

Recovering from the 1st Global Recession

- Global economy is accelerating
- China, Japan and Germany are leading
- US short term outlook more uncertain
- Commodity prices on the rise again
- If China does not slow, commodities could fuel inflation. This would complicate exit strategies
- Sovereign credit worries are here to stay
- 'PIIGS': hollow and unhelpful concept
- Watch divergences in inflation expectations

April 2010
(update: 07 April)

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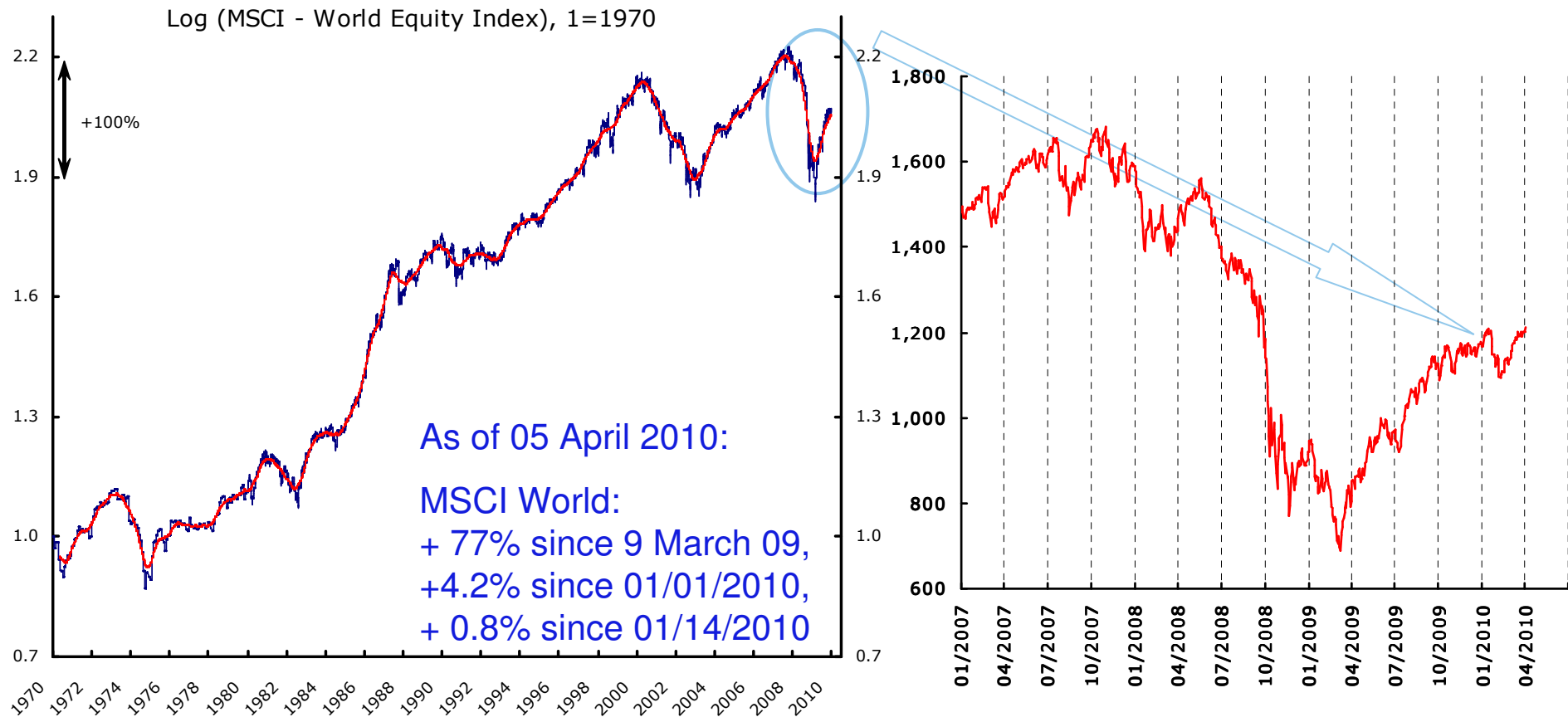
redefining / investment solutions

Key macro messages

- Robust global data (March) have alleviated fears of double dip
- Main case global scenario unchanged: long growth cycle, driven by domestic demand in large emerging economies and global capex
- China, Germany and Japan are leading the recovery
- Financial and consumer deleveraging in debt-driven economies mirrored by sharply rising government leverage
- High government debts: not a short term issue (savings glut) except where solvency is seriously questioned (Greece)
- Central banks will normalize monetary policies very cautiously
- *Risk #1: China overheating, fuelling commodity driven inflation*
- *Risk #2: over-reaction in markets (currencies, bond yields)*
- *Risk #3: negative feedback from financial regulation on lending*

What the markets say: equities

2009 : 'Deep V' ; 2010 : return of risk aversion?



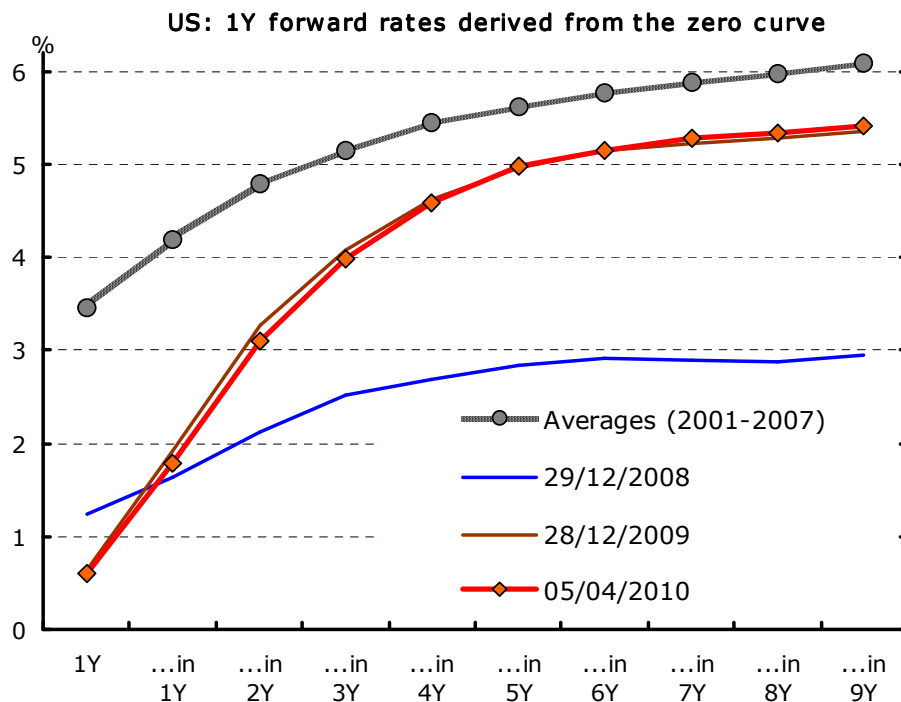
Source: MSCI, AXA IM Research

What the markets say: bonds

Bonds: Steady recoveries in US and EU...

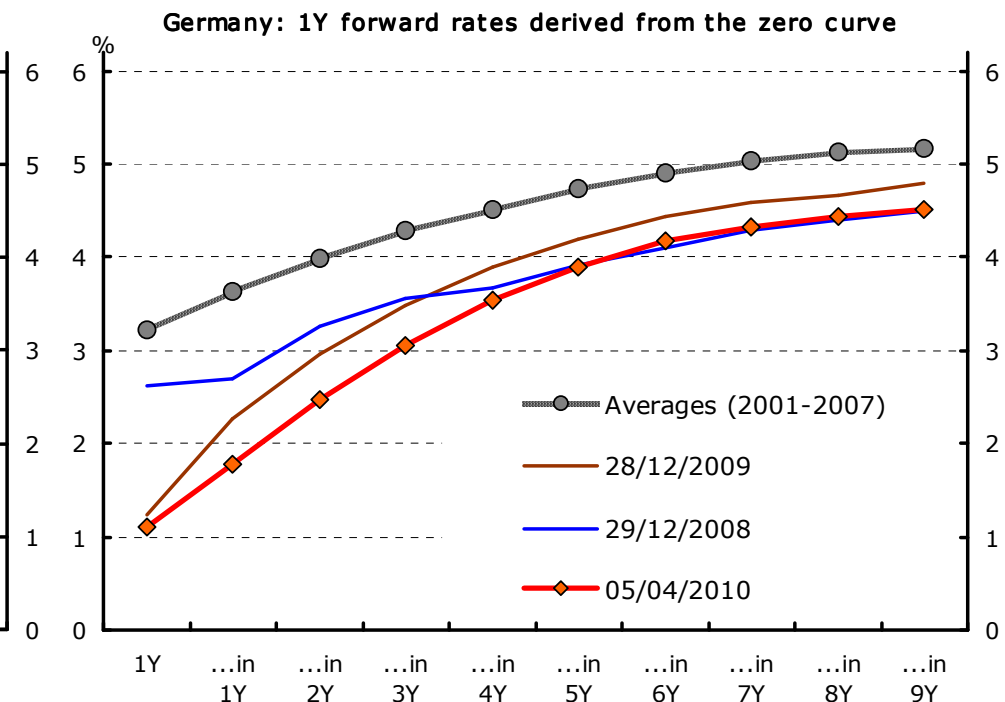
■ US yield curves:

- Very steep curve, steepening further
- Fed to start unwinding not before 2011
- Distant forward rates still < past cycle
- Breakeven 5Y in 5Y: 2.6%



■ German yield curves:

- Steep curve but flattening
- ECB already unwinding QE
- Distant forward rates 65bp < past cycle
- Breakeven 5Y in 6Y: 1.4%

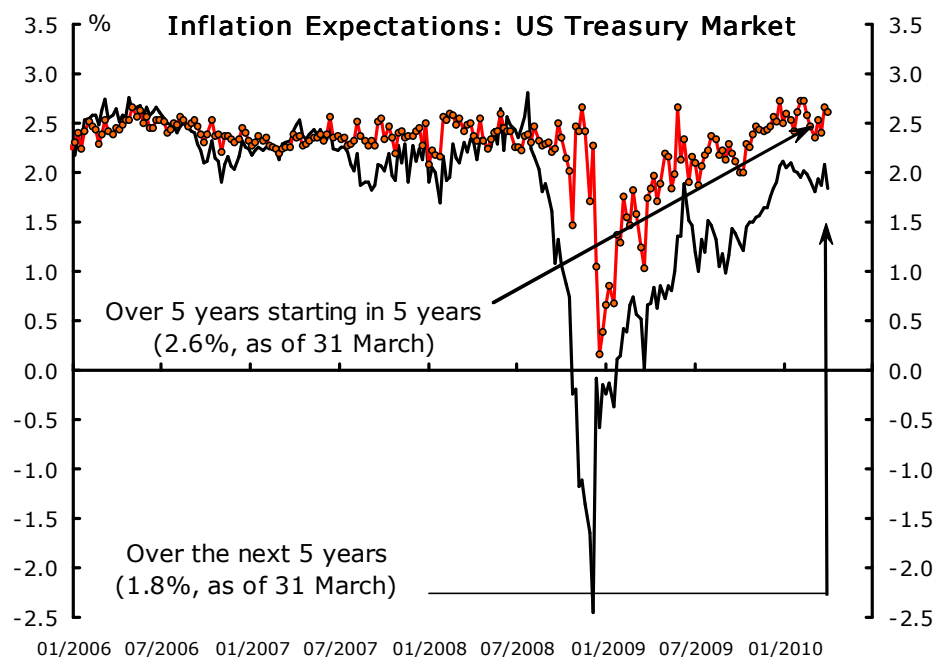


Source: Datastream, AXA IM Research

What the markets say ... with no (€) or mild inflation (\$)

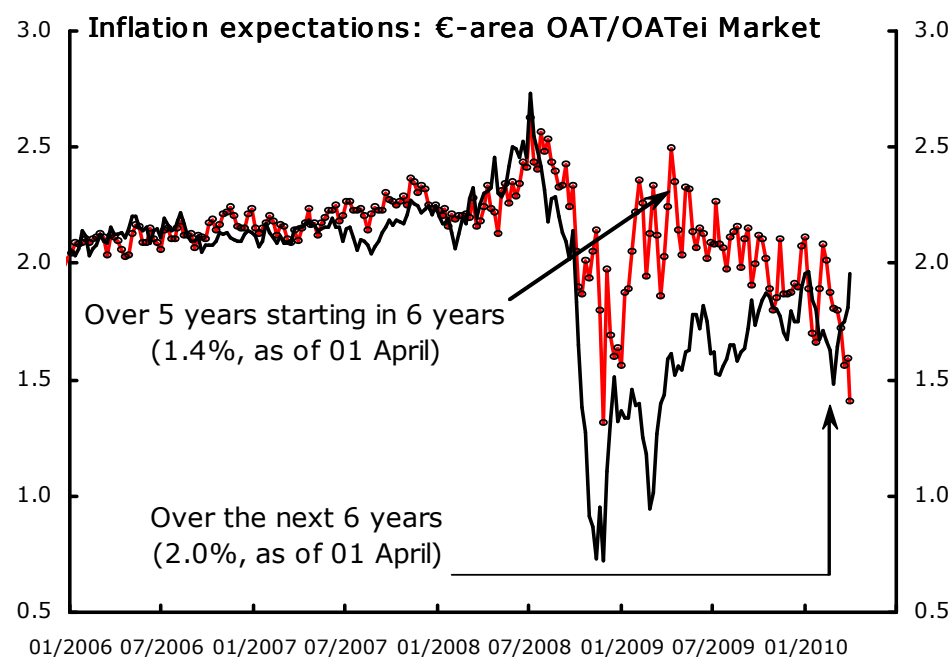
■ US TIPS inflation break-evens:

- Moderate inflation for the next 5 years
- Long term inflation expectations rising



■ €-Area inflation break-evens :

- Divergence with US becomes visible
- Much below 'revealed' ECB target (2%)



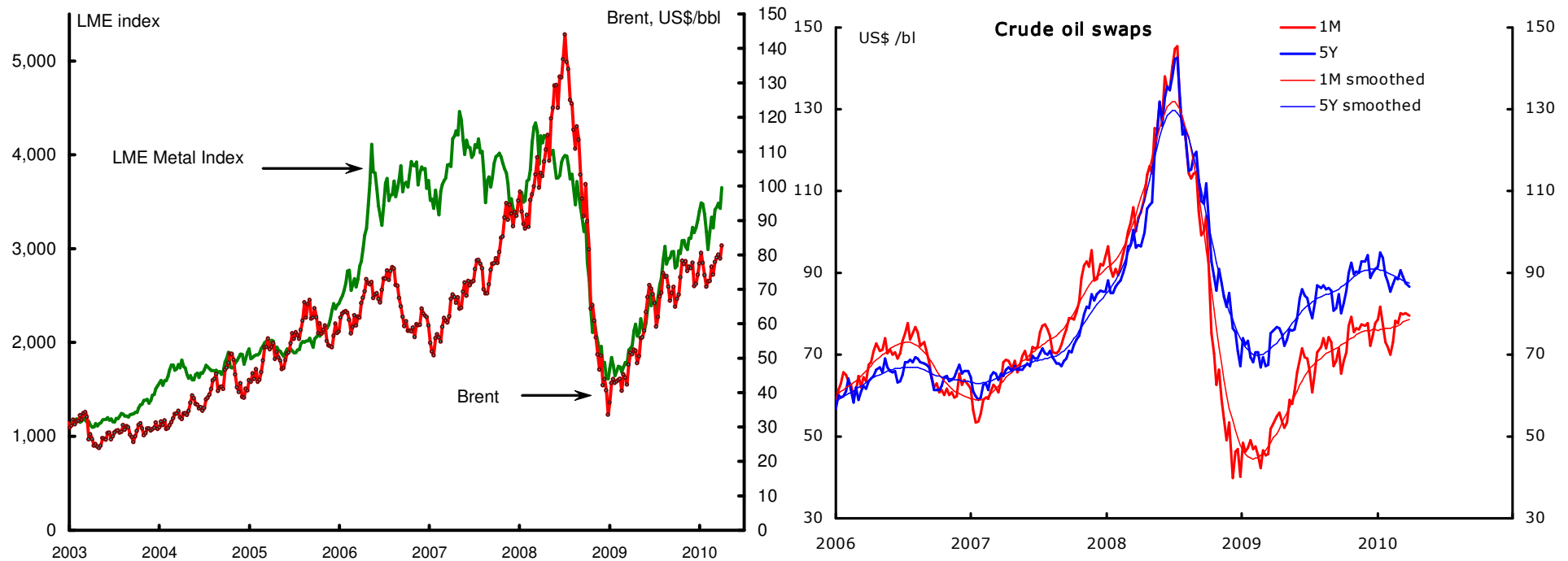
Source: Datastream, AFT, AXA IM Research

