



The Global Inflation Markets in Flux: Peak Oil, Financial Collapse, QE, Sovereign Debt Crises and the Inflation vs Deflation Debate

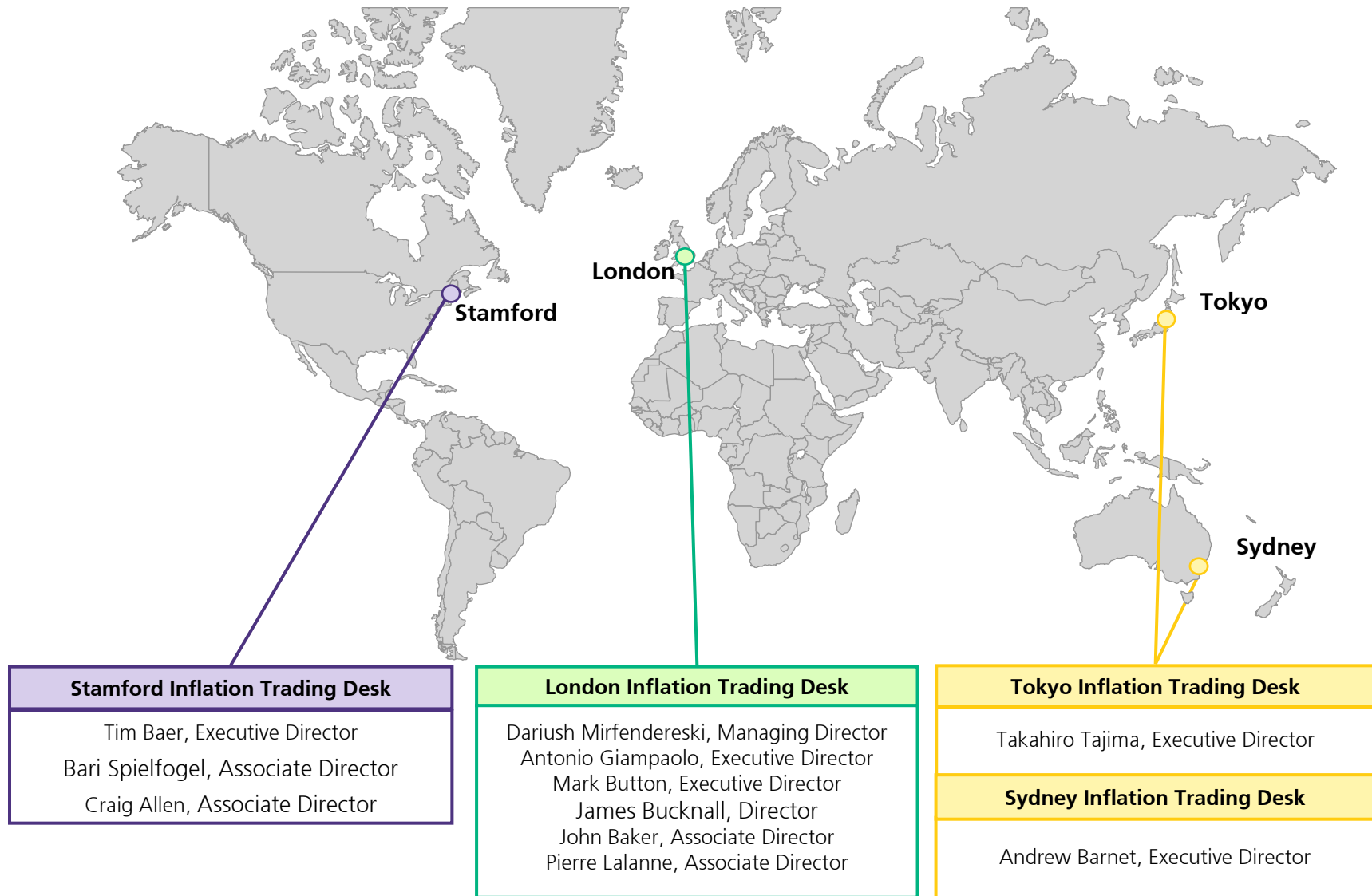
Dariush Mirfendereski
Managing Director, Global Head of Inflation Trading

September 30, 2010

Opening

UBS's inflation trading team and inflation-linked bond credentials

UBS Global Inflation Trading Desk



UBS's sovereign inflation-linked mandates: 2005 to date



United Kingdom

£1.25bn 1.25% IL due 2055
September 2005



United Kingdom

£5bn 0.50% IL due 2050
September 2009



United Kingdom

£3.5bn 0.625% IL due 2040
January 2010



United Kingdom

£5bn 0.50% IL due 2050
May 2010



Liberté • Égalité • Fraternité
RÉPUBLIQUE FRANÇAISE

Republic of France

€4bn 1.8% IL due 2040
March 2007



Australian Gov't (AOFM)

AUD 4bn 3% IL due 2025
September 2009



Australian Gov't (AOFM)

