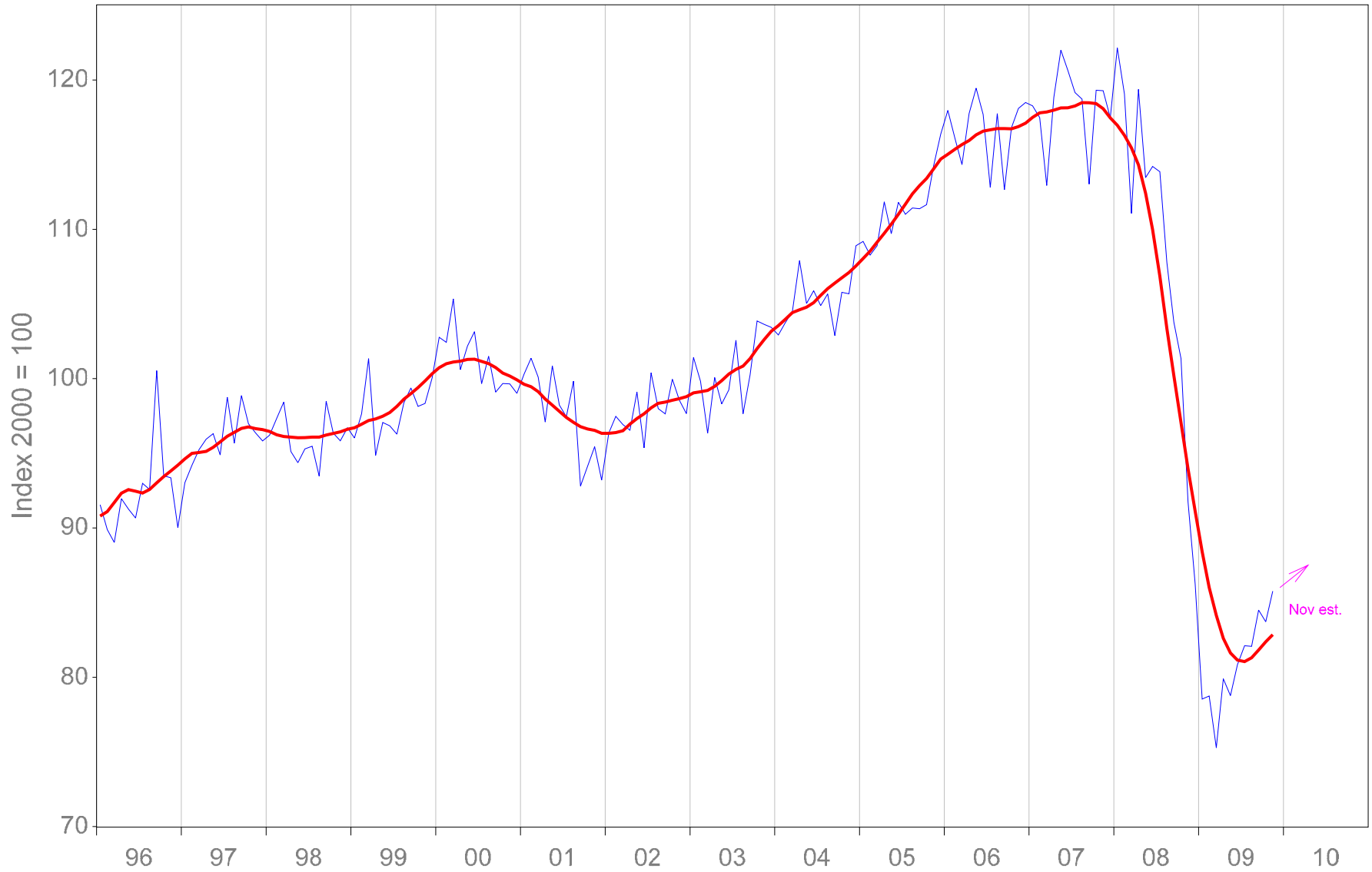


— OECD Steel End-users, aggregate production [rebase 2000 = 100.0, s.a., cma 3]

— OECD Steel Market supply / oestveu2ih / [rebase 2000 = 100.0, s.a., cma 3]

# OECD Steel End-user Orders / Nov

Steel End-user output lags 2 months. Correlation 0.82.



— EU27,US,Japan New orders Automotive, Machinery, Construction & Consumer durables / oeeustord / [  
— EU27,US,Japan New orders Automotive, Machinery Construction & Consumer durables [s.a., cma 12]