What the markets say

Commodities: It's all about China

Commodities markets pausing

- Oil glut + Chinese slowdown have put a ceiling to the rise of commodity prices
- Not a sign that the global economy is cooling, rather a positive factor for global consumer spending
- Risk: Chinese growth re-accelerates and oil futures start rising again

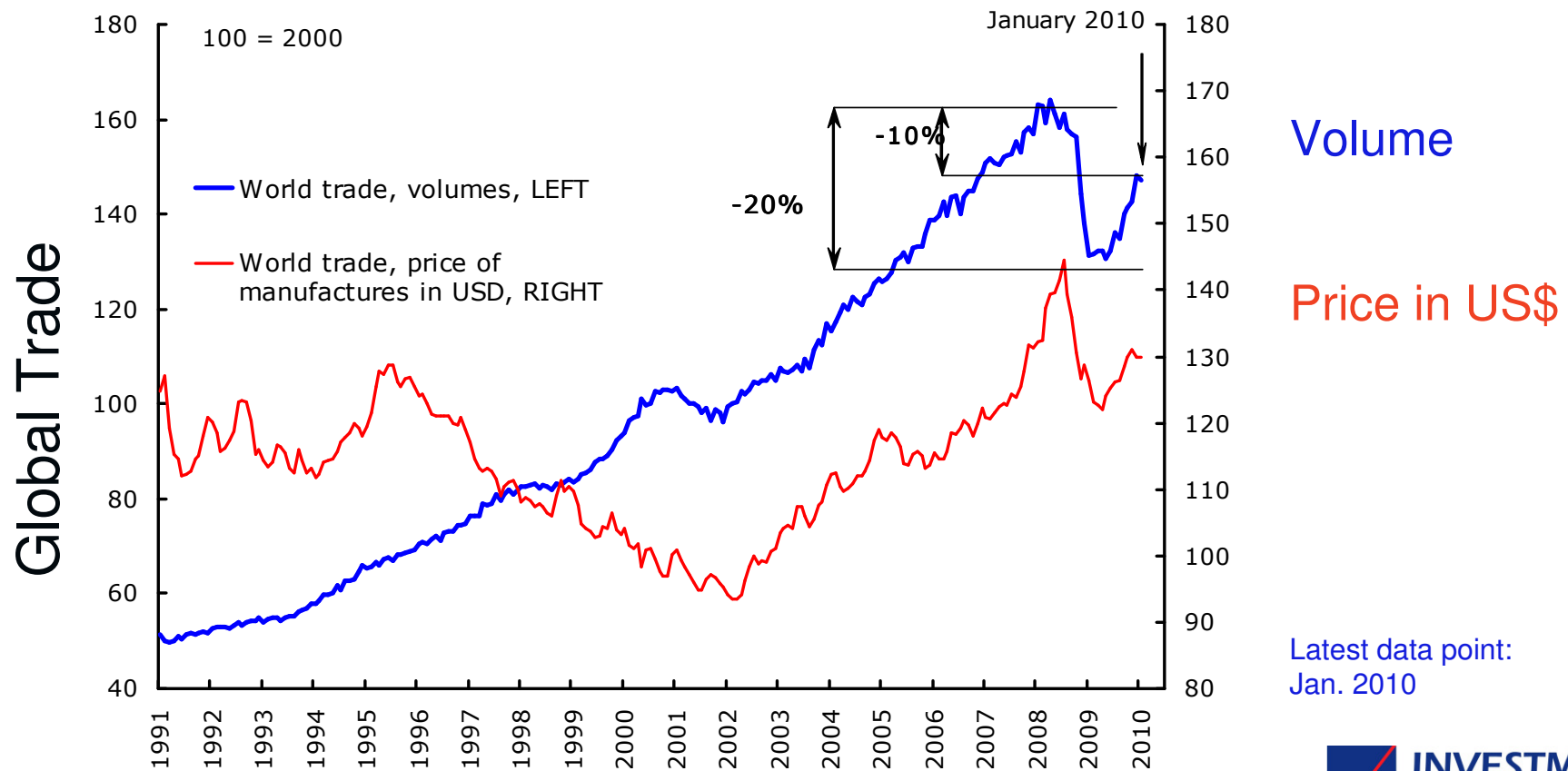


Latest data point: 01/04/2010

What real economic indicators say

Global trade up 13% since May

- A “deep-V” recovery pattern continues to unfold in global trade of manufactured products
- Volumes were down 0.7%M in January, a long due correction, weaker than expected
- Smoothed annualized spot growth rate was 14% in January vs. 16% in December
- The trade recovery was mostly fuelled by Asia – If China does not slow, a re-acceleration is possible.

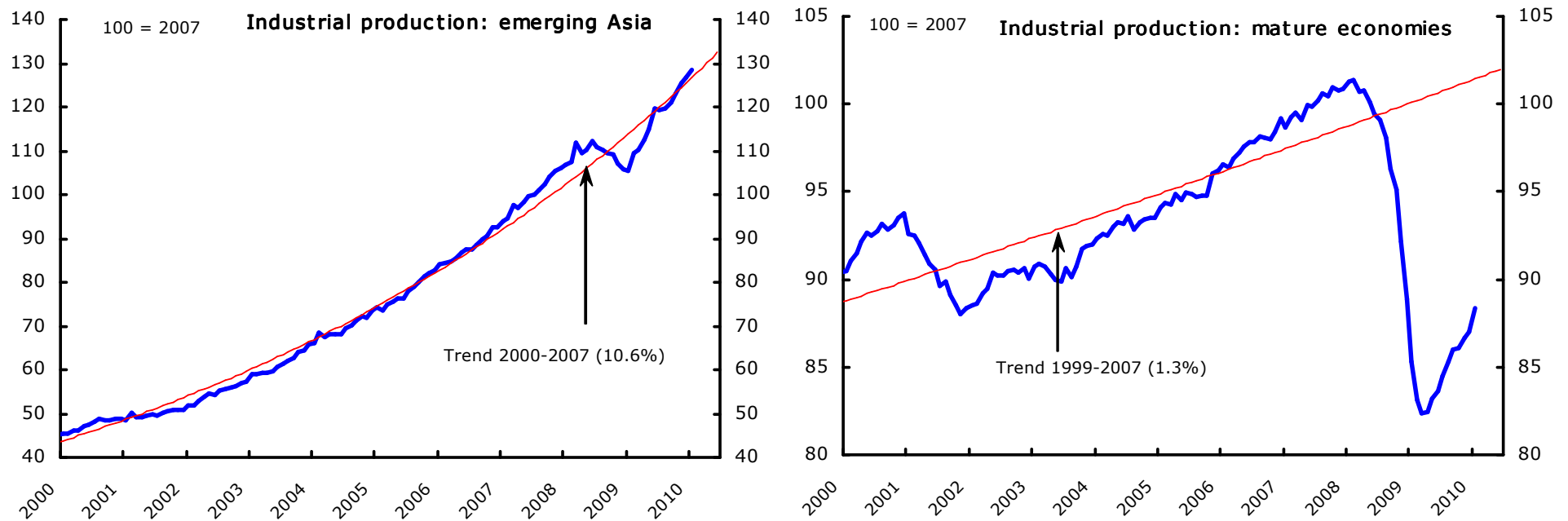


What real economic indicators say

The Great Divide

- Mature economies are up 1/3rd from the bottom
- Emerging Asia has already closed its output gap and risks overheating

Global Industrial Production

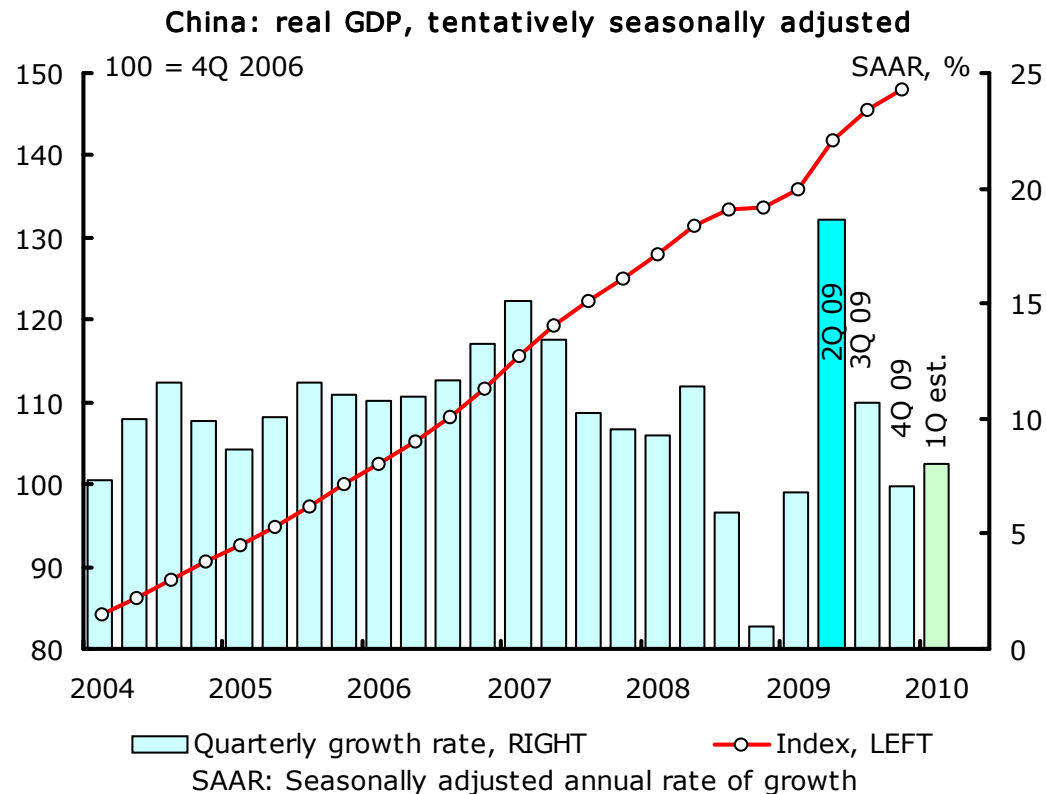


Source: CPB, AXA IM Research. Latest data: Jan 2010

What real economic indicators say China boomed in 2Q 09, then slowed. Enough?

- Chinese growth stalled in 4Q 2008, triggering an unprecedented policy reaction
- Large credit expansion and government spending boosted GDP in 2Q to close to 20%
- Half cooked tightening started in September 2008. This was partially successful.
- With global trade booming and domestic demand still red hot, China is on the verge of overheating
- Yuan appreciation and higher interest rates are needed to fend off inflation risks

Source: China NBS, AXA IM Research. Latest data: 4Q 2009

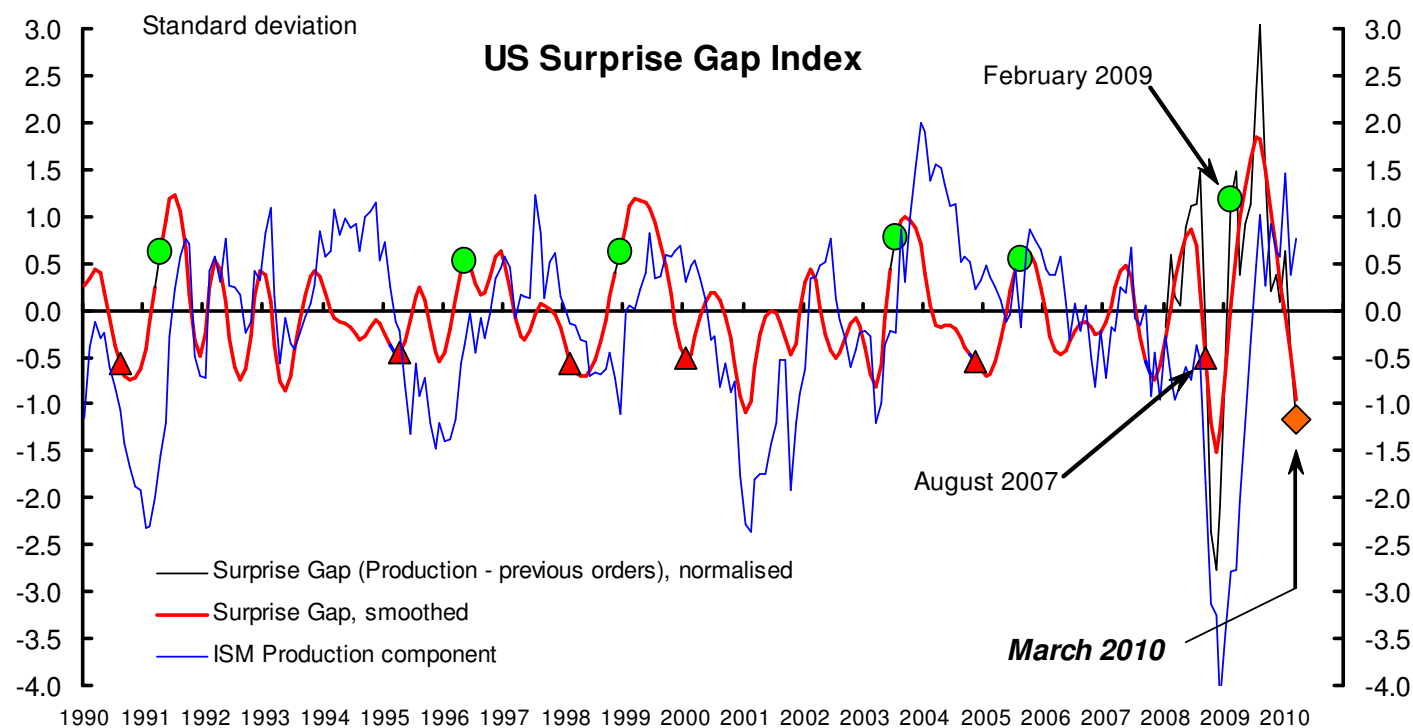


What real economic indicators say

US recovery: pause for breathe?