AUD 1.25bn 2.5% IL due 2030
September 2010



Republic of Italy

€5bn 0.95% IL due 2010
January 2005



Republic of Italy

€4bn 2.1% IL due 2017
June 2006



Republic of Italy

€4bn 2.35% IL due 2019
May 2008



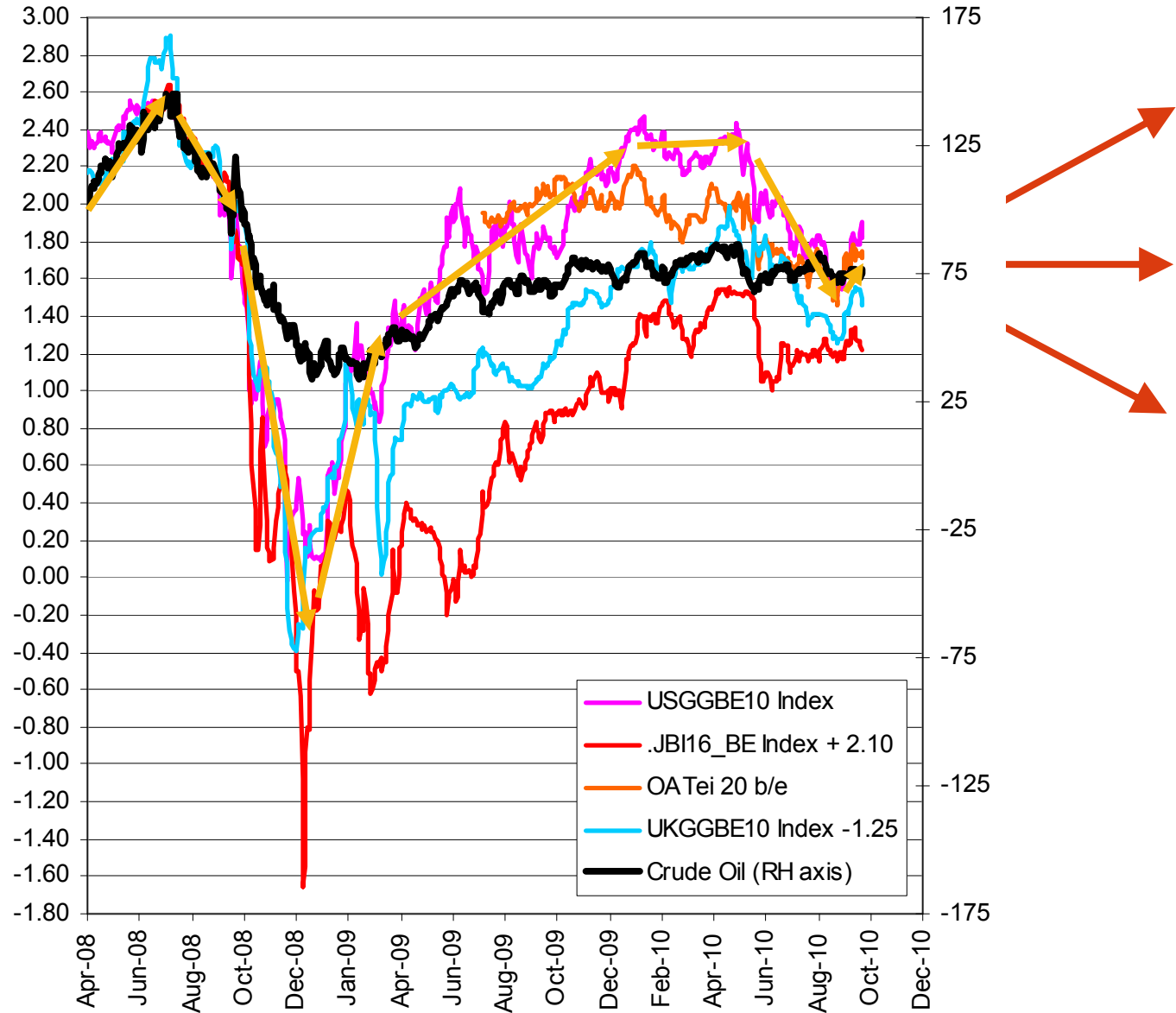
Republic of Italy

€3bn 2.1% IL due 2021
April 2010

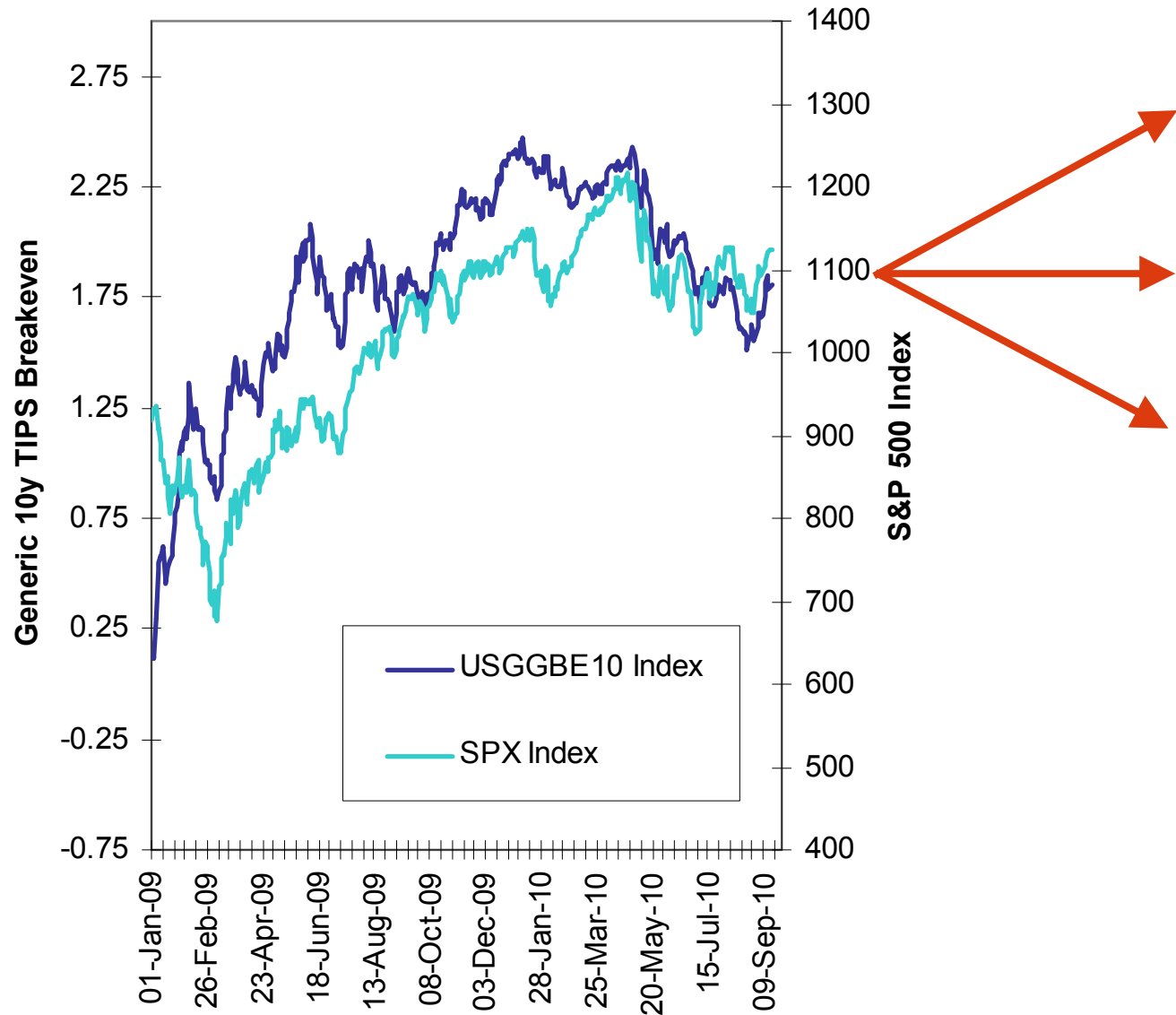
SECTION 1

The global inflation markets in the last 30 months

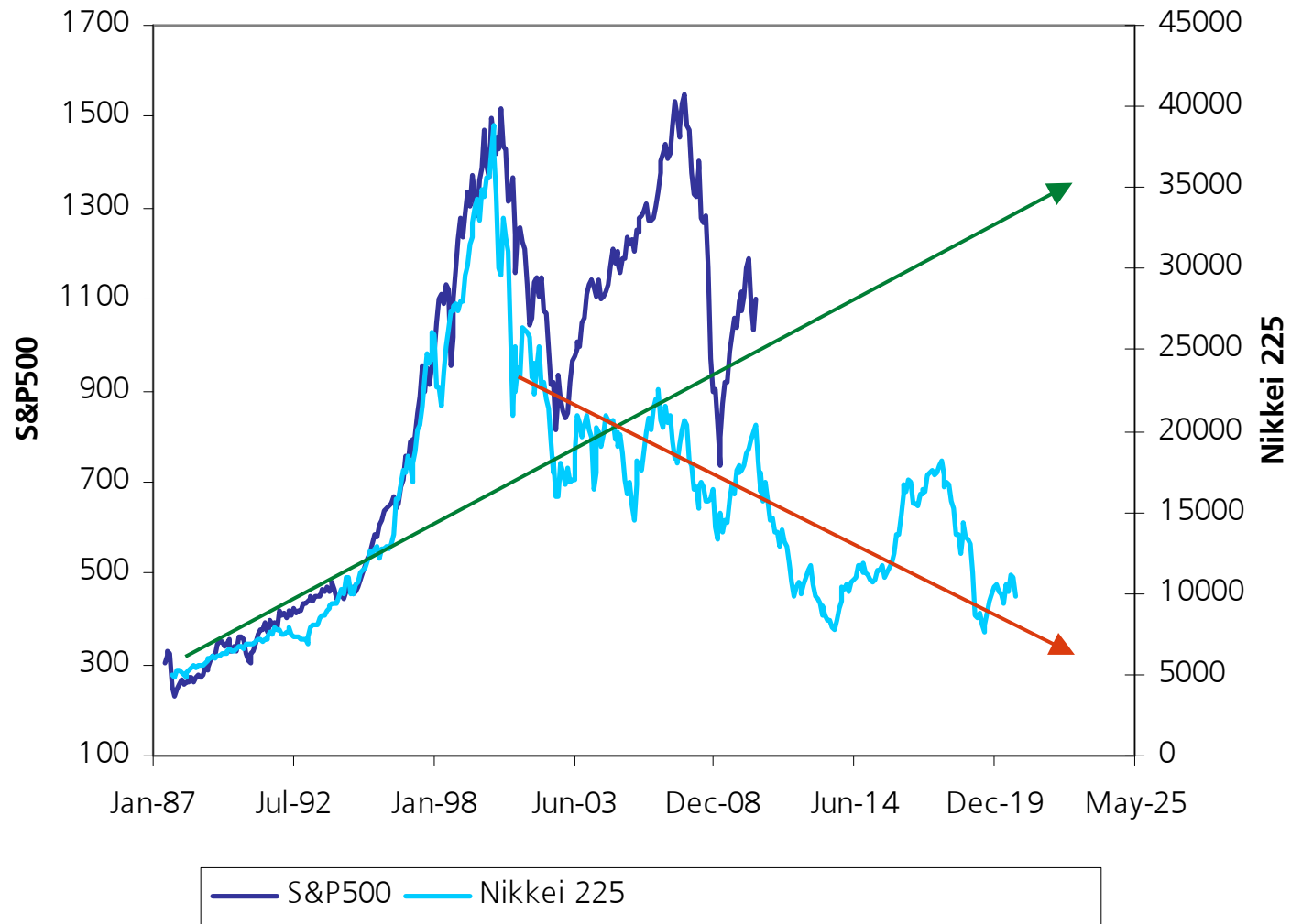
Summary ... and what next?



Strong correlation between S&P500 and 10y TIPS b/e



Are comparisons with Japan's lost decade a big stretch?



Are comparisons with Japan's lost decade a big stretch?



Turning Japanese ...

**The
Economist**

Sep 23rd 2010

... danger of complacency. Japanese stagnation couldn't happen here, Western commentators used to argue, because the Japanese were too slow to act, propped up their problem banks, tightened fiscal policy too early and all the rest. Yet history is repeating itself.

Trade in inflation floors

THE WALL STREET JOURNAL.

ECONOMY | AUGUST 27, 2010

Insurer makes bold bet on deflation

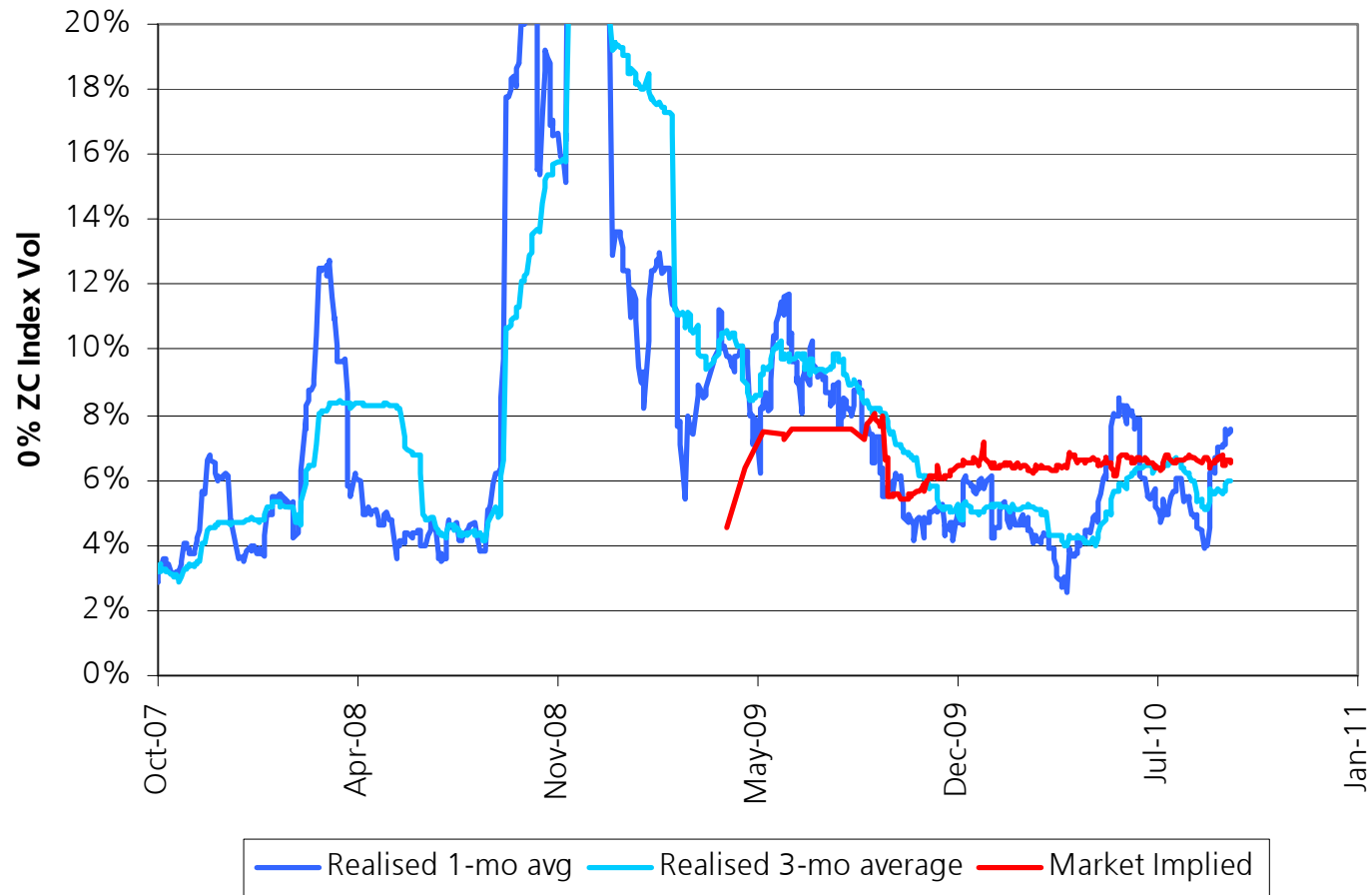
A wager by Fairfax Financial risks \$174 million. If deflation arrives, it could be worth billions.

B Pimco Makes \$8.1 Billion Bet Against 'Lost Decade' of Deflation

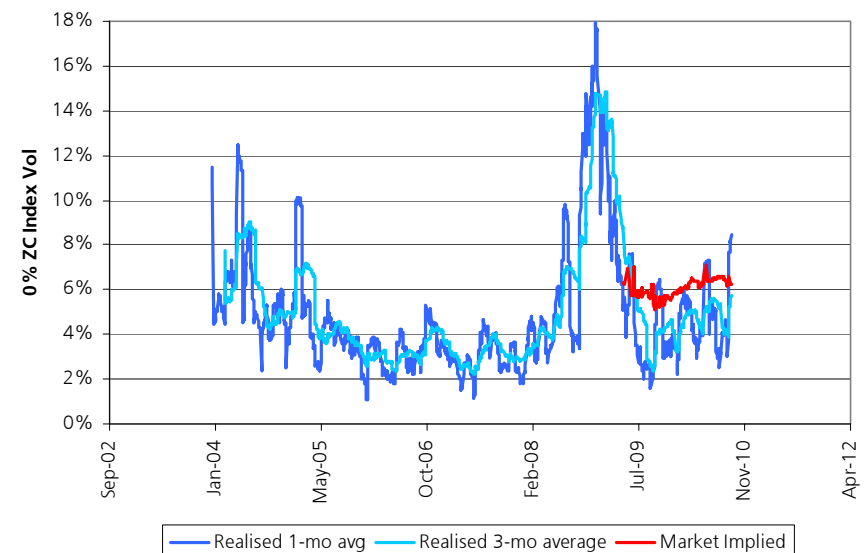
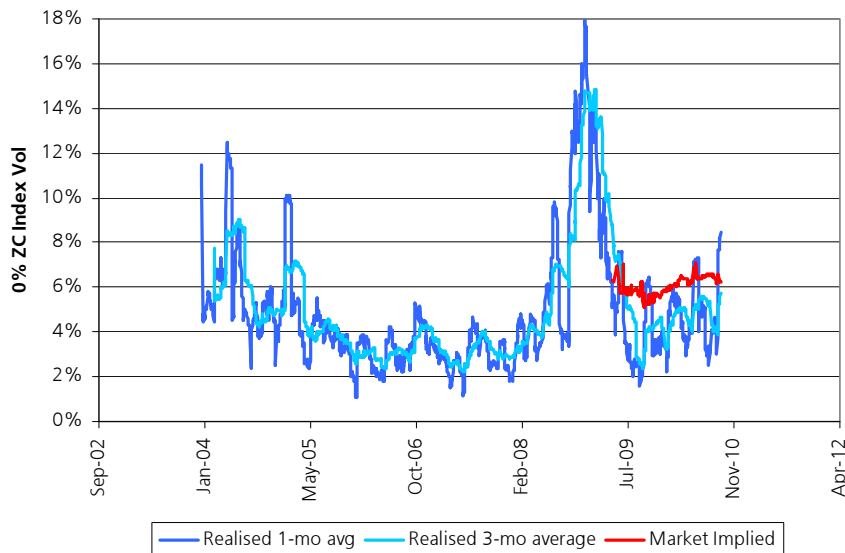
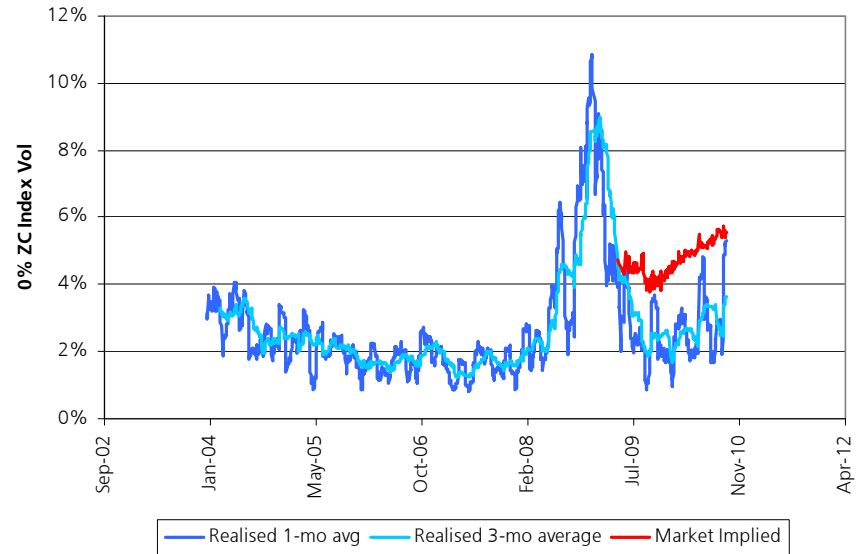
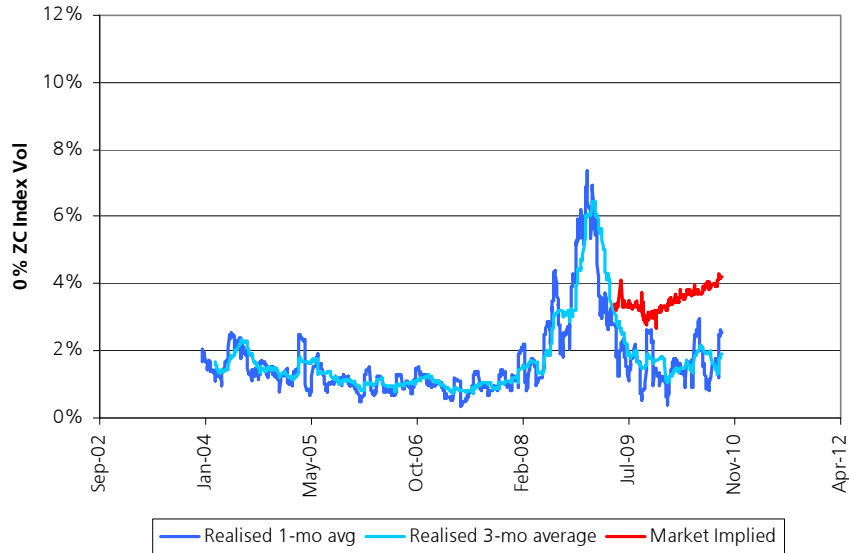
By Miles Weiss

Sept. 15 (Bloomberg) -- Bill Gross's Pacific Investment Management Co. made an \$8.1 billion wager that the U.S. won't suffer a decade of deflation like the one that crippled Japan starting in the 1990s.