- US ISM-based Surprise Gap Index dipped further in March.
- Hit by snow storms? Could the appreciation of the USD slow the economy?
- Corporate and government spending are supporting demand, so this could be a false alarm

Source: ISM, AXA IM Research



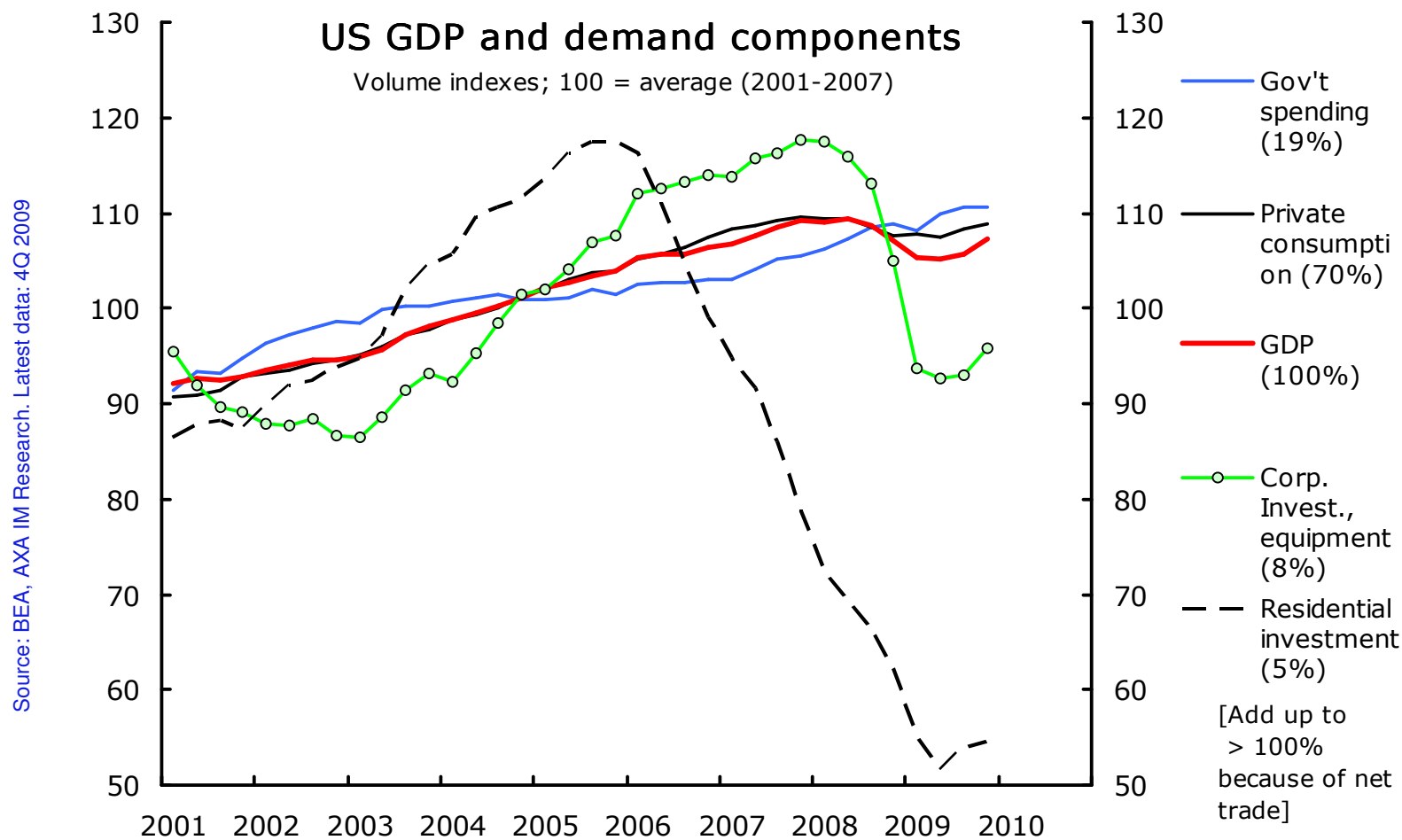
US Surprise Gap: Current production minus new orders 3M ago (ISM survey)

▲ Recession warning

● Recovery signal

What real economic indicators say US corporate investment recovering

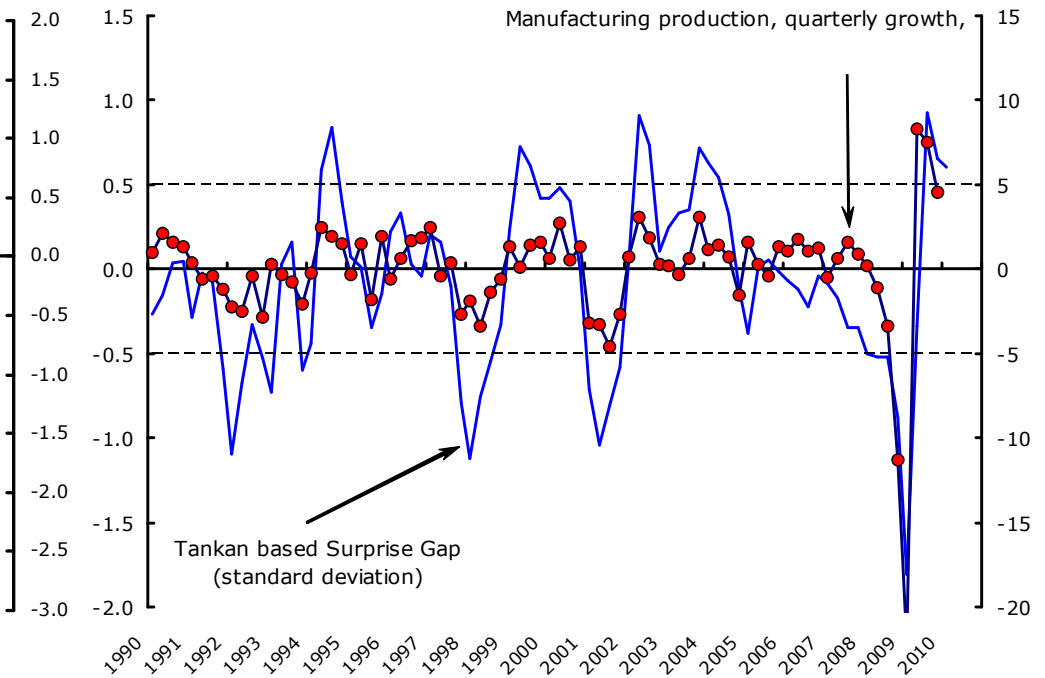
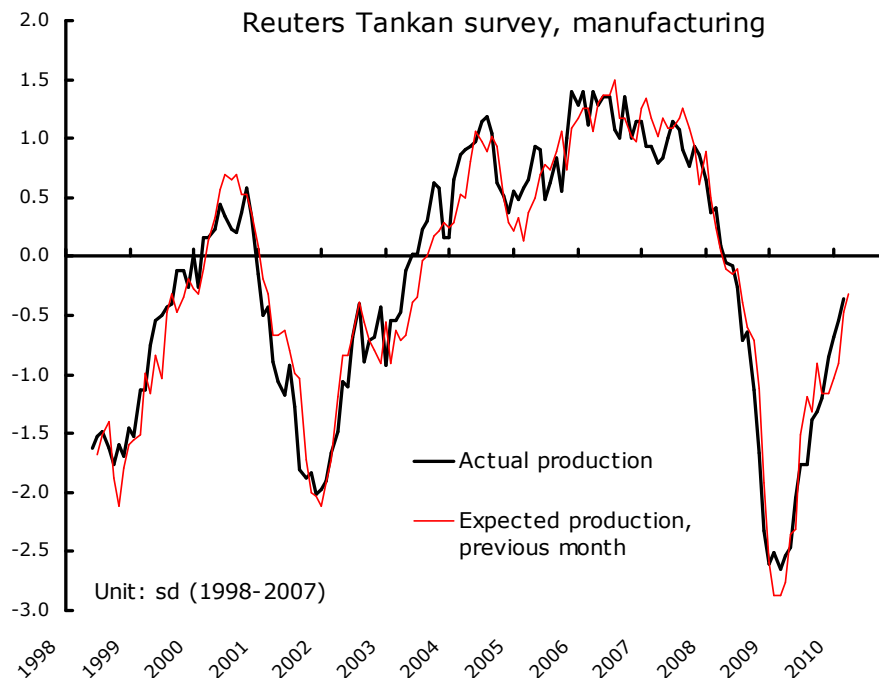
- US non financial companies well positioned to ride the recovery: low leverage, competitive currency. Watch capex on equipment



What real economic indicators say

Japan manufacturing: V-shaped recovery

- Strong rebound after very sharp contraction, mostly but not only due to exports
- Japan is well positioned to benefit from Asian domestic demand growth
- BoJ Tankan-based Surprise Gap in acceleration mode in March



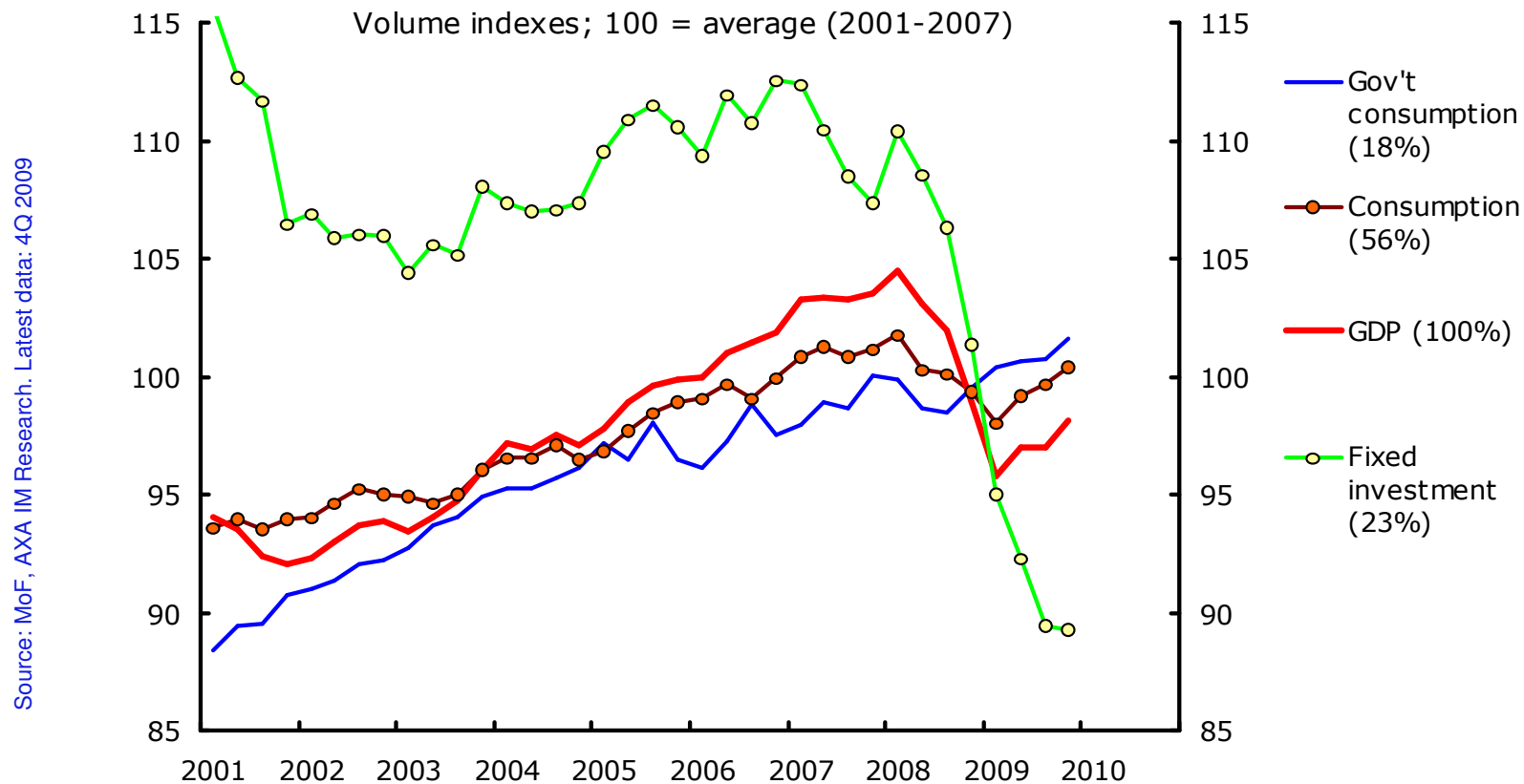
Source: MoF, BoJ, AXA IM Research. Latest data: March 2009

What real economic indicators say

Japan: capex the next booster

- Main driver of the Japanese recovery: exports, followed by consumption
- Capex was the main casualty of the collapse of global trade. It is the next booster

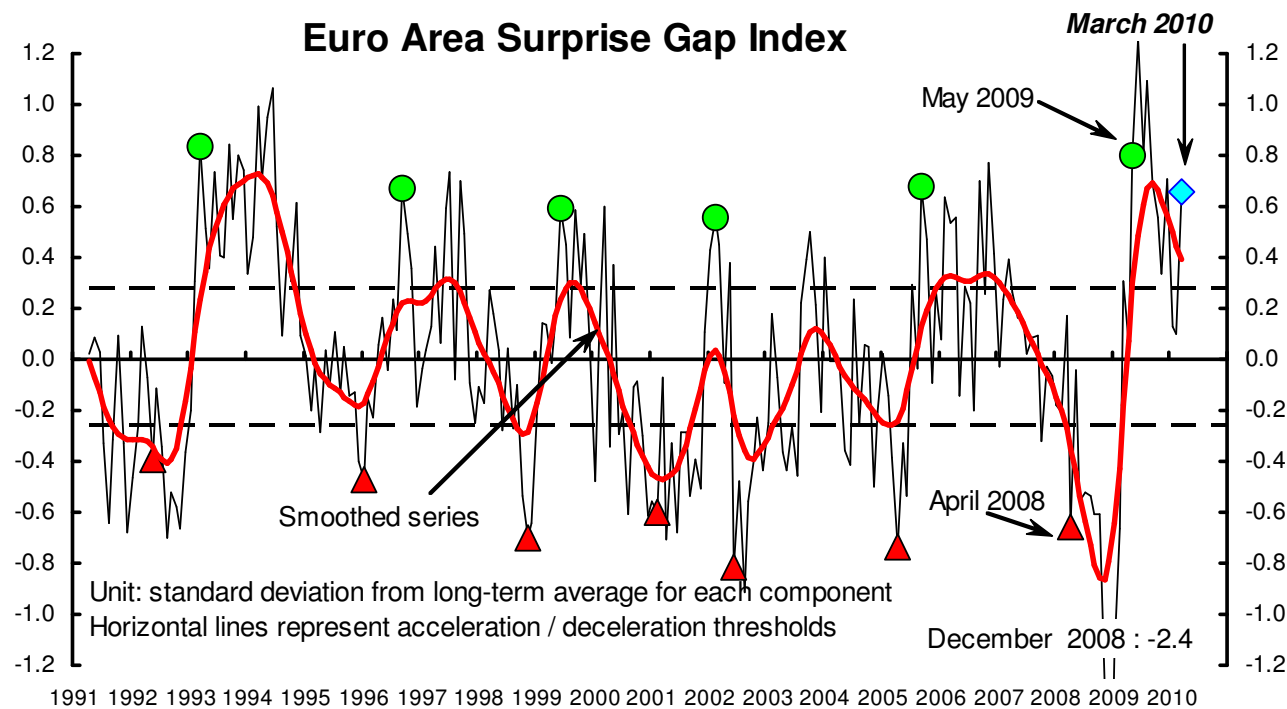
Japan: GDP and demand components



What real economic indicators say

€-area economy recovery continues

- The March €-area Surprise Gap is consistent with a sharp acceleration in production
- This indicator is base-effect-proof and points to possible upside surprises
- Overall, 2010 is more likely to surprise on the upside than on the downside



EU Surprise Gap: Current production minus production plans 3 months ago

▲ Recession warning Latest data: Mar. 2010 ● Recovery signal

Source: Ifo, Insee, Isae, INE, CBS, BNB, AXA IM Research

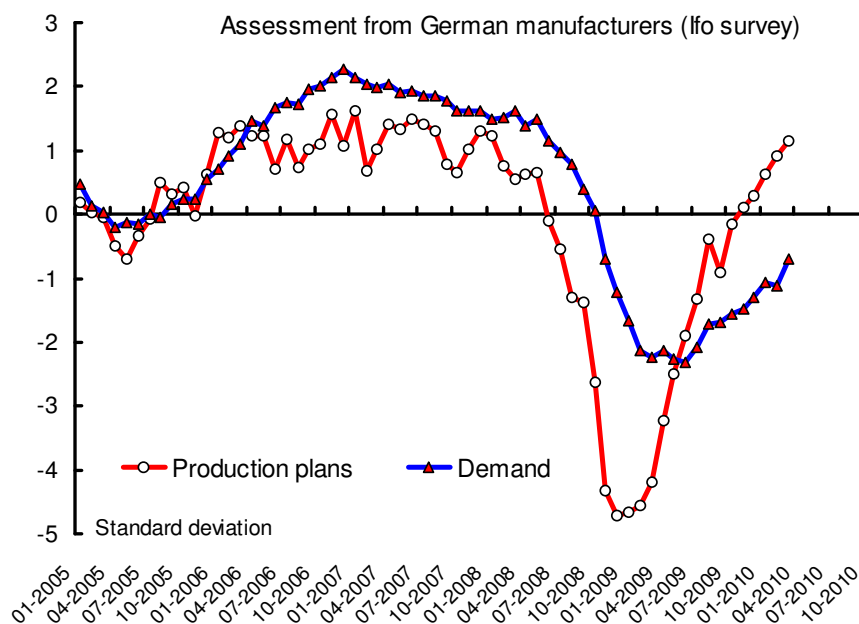
What real economic indicators say

Inventory booster now in full swing

■ Demand healing is slow but steady

- German manufacturers: demand is soft, but production needs to accelerate
- Euro area manufacturers: inventories 'very insufficient'

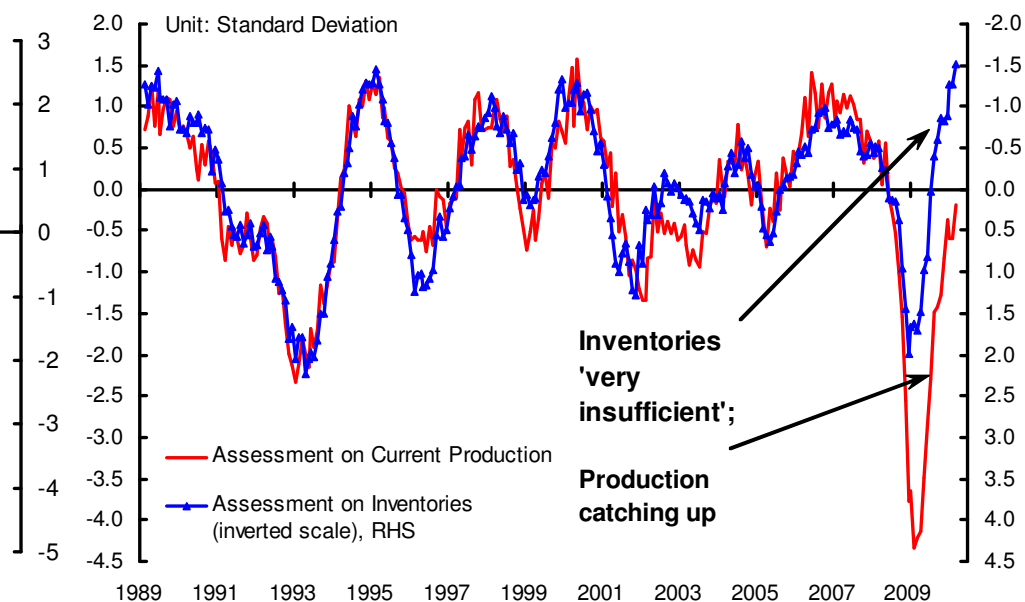
Germany



Source: Ifo, AXA IM Research

Latest data: March 2010

Euro Area



Source: Ifo, Insee, Isae, CBS, BNB, AXA IM Research

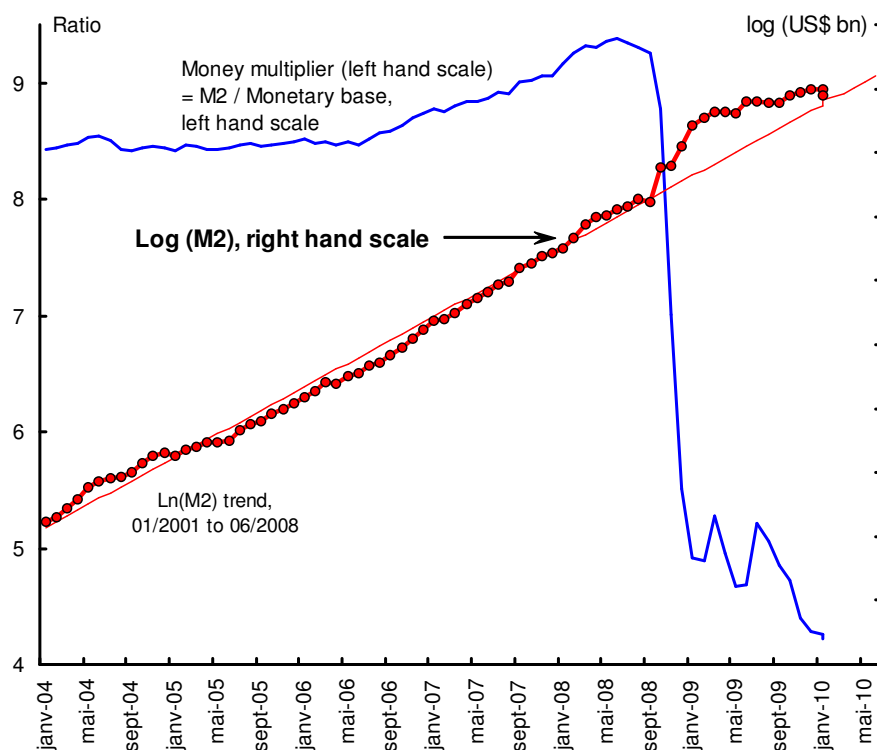
What money says

Money supply is not growing

■ Money multipliers have collapsed for both Fed and ECB

- Fed has managed to boost M2 post-Lehman, but M2 is now flattish (1.5% 3M/3M an.)
- ECB has managed to boost M1, not M3: -2.4% 3M/3M annualized in February

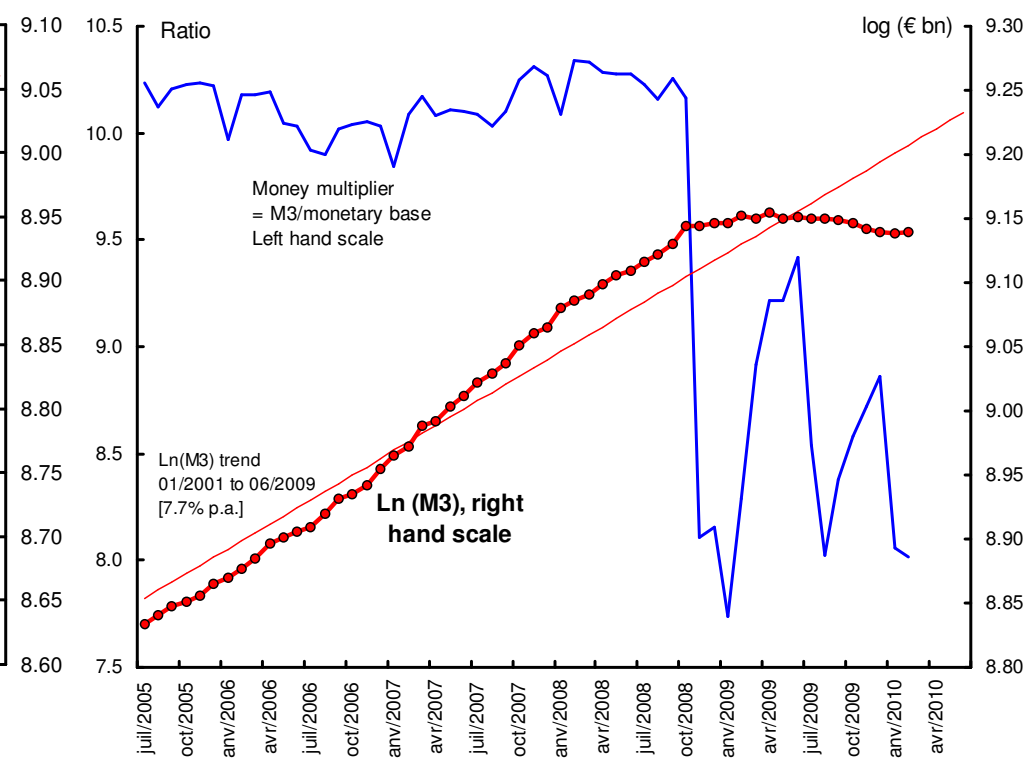
US: M2 and multiplier (M2/monetary base)



Source: Federal reserve board

Latest data: February 2010

€ area: M3 and multiplier (M3/monetary base)



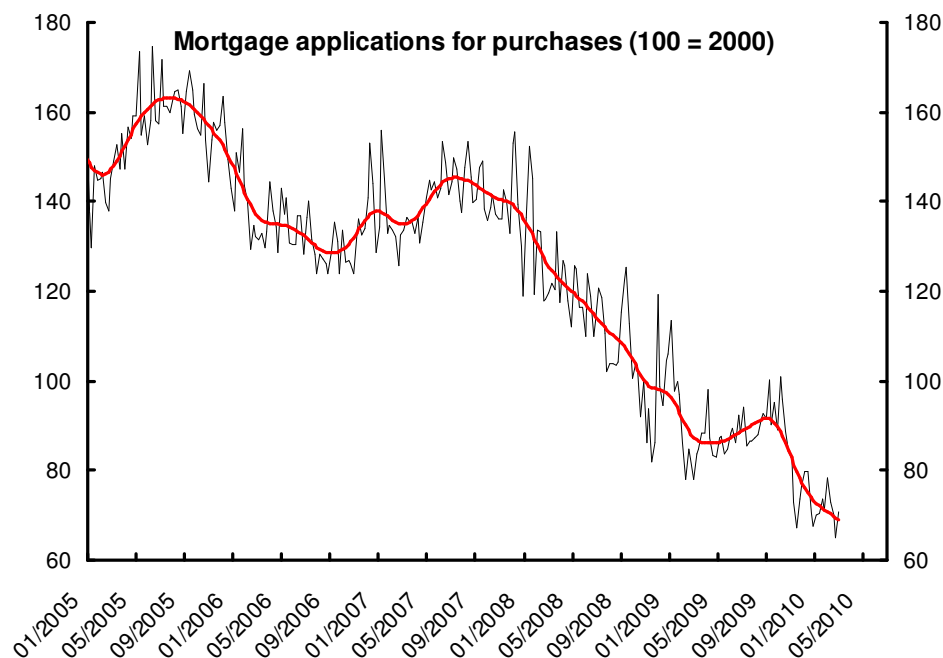
Source: ECB monthly bulletin

What loans say

Financing channels have not yet healed

- US: mortgage applications for purchases are still falling (20% below 2000 levels)
- Euro area: mortgage credit healing, net credit flows to non financial companies flat

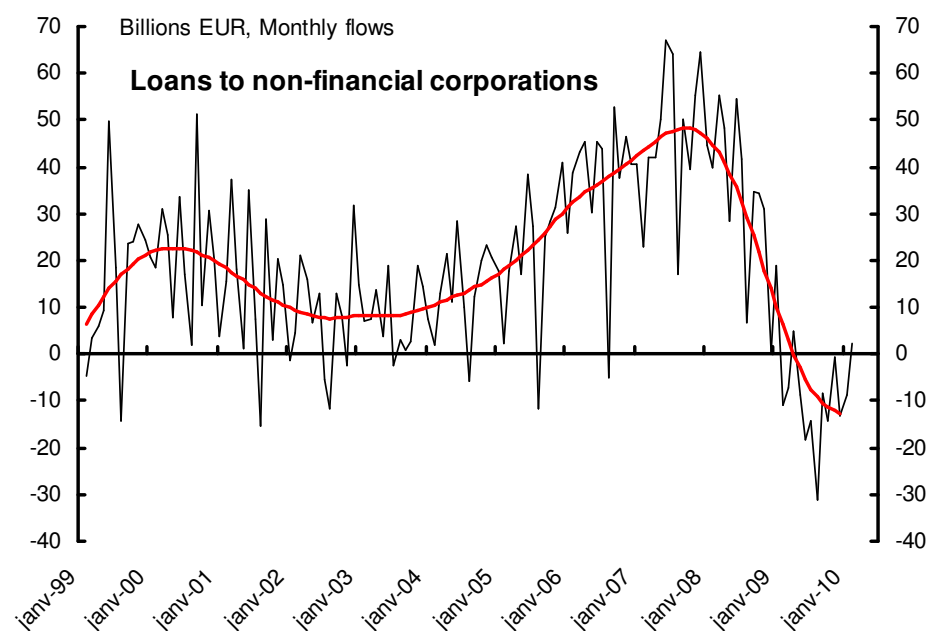
US: mortgage applications



Source: Federal reserve board

Latest data: February 2010

€-area: loans to non-financial companies (flows)



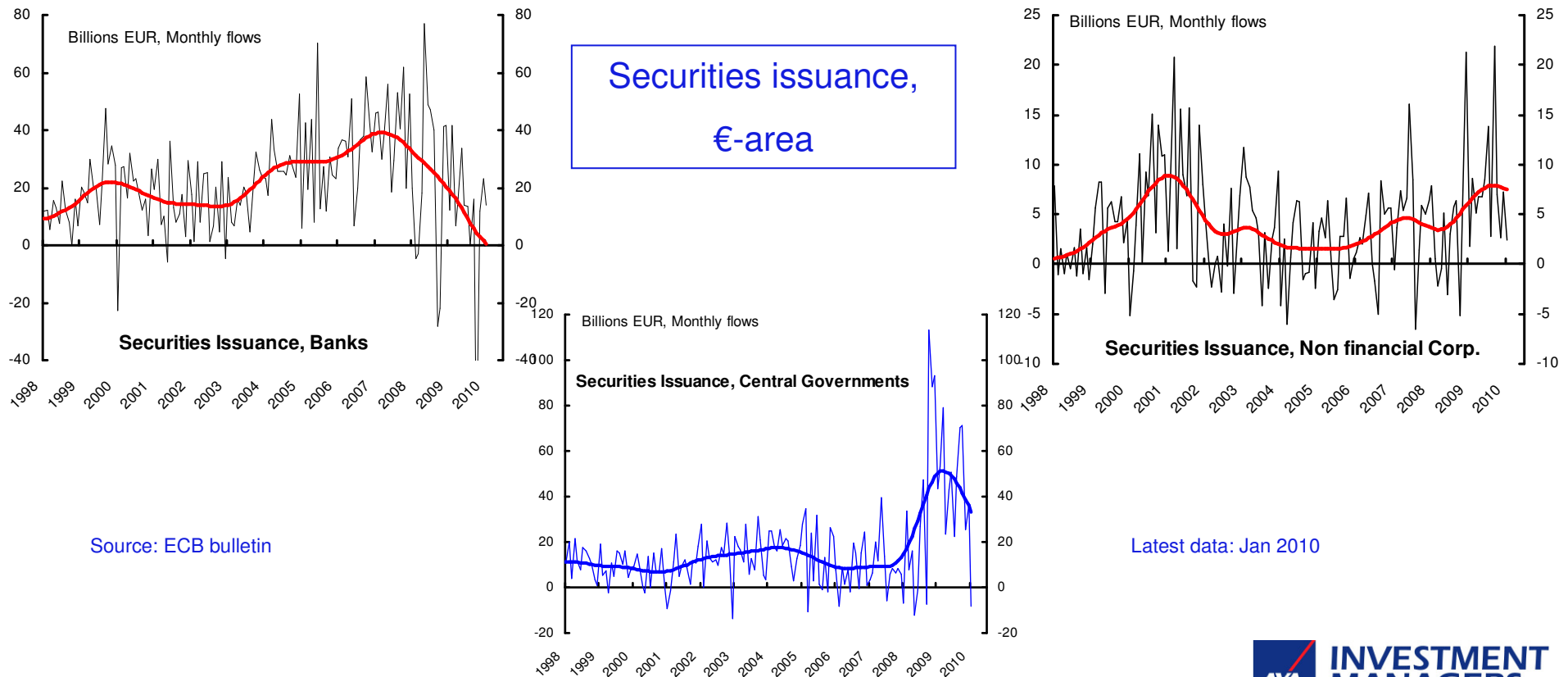
Source: ECB monthly bulletin

Latest data: February 2010

Risk Assessment

Headwind #1: Financial channels

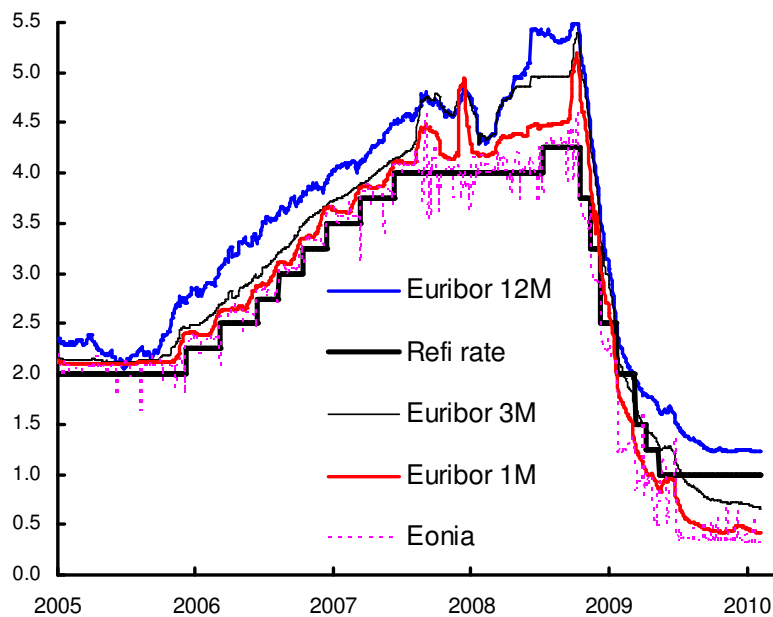
- Central banks still deeply involved
- Capital markets (equity/credit) wide open for governments and non-financials
- Securitized products markets still choked
- BIS: banks have US\$7 Tn short term debt to refinance before 2012
- A sharp rise in LT rates and/or a failure to revive securitization would threaten the recovery