10y US CPI 0% zero coupon index volatility



5, 10, 20, & 30y Euro HICPx 0% zero coupon index volatility



SECTION 2

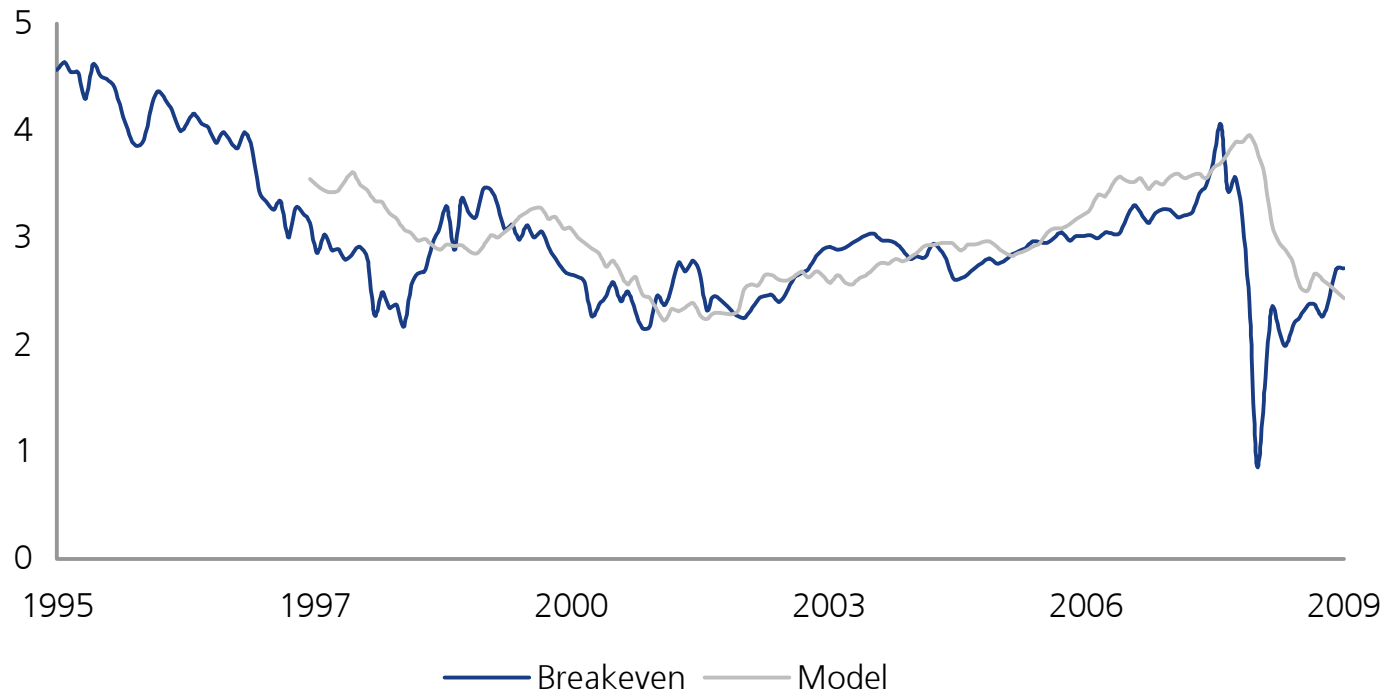
7 things you thought you knew about inflation-indexed securities

SECTION 2.1

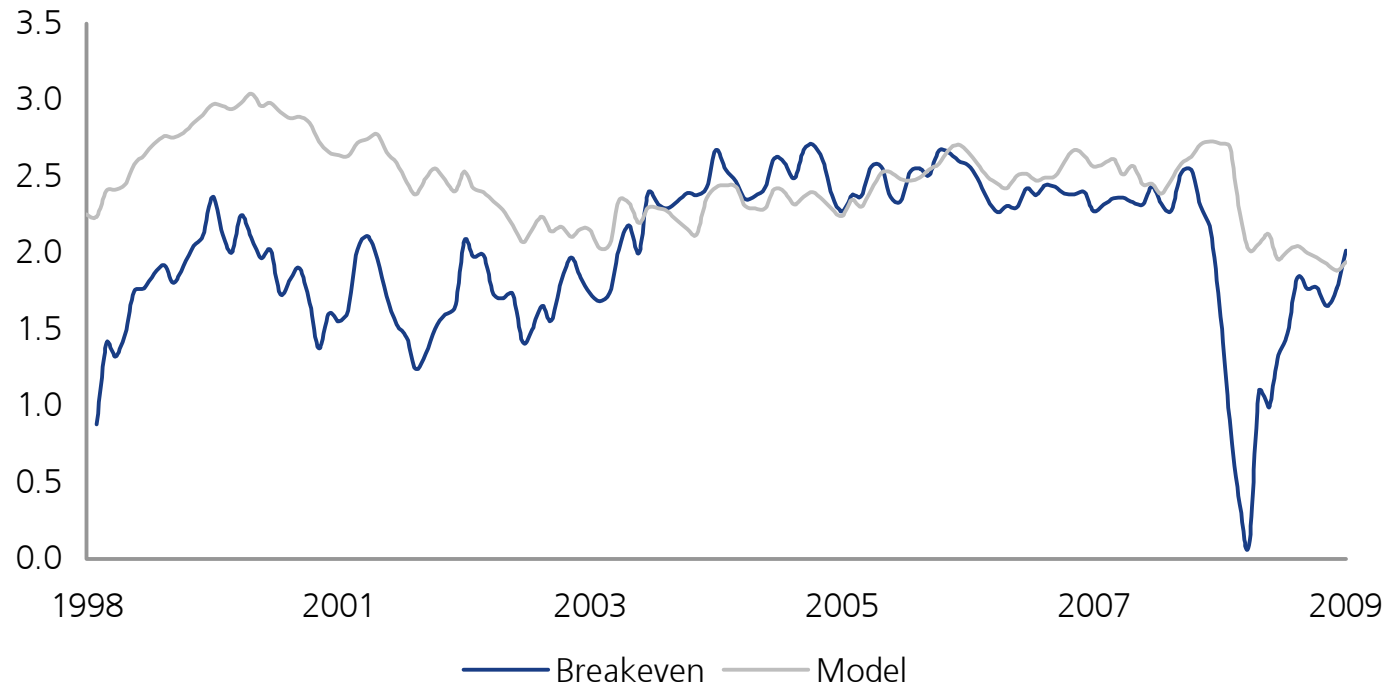
7 things you thought you knew about inflation-indexed securities

Inflation breakevens are forward looking?

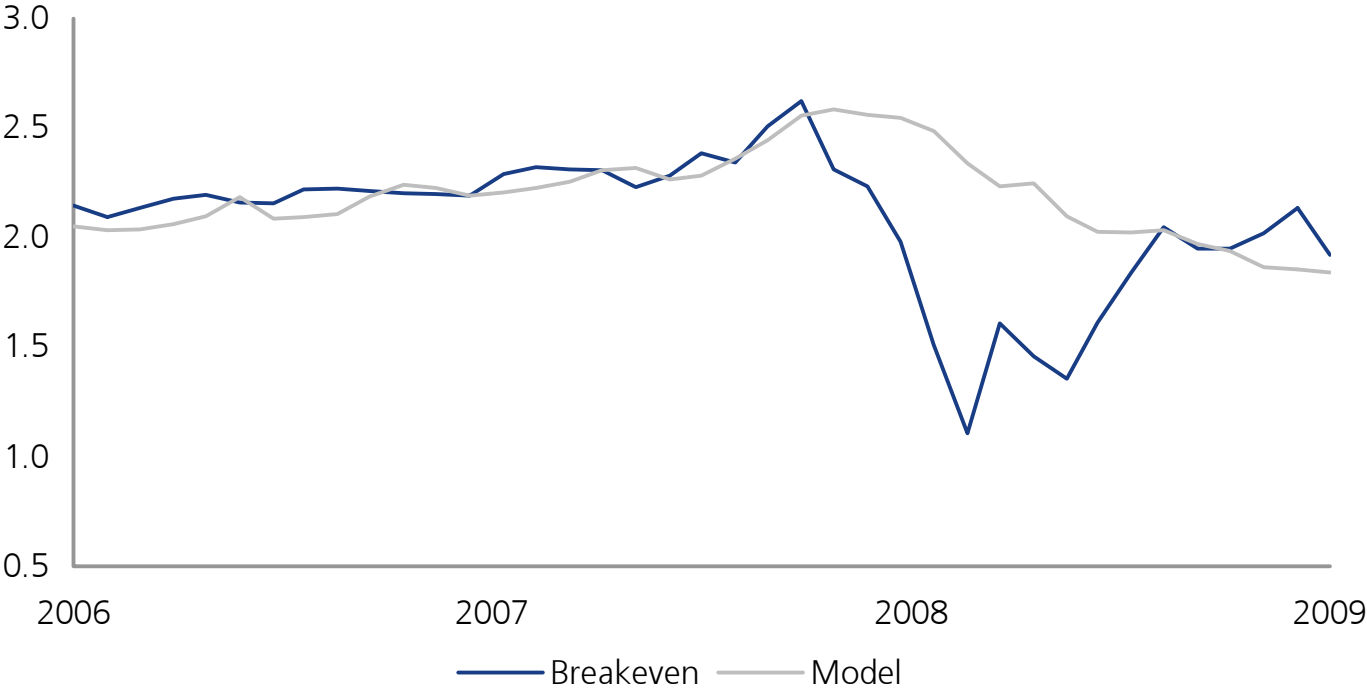
UK 10-year breakevens and predictive model