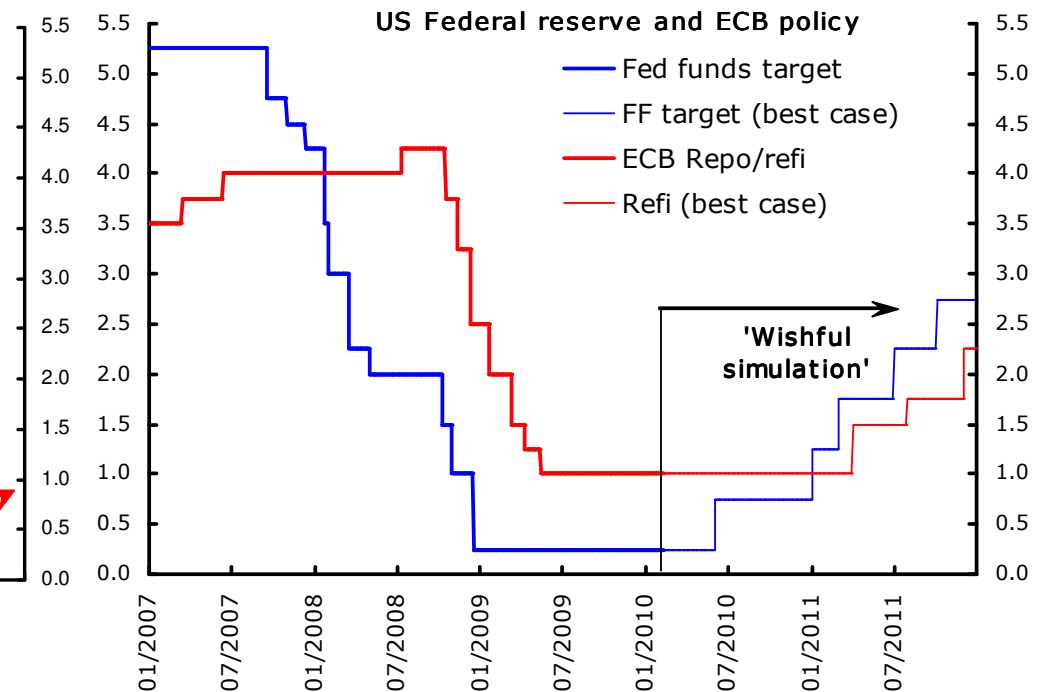
Risk Assessment

Headwind #2: Uncertain exit strategies

- Fed is caught in cross-currents: Congress (keep rates at zero) and markets (mind inflation)
- Fed's exit strategy has not yet been clarified (Fed funds, reverse repo, balance sheet?)
- ECB is not in safe waters either: macro and financial stability are entangled
- As ECB reverts to pre-crisis modus operandi, Euribor will start rising toward refi (1%)
- Good news: ECB will not revert to 'normal' collateral rules in Jan 2011 and will introduce haircuts



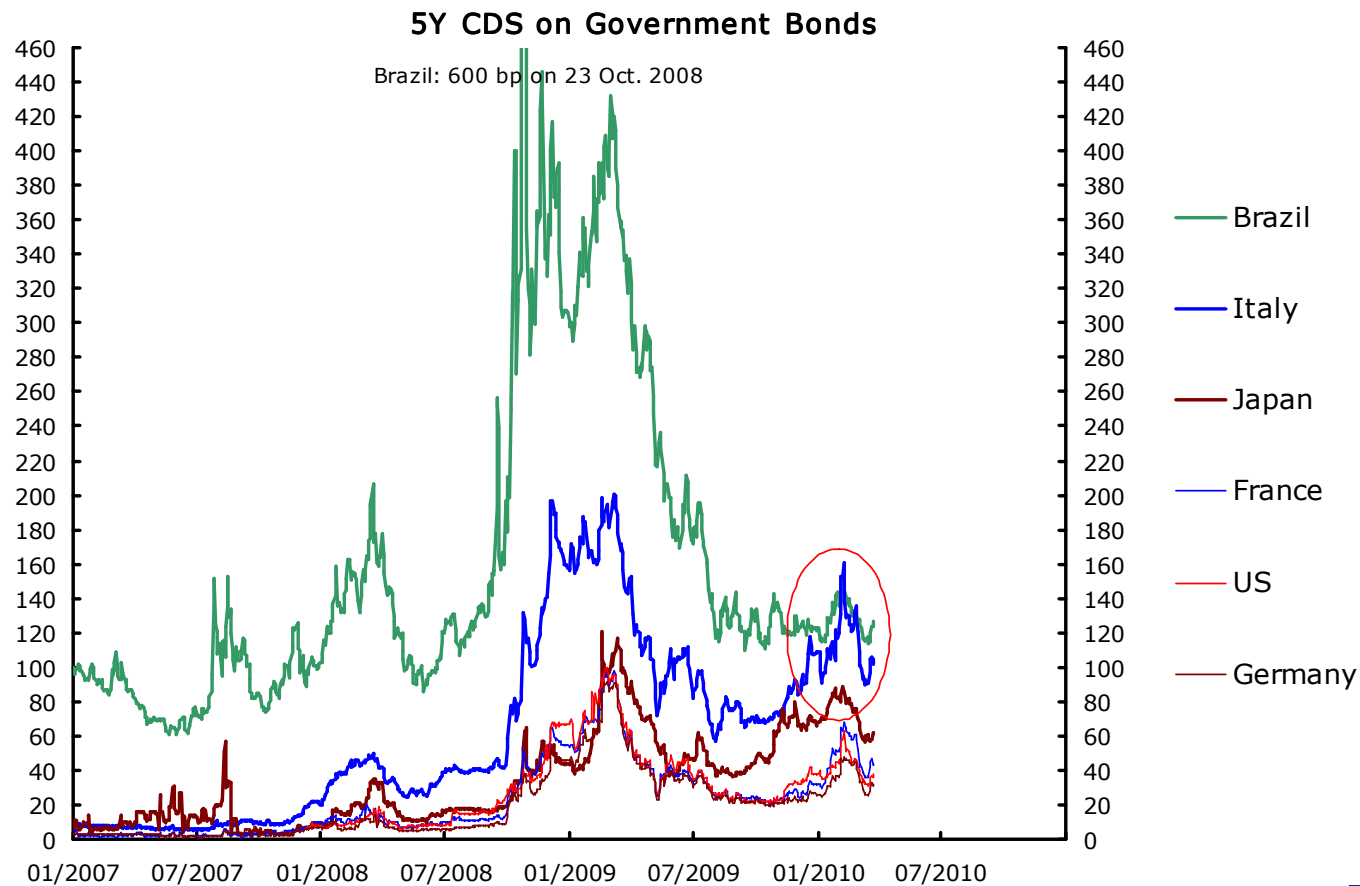
Source: Federal reserve, ECB, AXA IM Research



Risk Assessment

Headwind #3: Sovereign credit scare

- Oecd countries sovereign credit quality is questioned by the markets
- While the long term debt issue is very serious and challenging, it is a long-term issue
- *Zeitgeist*: Brazil is now competing with Italy

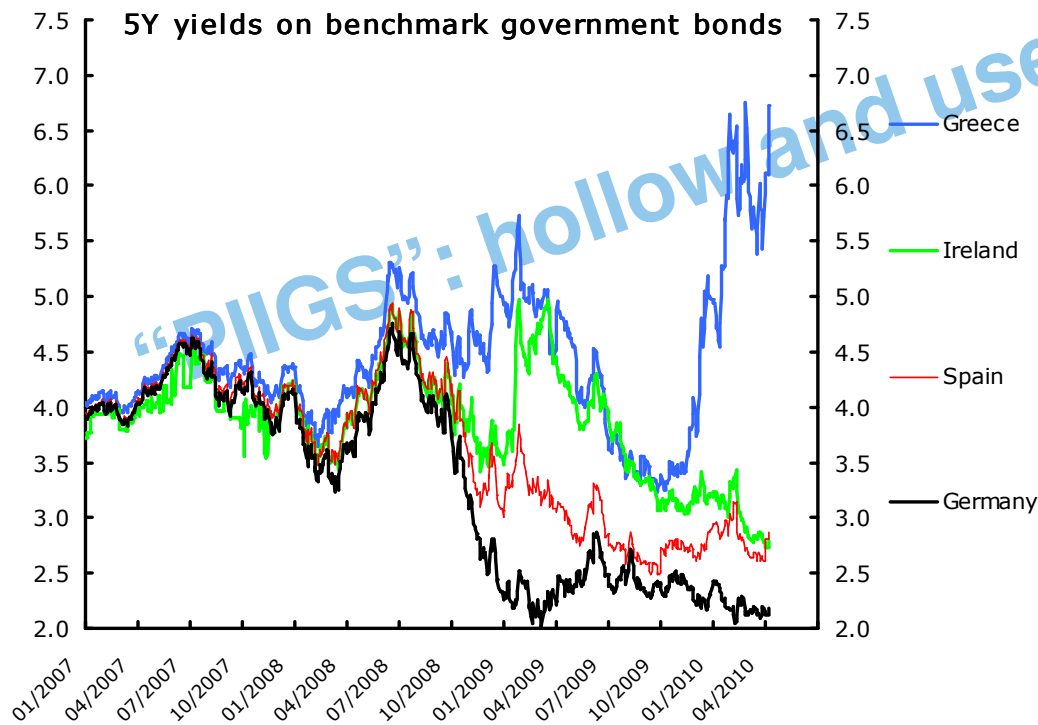


Risk Assessment

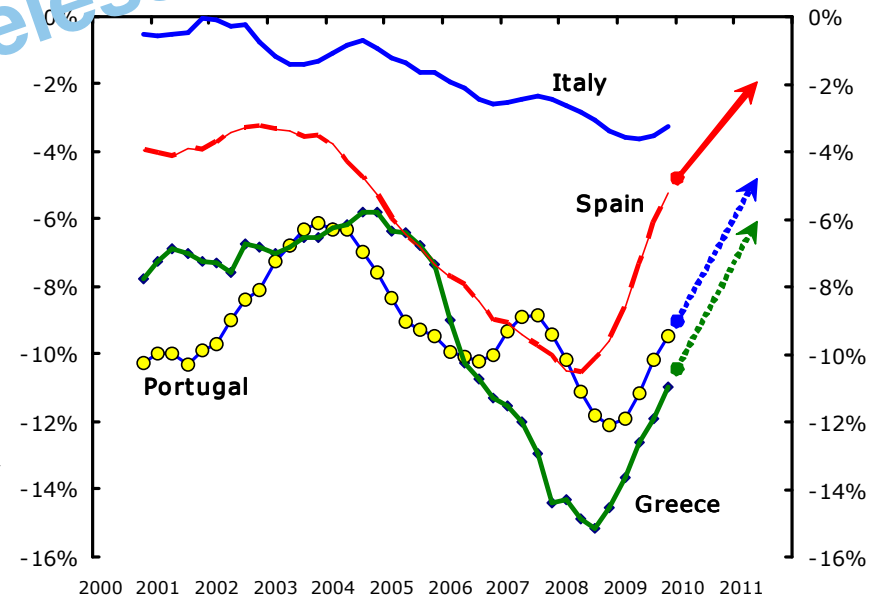
Headwind #3: Sovereign credit scare

- The Greek case is also a short-term issue:
- C/A deficit and government's funding gap are on collision course
- In the end, the cornerstone of fiscal stabilization is: being underwritten by the population
- The end game: with worsening market conditions, Greece will have to call for help soon

5Y Bond yield spreads



Current account balance, % of GDP



Long term viability of €-area questioned

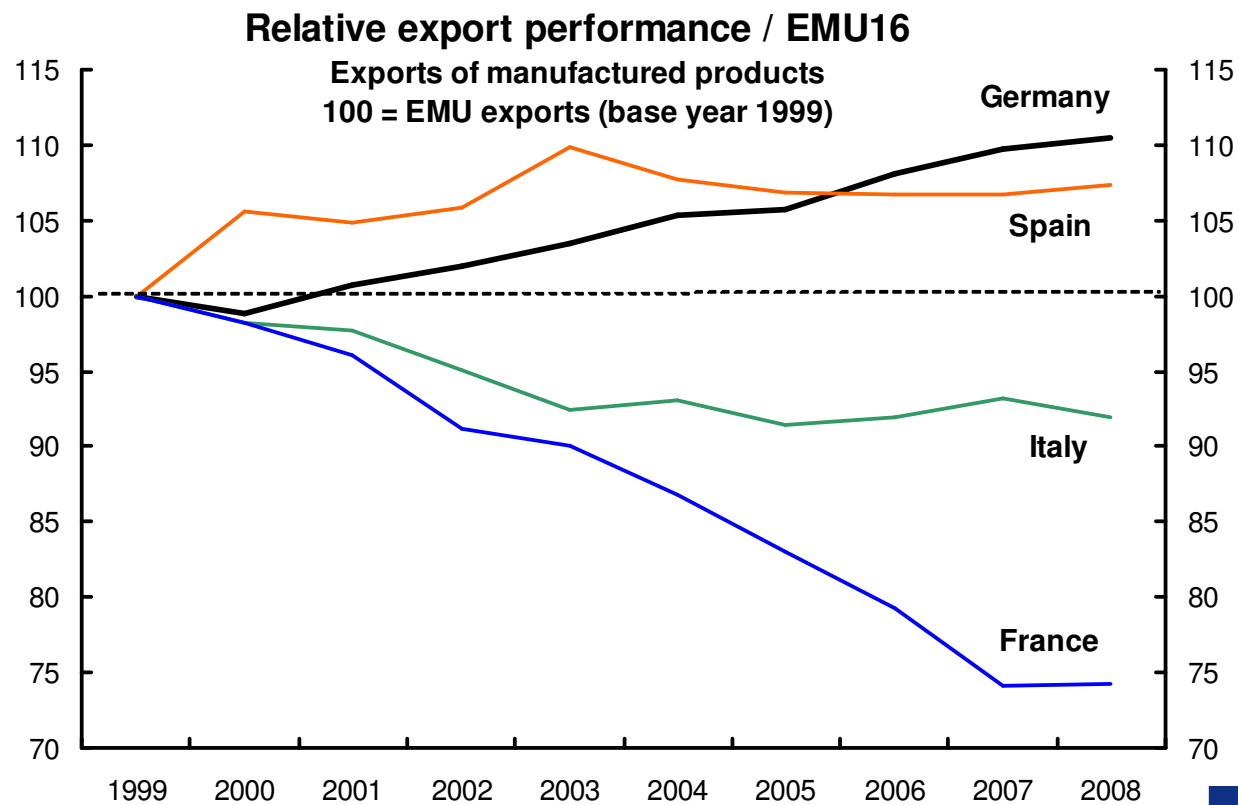
- **€-area inconsistent triple ‘NIET’:**
 1. **No to fiscal federalism (no taxes to Brussels)**
 2. **No bailout (*sine qua non* condition set by Germany)**
 3. **No sanction for fiscal sinners (*de facto*, not *de jure*)**

- **NIET #1 and #2 are here to stay**
- **NIET #3 opens the door to (fiscal) free riders**
- **This sounded abstract in 2004...**
- **... Greece has proven that high free riding is possible**
- **To be sustainable, €-area need a binding fiscal code**
- **Without a governance reform, doubts about the long term viability of the €-area are warranted**

Risk assessment

€-area imbalances (1)

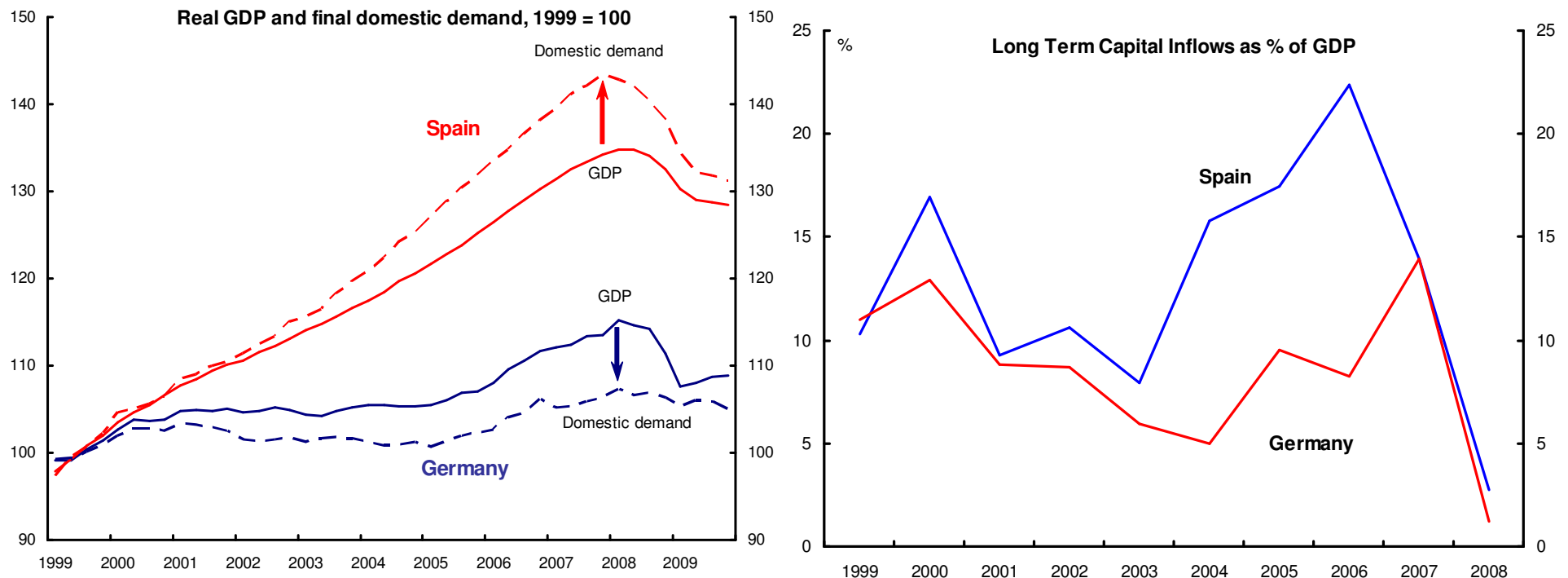
- Conventional wisdom: Hypercompetitive Germany vs. lame duck Spain, France in the middle
- Yet, unit labor costs comparisons are deeply flawed...
- .. and actual exports tell a very different story



Risk assessment

€-area imbalances (2)

- **My view: competitiveness divergences are not the main issue**
- **Widening domestic demand divergences are not sustainable**
- **Neither are divergences in terms of attractiveness for foreign capital**

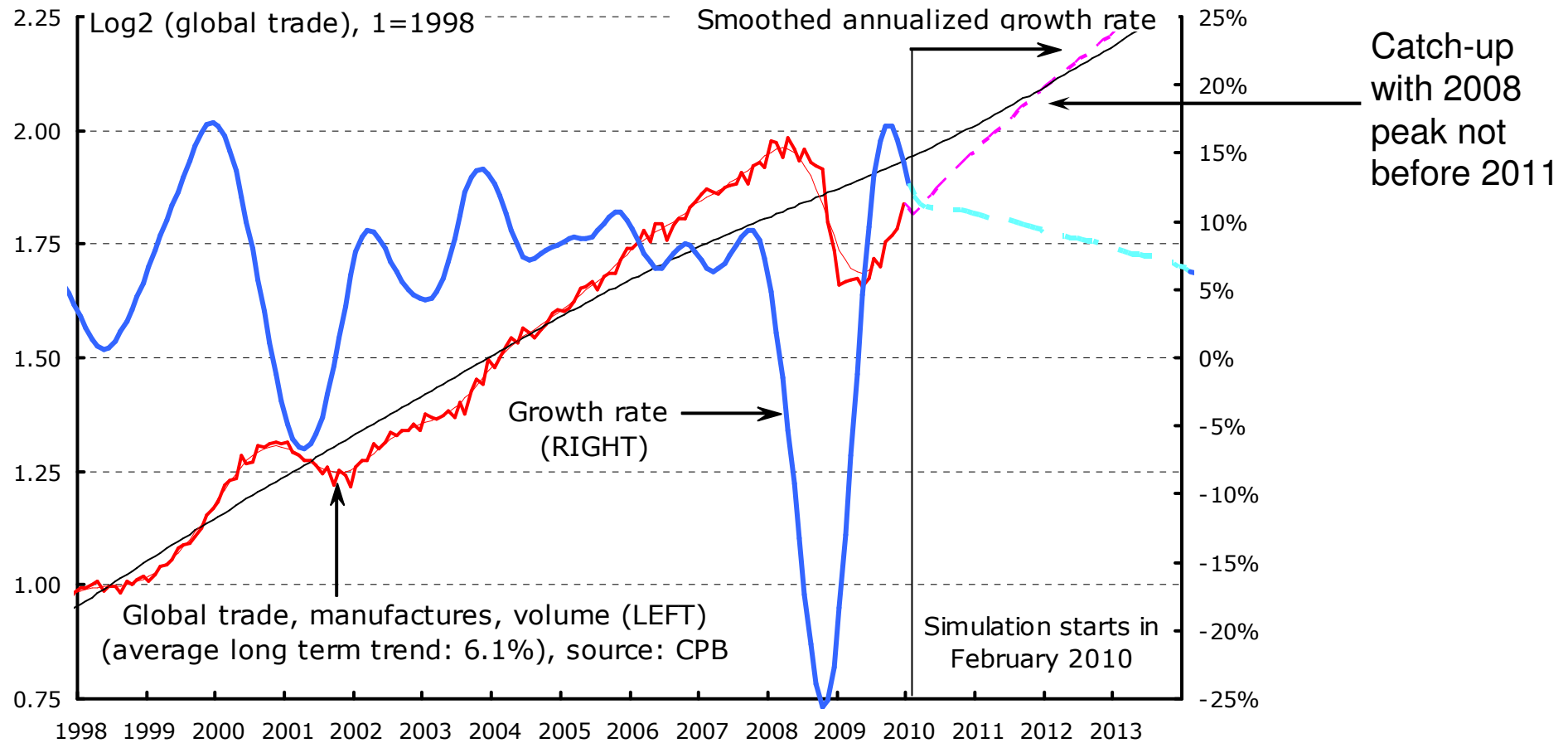


Source: Eurostat, AXA IM Research

Baseline for 2010-2013

- **The V-shaped recovery that started in mid-2009 continues in the medium term, helped by the sharp recovery in global trade already underway and the rise in corporate profits.**
- **On the demand side and beyond the effect of demand-boosting policies, growth is coming from emerging economies, mostly in Asia, and from the global capex cycle, more than by consumer spending in high income economies.**
- **Although GDP growth is insufficient to fully plug the large output gap dug out by the Great Recession in high income economies, strong growth in emerging giants fuels domestic inflation in these economies (because of inappropriate exchange rate policies) and pushes commodity prices on a steep curve. Crude oil quotes cross the \$100 line again before 2013.**
- **As global inflation risks rise, the US Fed proves more tolerant than the ECB. Yet, real interest rates rise more in the US than in the euro area, helping the US dollar to start re-appreciating toward the end of the forecasting period.**

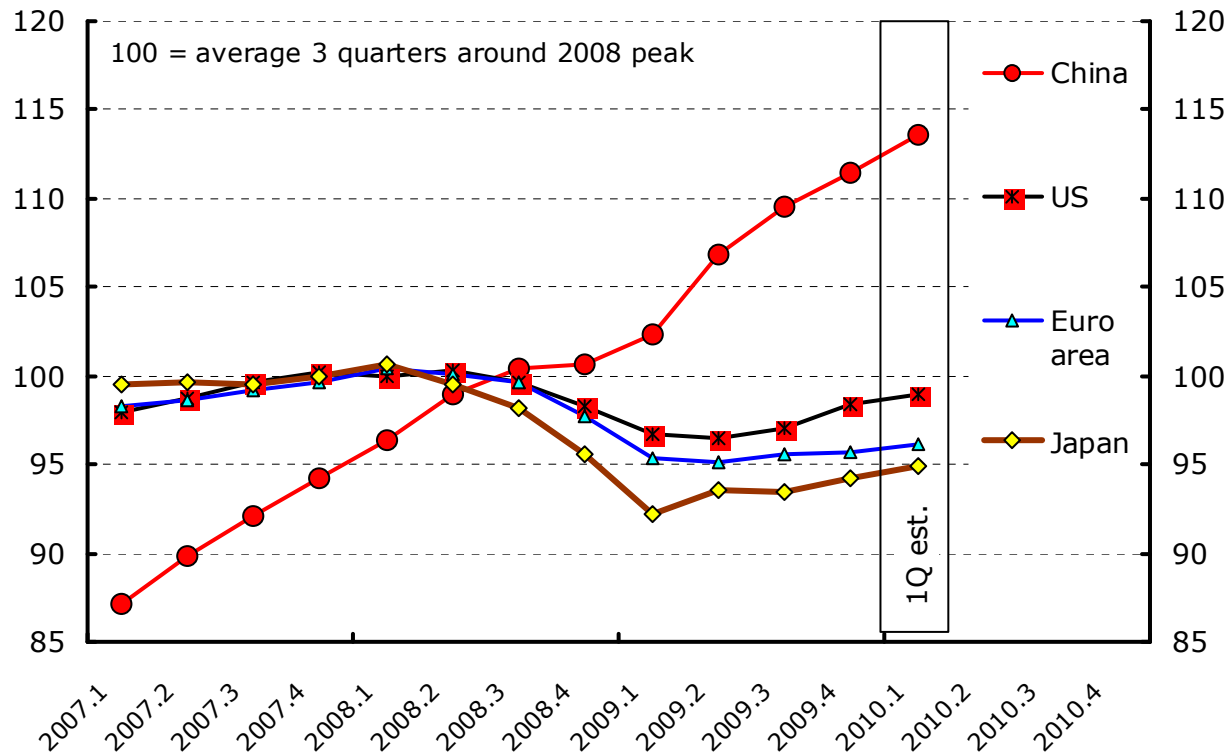
What a V-shaped recovery means for global trade



Source: CPB, AXA IM Research, latest data January 2010

How China leapfrogged US-EUR-JP (validating the 'Red Queen's Theorem')

Seasonally adjusted GDP
(tentatively adjusted in the case of China)



Source: Quarterly National Accounts, constant price basis, AXA IM Research, latest data: 1Q 2010

"Now, here, you see, it takes all the running you can do, to keep in the same place"
The Red Queen, 'Trough the Looking Glass', Lewis Carroll

Two themes for the post-crisis world

1. Unraveling China America

Orderly or chaotic?

2. Coping with mountains of government debt

Is inflation the end game?

Warning: themes partially intertwined

Unraveling China **America**

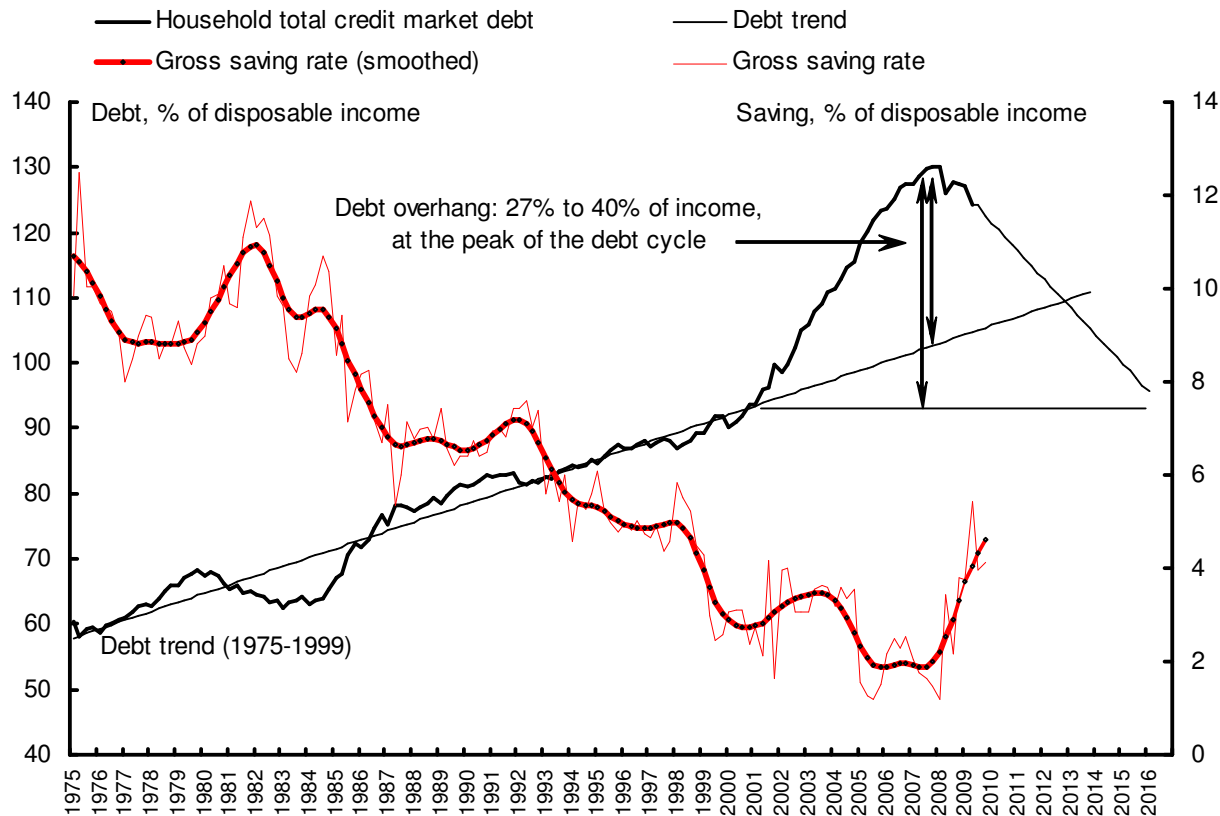
Future trends for the US economy:

1. Higher savings = Subdued consumer spending growth
2. Higher taxes (higher marginal rate, VAT?)
3. More government spending on infrastructures
4. Pro-industry policy bias (clean energy, healthcare...)
5. Weak dollar (reserve currency status questioned)
6. US manufacturers back in global markets

In the end, acceleration of productivity or inflation or both

Deleveraging US consumers will take several years

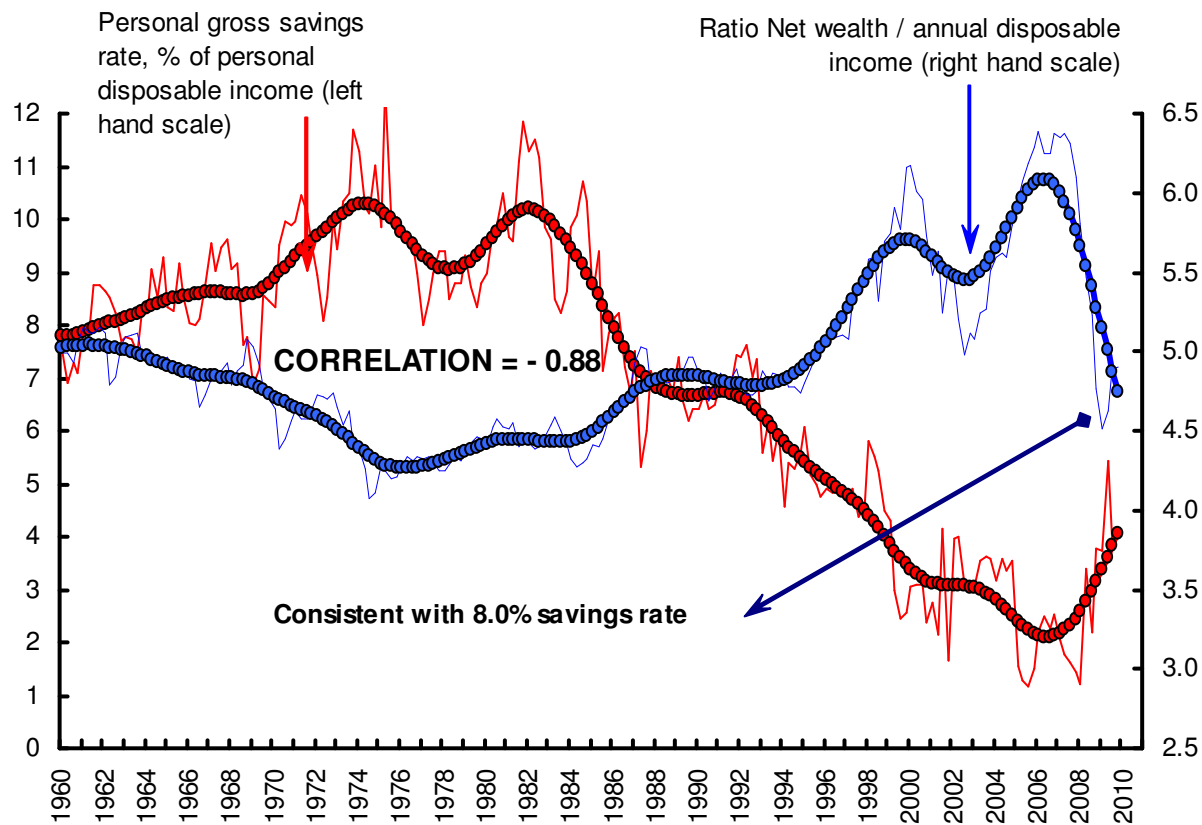
- Consumers' debt overhang reached 30% to 40% of disposable income at the peak of the debt cycle (early 2008).
- Deleveraging has already started but may take 3 to 6 more years (return to trend vs. return to 1999 debt / income ratio).