US 10-year Breakevens and predictive model



Euro (BTPei) 10-year Breakevens and predictive model

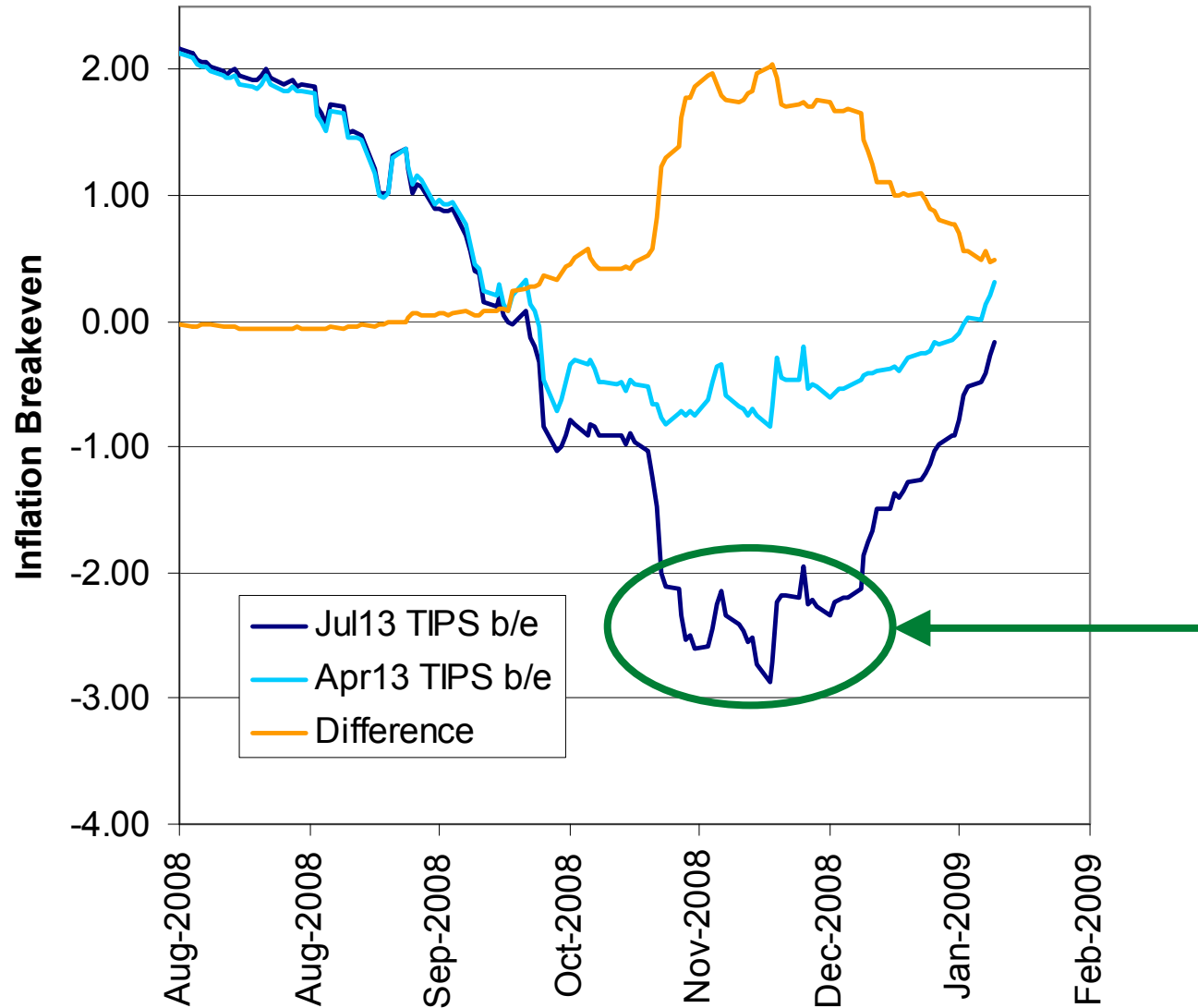


SECTION 2.2

7 things you thought you knew about inflation-indexed securities

Inflation breakevens provide good information to policy makers?

US TIPS Breakevens: comparing Apr-13 & Jul-13 TIPS



Source: Bloomberg, UBS

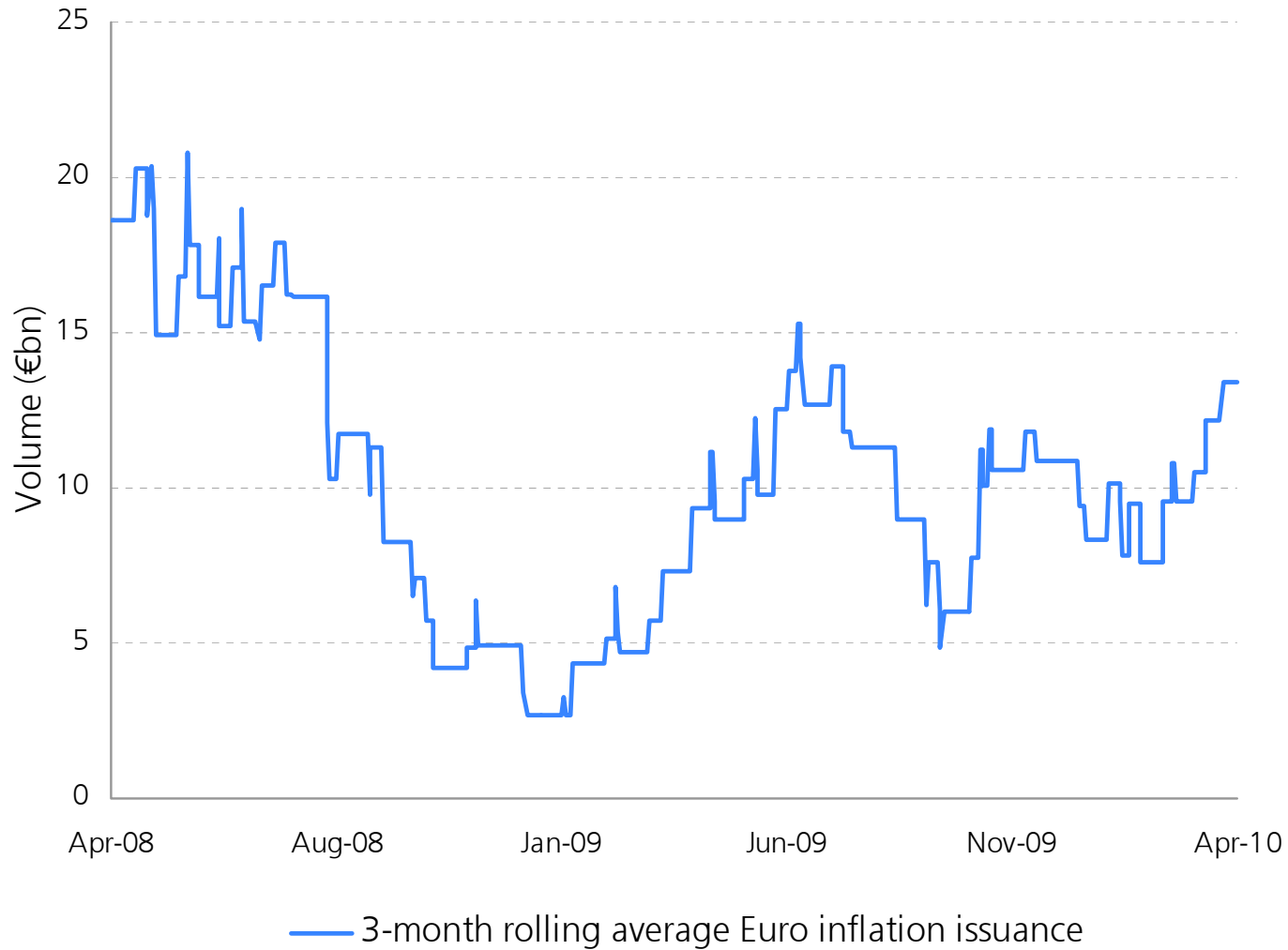
SECTION 2.3

7 things you thought you knew about inflation-indexed securities

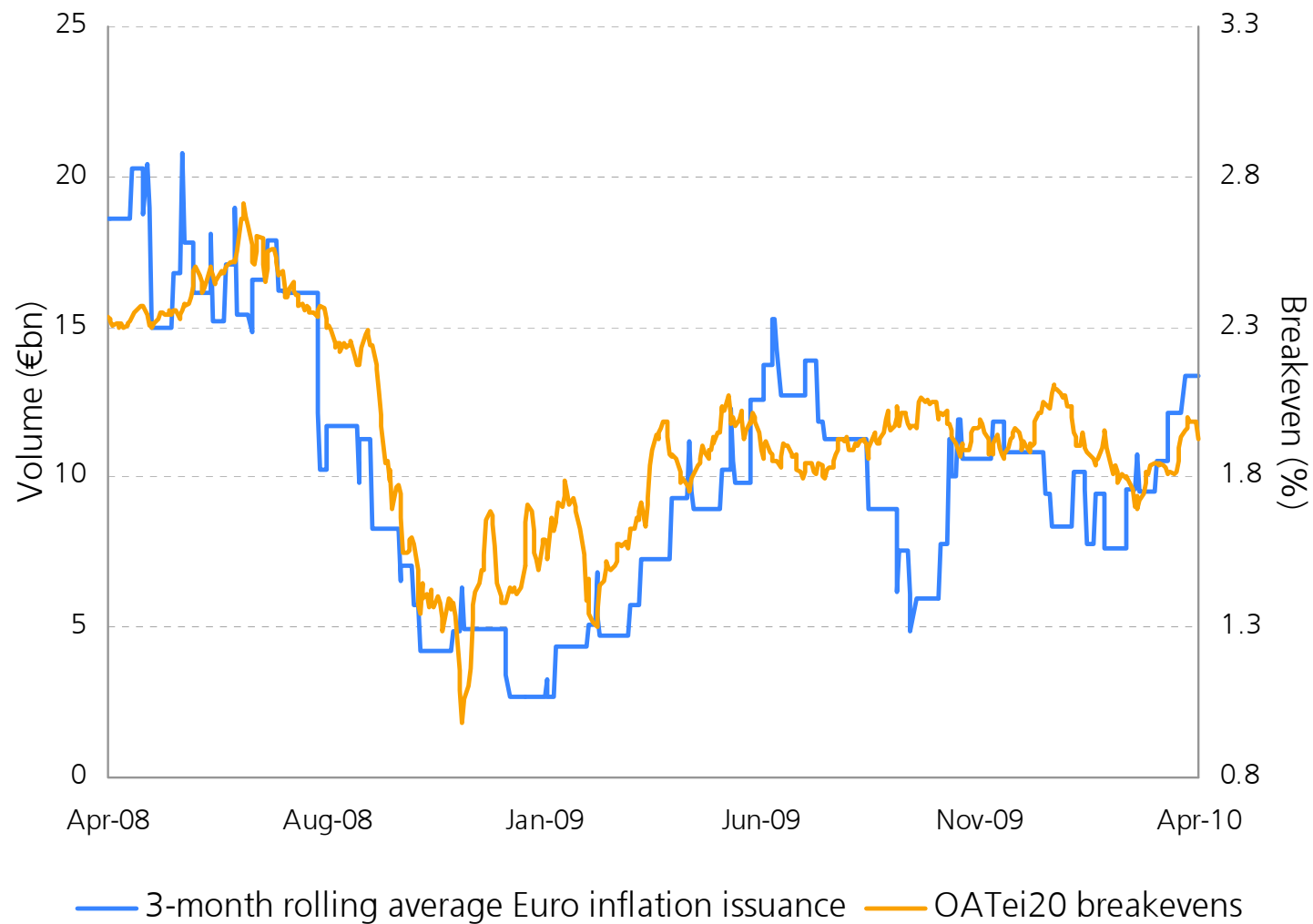
Increased issuance leads to lower breakevens ?

Decreased issuance leads to higher breakevens ?

3-month rolling average Eurozone inflation-indexed issuance



Eurozone inflation-indexed issuance & 10y OATei breakevens



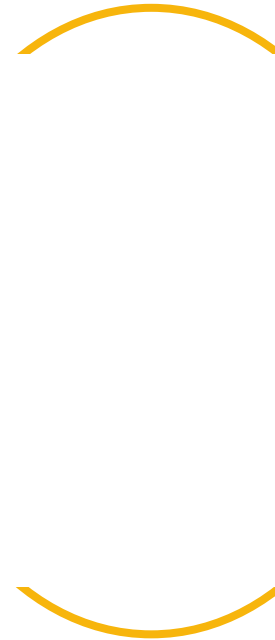
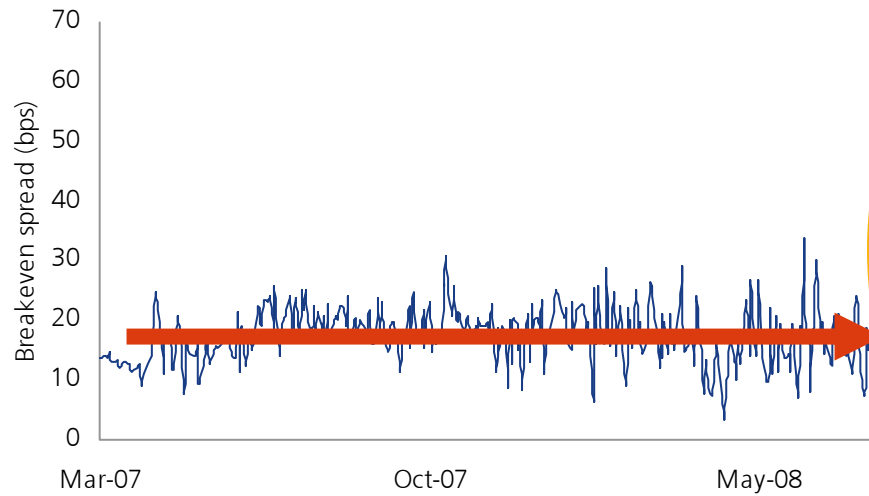
SECTION 2.4

7 things you thought you knew about inflation-indexed securities

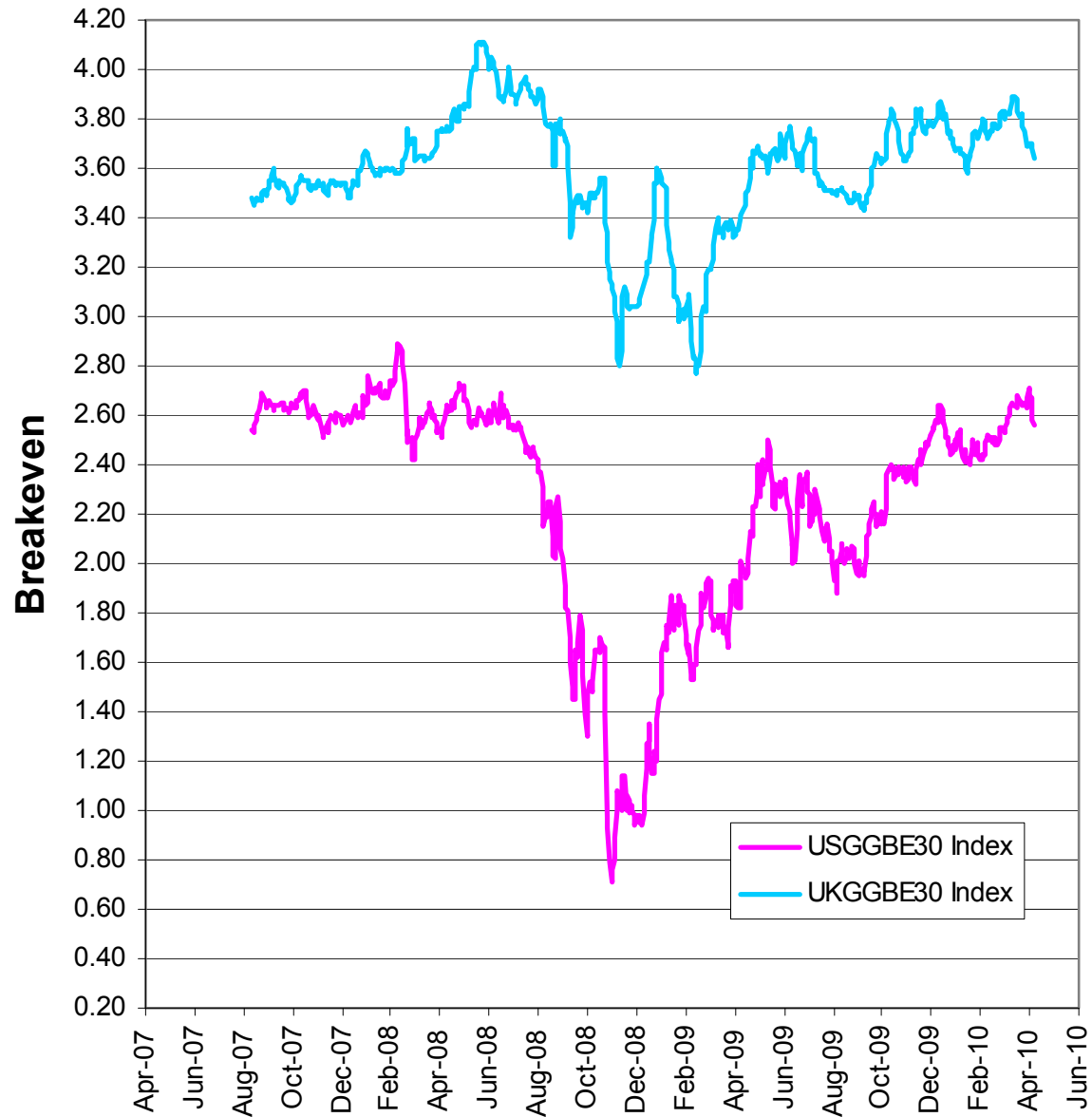
Inflation targetting central banks stop investors pushing long end breakevens too much higher than the inflation target?