Source: Federal Reserve Board, NIPA, AXA-IM Research, latest data: 4Q 2009

Tectonic change: US consumers have lost \$ 12 Tn since 2Q 07. Time to save, now

- US households' wealth (real and financial) has shrunk. The wealth-based saving model that took off in the late 90's works no more. Back to the old model: saving from labor income.

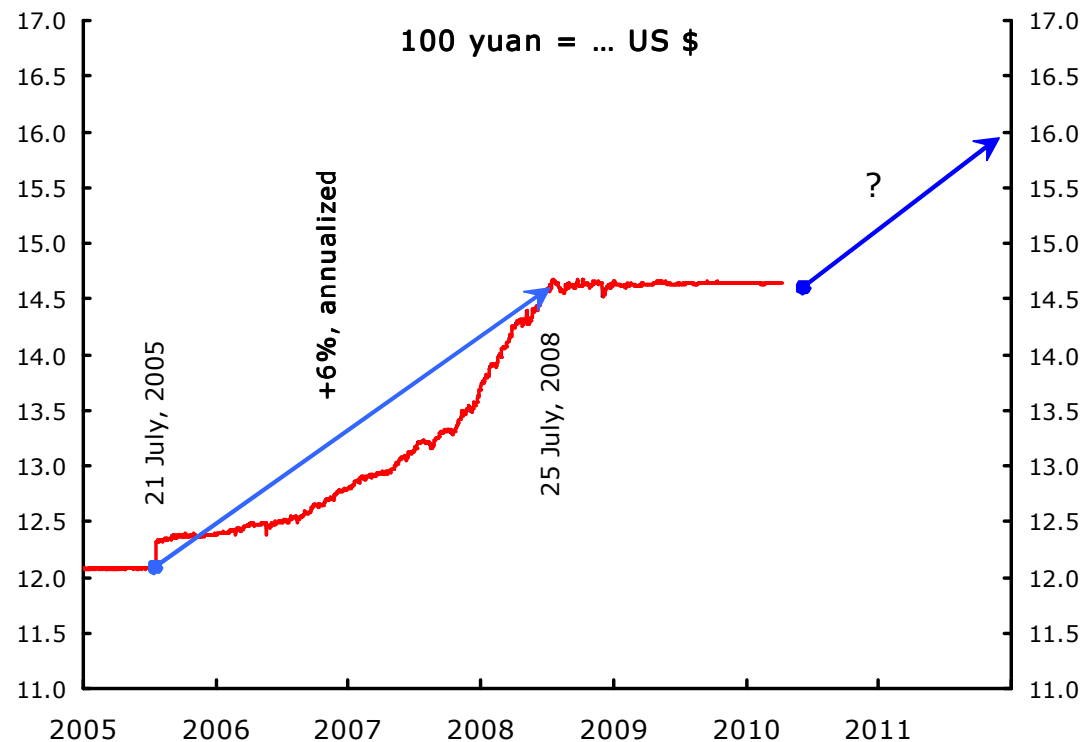


Source: Federal Reserve Board, NIPA, AXA-IM Research, latest data: 4Q 2009

Unraveling **China**America

What's New?: Yuan appreciation

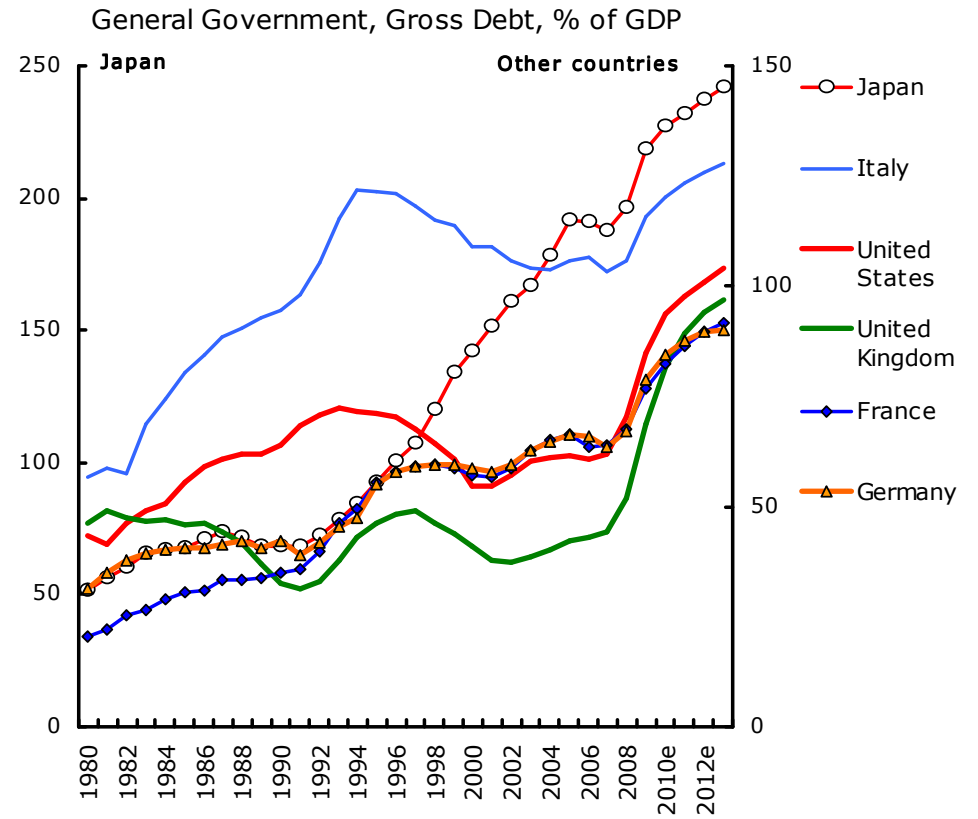
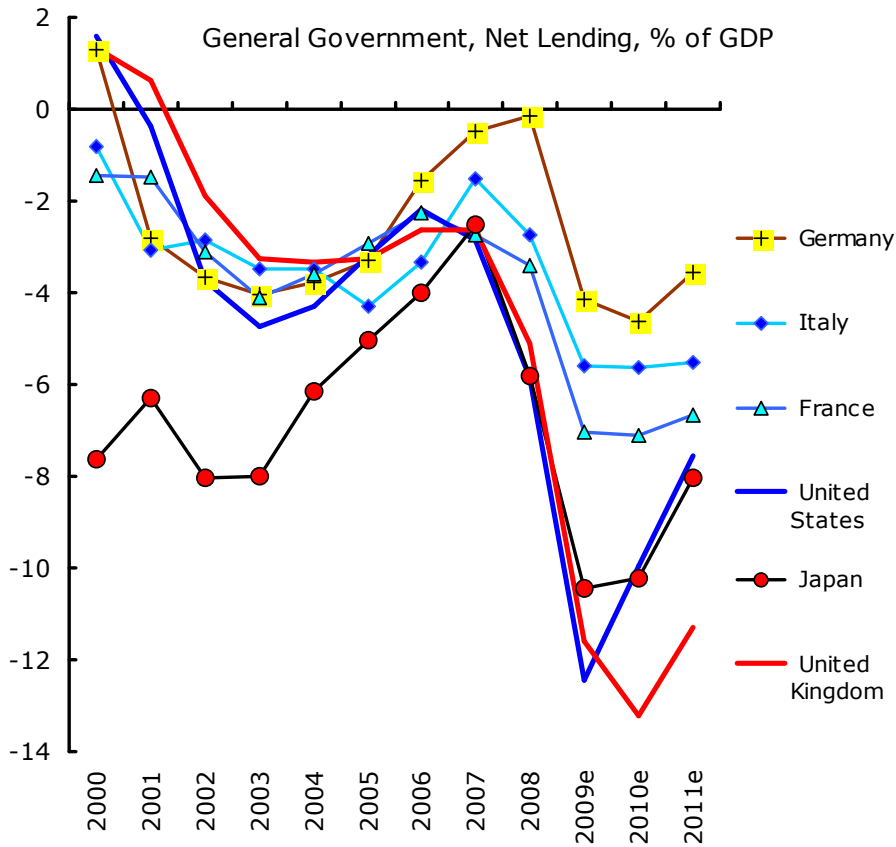
- China will revert soon to its pre-crisis exchange rate policy of gradual appreciation
- The main goal of this policy change will be to quiet down an again booming economy and fend off the risk of domestic inflation.
- China is likely to follow a pattern similar to 2005-2008: one-off, then gradual and accelerating appreciation.



Source: Federal Reserve Board, AXA-IM Research

All that debt!

The inexorable rise of government debts (IMF projections)



Source: IMF, AXA IM Research, latest data: 2008; e: IMF projections (WEO October 2009)

All that debt! The inflation temptation

The optimal exit path: productivity (and labor force growth)

This is how US and Europe deflated the legacy debt burden post WWII (US : innovation; Europe/Japan: catch-up)

1. Obama's administration highly focused on innovation
2. Innovation: high return in developed economies, low return in developing economies
3. Productivity and moderate inflation: best compromise

Simplistic arithmetic but food for thought:

7.0% nominal GDP growth

= 3.3% (inflation) + 3.6% (growth) [actual US mix post WWII]

= 4.0% (inflation) + 2.9% (growth) [possible post Great Recession path]

In both cases, initial debt burden halved in 10 years

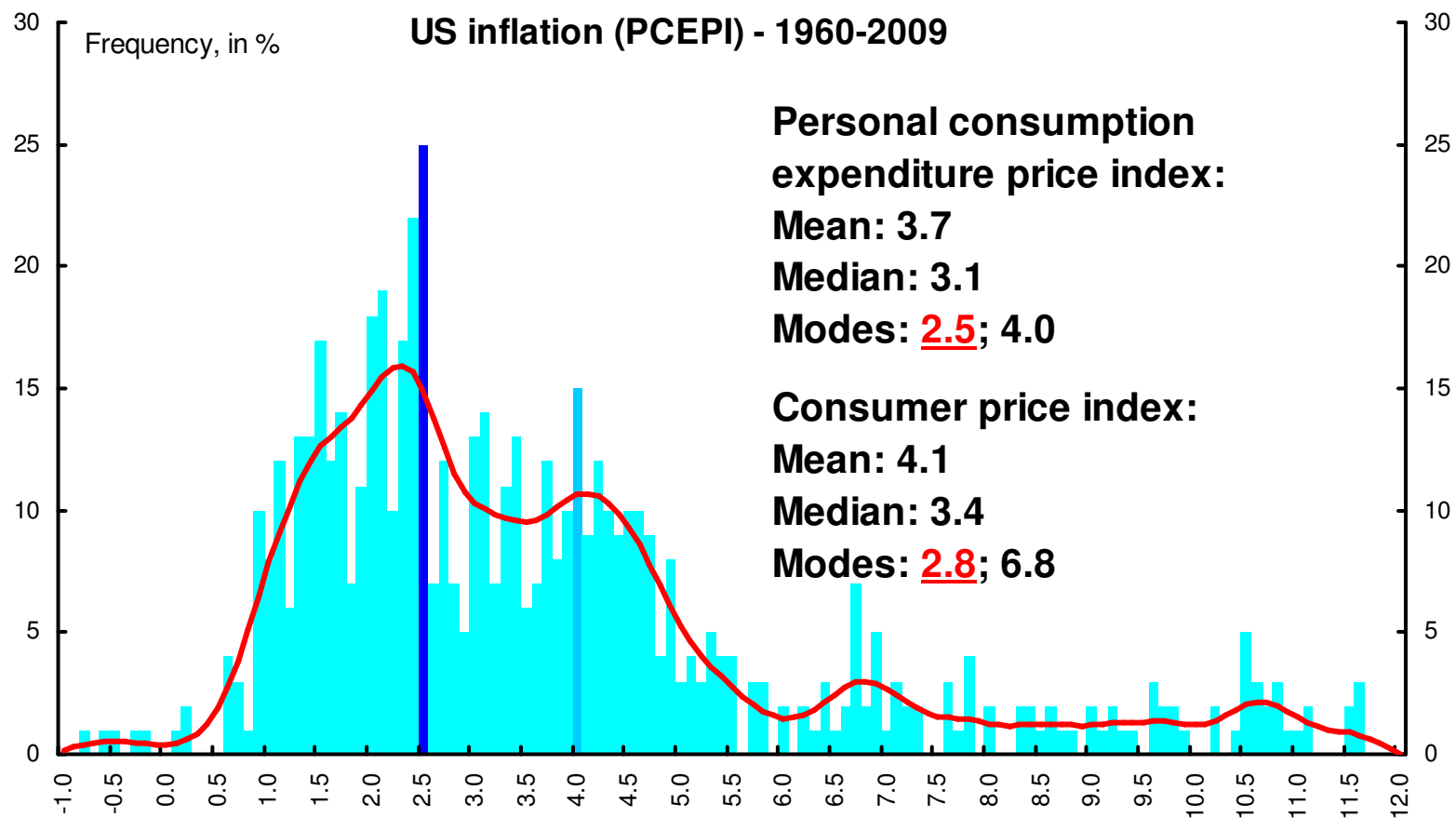
Could 1970s stagflation come back?

- Over 1971-1982, US CPI inflation averaged 8% and high inflation turned out to be unemployment-proof. The same happened in Europe, with two notable exceptions: Germany and Switzerland.
- With the benefit of hindsight, three main factors explained stagflation:
 - #1. Vietnam war and end of 'dollar standard' (15 August 1971). Enters 'fiat money', good bye gold.
 - #2. Misguided monetary policies (stripping CPI from 'transitory components', illusion of jobs/inflation trade-off)
 - #3. Real wage rigidities (indexation to prices, c.o.l.a. and other *scala mobile*, please note: no German word for indexation)
- Factors #2 and #3 have all but vanished. Hopefully, Fed will be less focused on 'core inflation' (reminiscence of Arthur Burns' stripping habit).
- Factor #1 remains: Iraq, Afghanistan vs. Vietnam. Fiat money is here to stay.