Breakevens: Euro inflation market 10y vs 30y

French 10-year – 30-year breakeven spread analysis



Breakevens: UK & US 30y breakevens

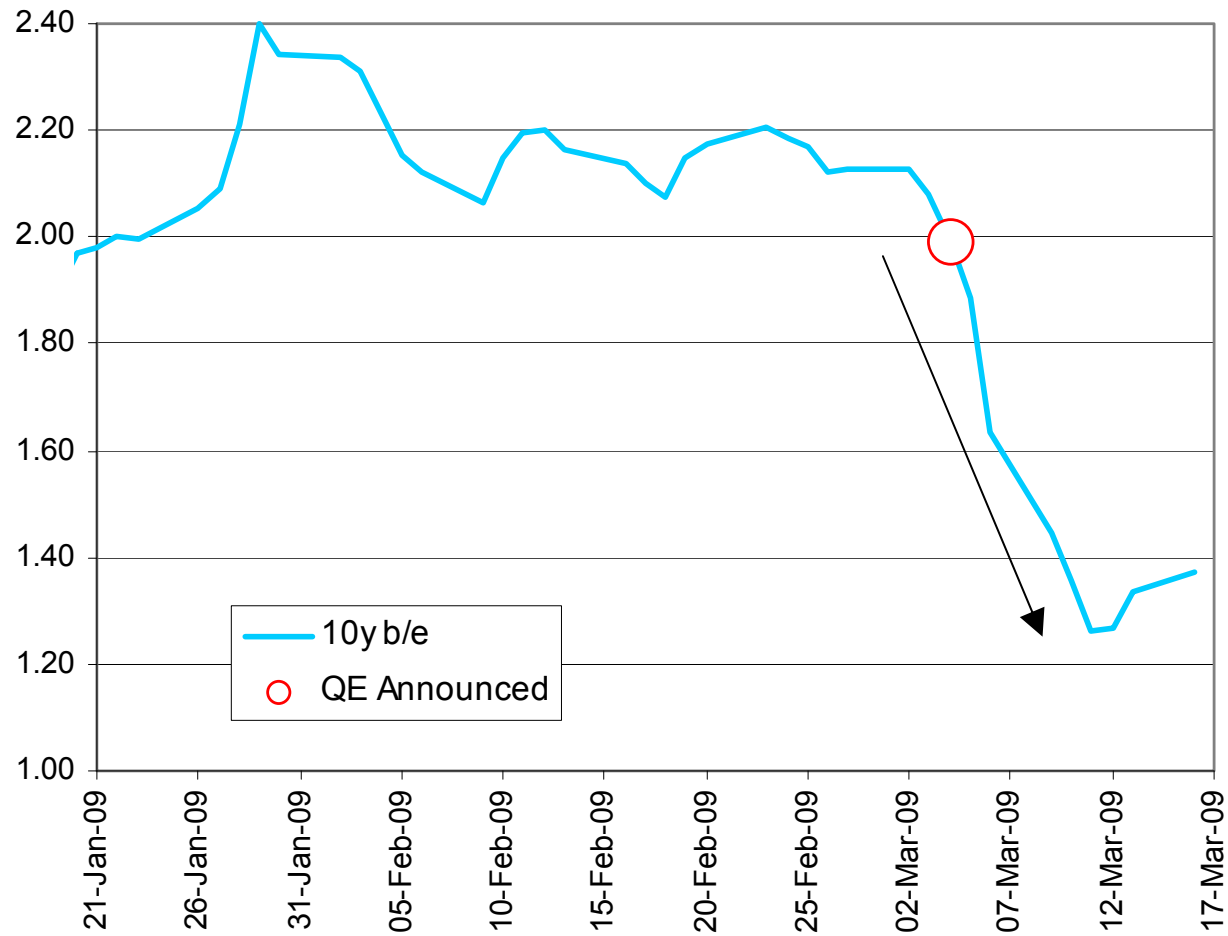


SECTION 2.5

7 things you thought you knew about inflation-indexed securities

QE results in higher inflation expectations?

UK 10-year breakevens before and after 5 April, 2009



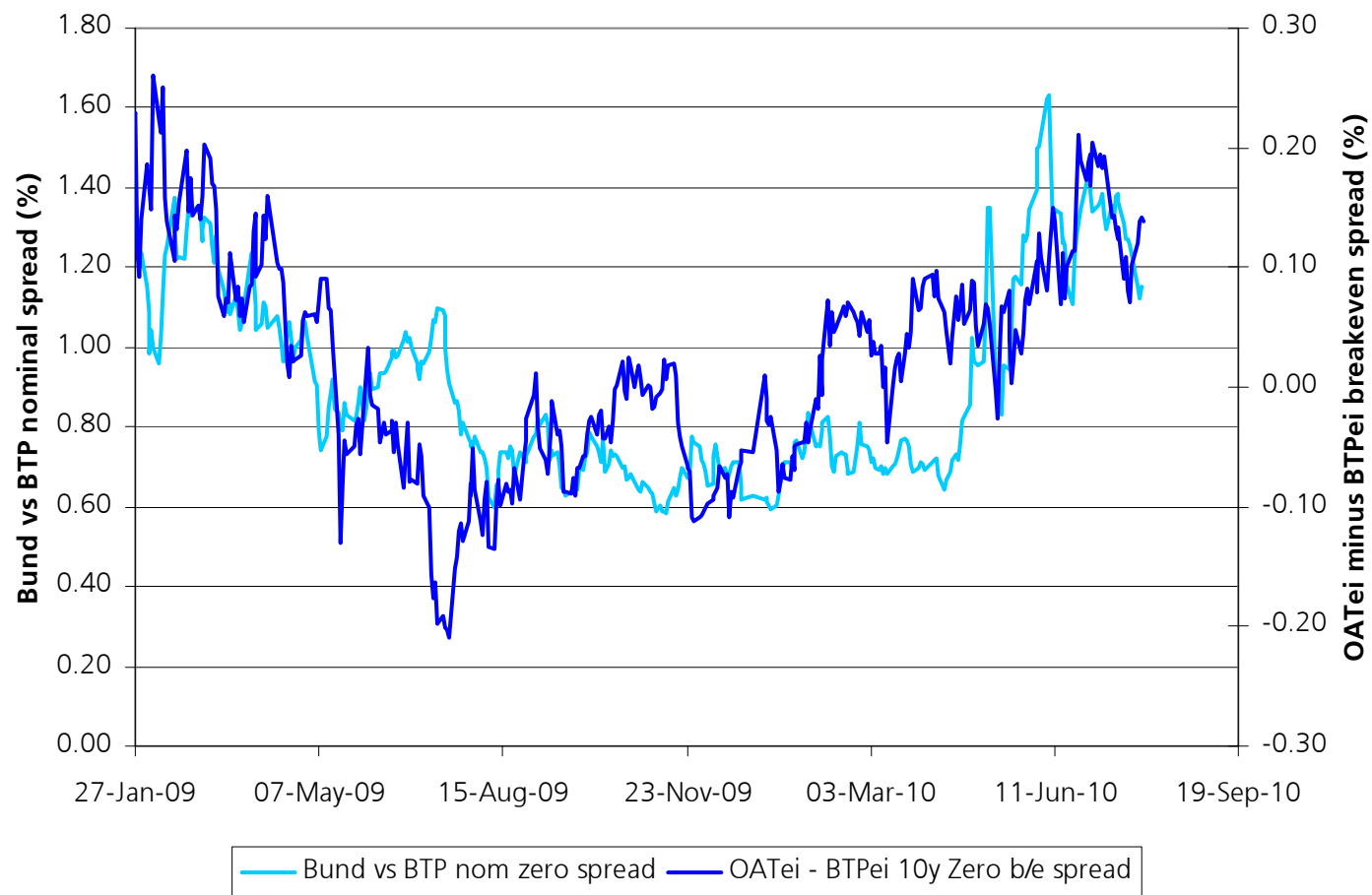
SECTION 2.6

7 things you thought you knew about inflation-indexed securities

Widening sovereign spreads will negatively impact breakevens?