My personal view: stagflation is a red herring

End game: Deflation or inflation

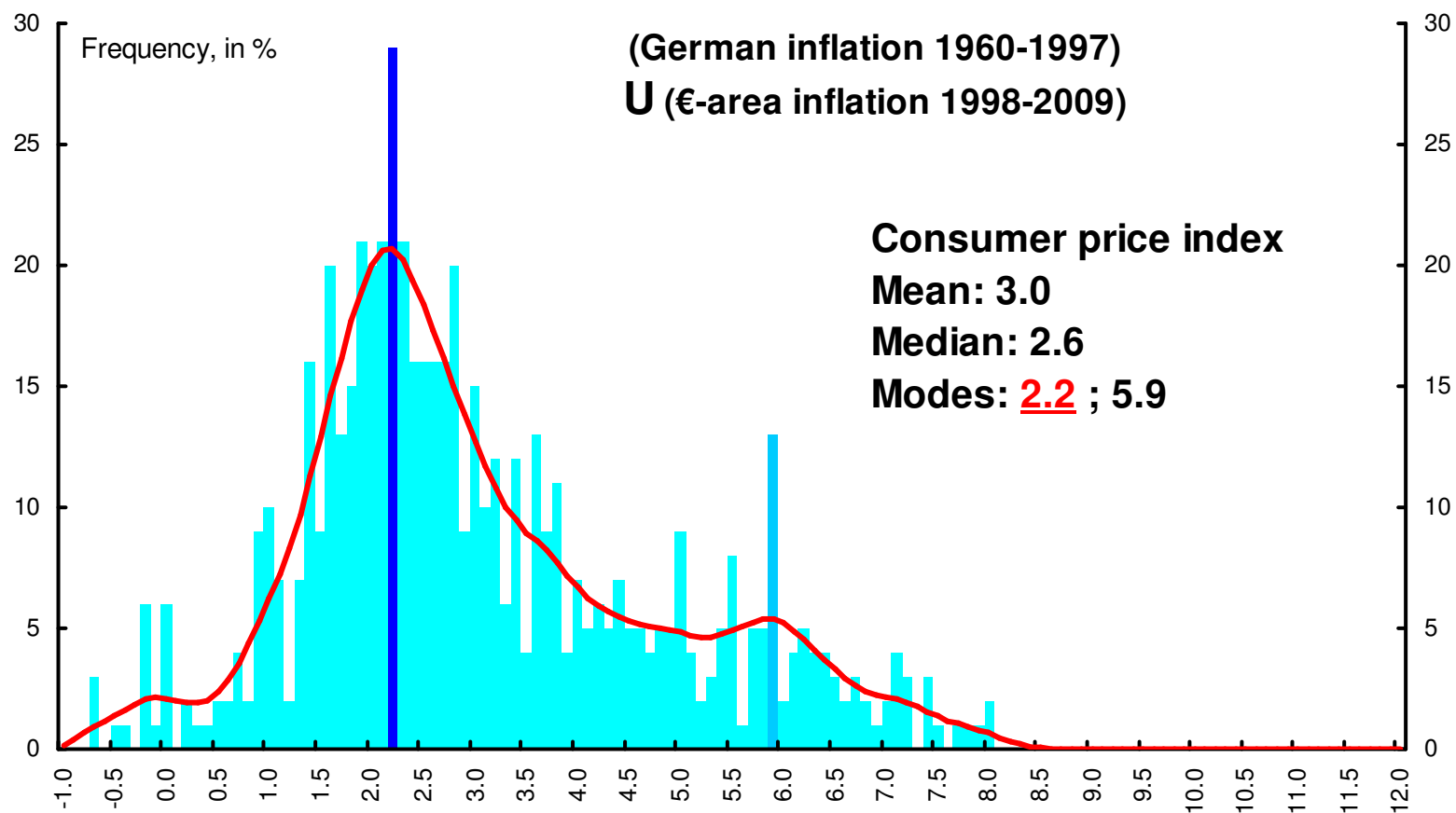
Long term, Fed may tolerate mild inflation



Source: US Department of Commerce, Federal Reserve,
AXA IM Research, latest data December 2009

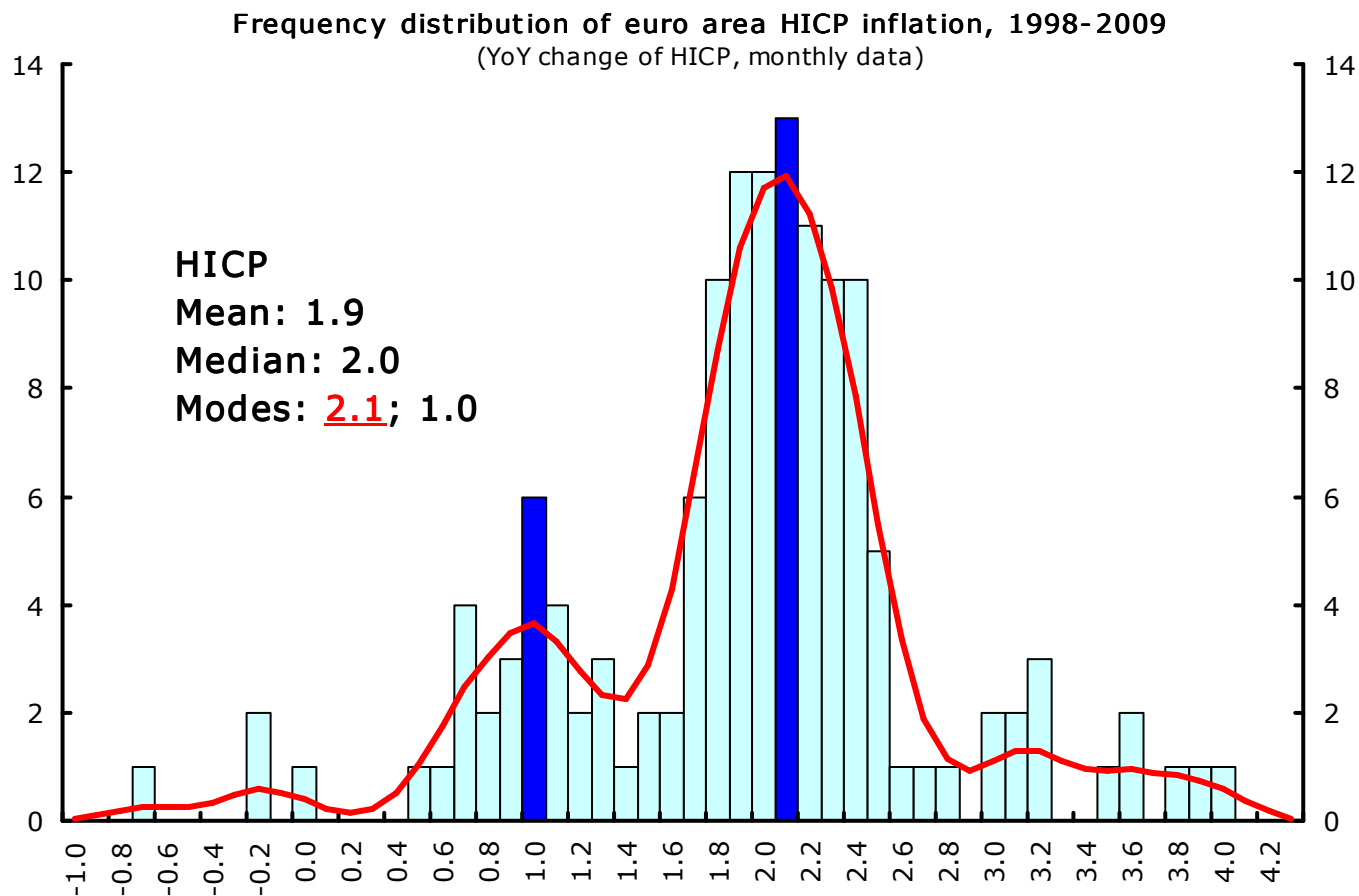
End game: Deflation or inflation

Buba- ECB won't tolerate inflation



Source: Destatis - Eurostat, AXA IM Research, latest data December 2009

End game: Deflation or inflation? ECB not really scared by deflation

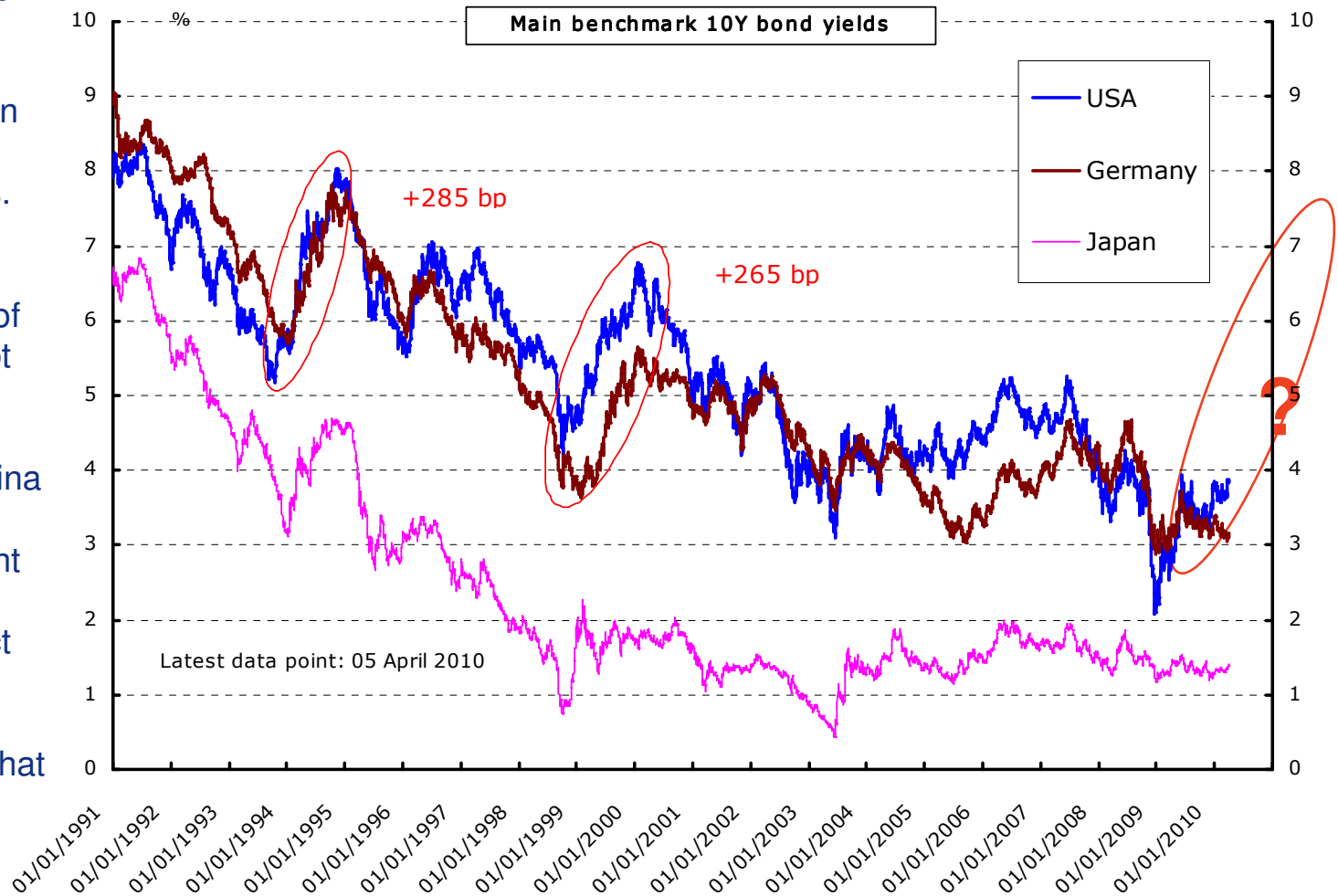


Source: Eurostat, AXA IM Research, latest data December 2009

Inflation or bond market crash or both?

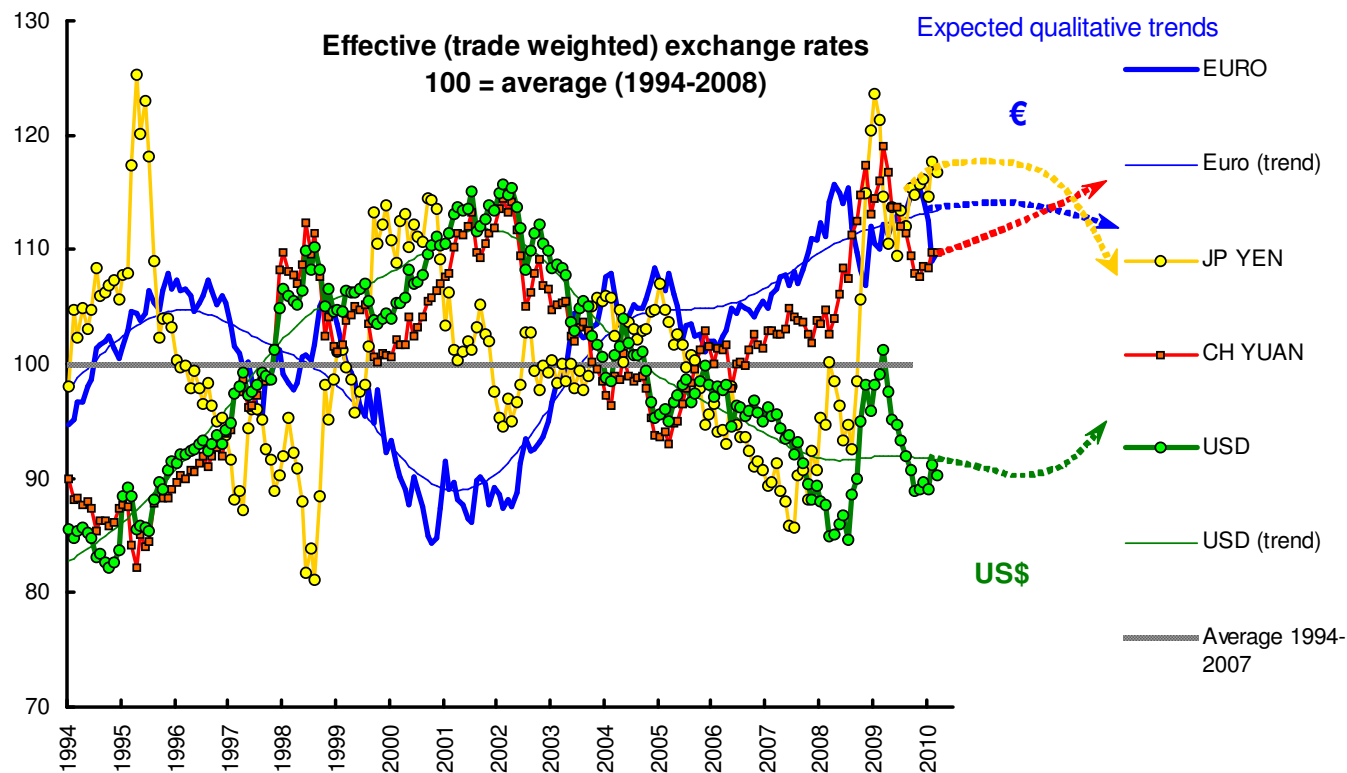
Could the bond markets cause a double dip?

- Fed: not in a hurry to tighten, but dissents raise their voice.
- ECB: divergences on 'EMF' could hide monetary divergences.
- The perfect storm:
 1. Further deepening of Greek / sovereign debt crisis.
 2. Unexpected rise in commodity prices (China overheating)
 These two independent shocks would then compound their impact on bond yields, with a risk of feedback loop.
 3. Central banks see that they are behind the curve and start tightening.



US\$ was a safe haven during the storm; post-crisis, it has to weaken

- During the credit crunch, the US\$ benefited from its global reserve currency status. As the recovery unfolds, weak fundamentals resurface. A steady decline is more likely than a free fall, unless reckless policies from Fed/Treasury undermine US assets credibility.
- Current € weakness is caused by doubts about the sustainability of the €-area. These doubts will vanish before the US has restored its fundamentals.



Source: Datastream, JP Morgan, ECB, AXA IM Research, latest data: February 2010

When exit strategies unfold

JPY: should decline (only left in deflation → carry trades)

USD: should depreciate as fundamentals trump safe haven status

EUR: should appreciate as mirror image of USD.
Significant downside risk: €-area credibility

CNY: strongest potential to appreciate ... when floated

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