Sovereign credit spreads: impact on inflation breakevens (10y)

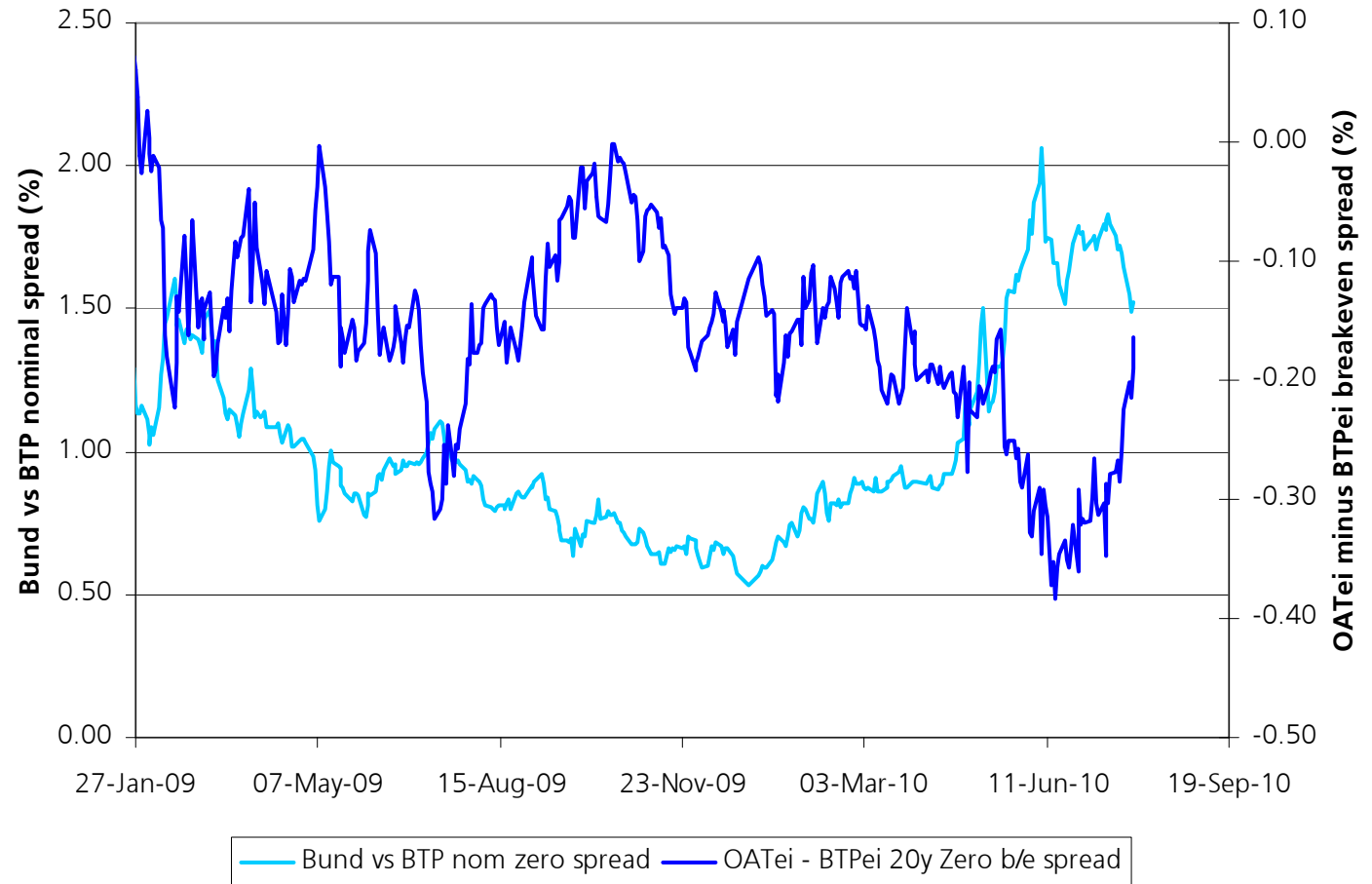
10y breakevens underperform as sovereign spreads widen



makes sense ... concerns about increased exposure

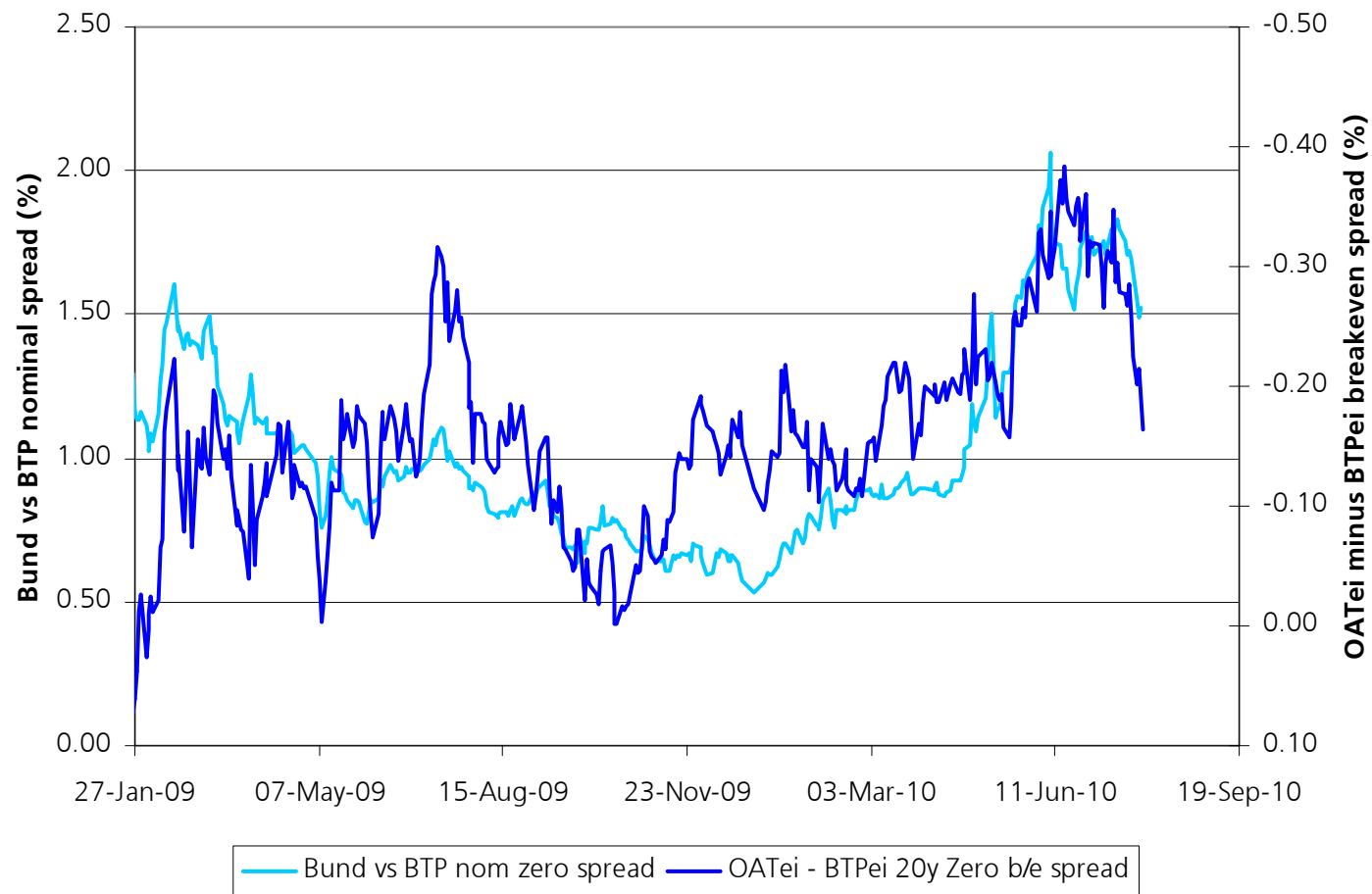
Sovereign credit spreads: impact on inflation breakevens (20y)

20y breakevens
outperform as sovereign
spreads widen



Seems counter-intuitive ... no concerns about exposure?

Sovereign credit spreads: impact on inflation breakevens (20y)



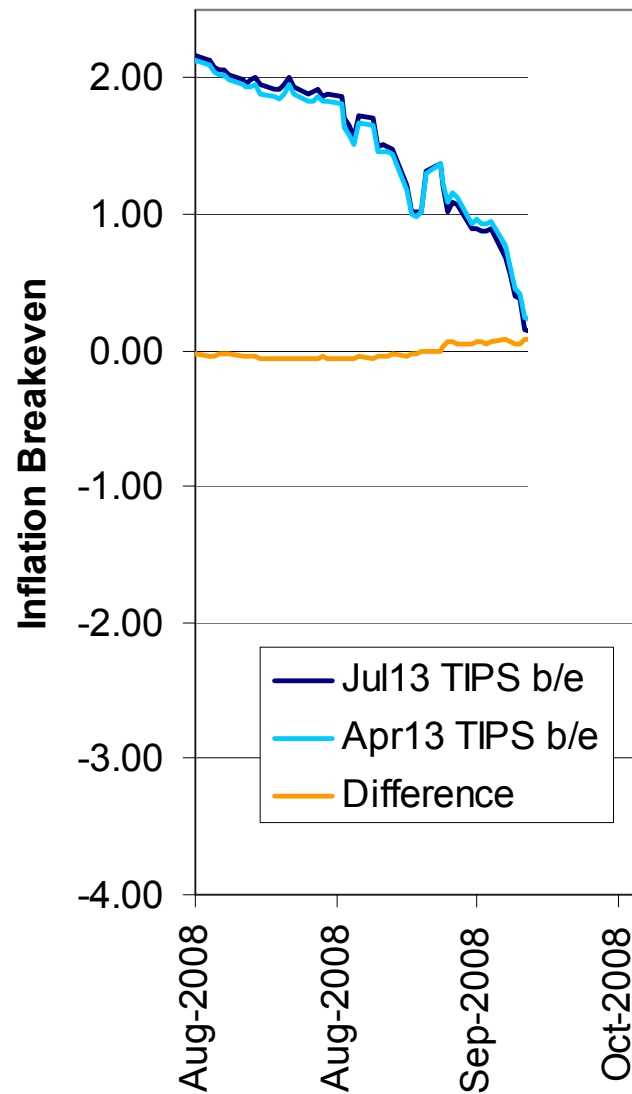
... but is this really how things should continue?

SECTION 2.7

7 things you thought you knew about inflation-indexed securities

The par floor can be ignored since it has negligible value?

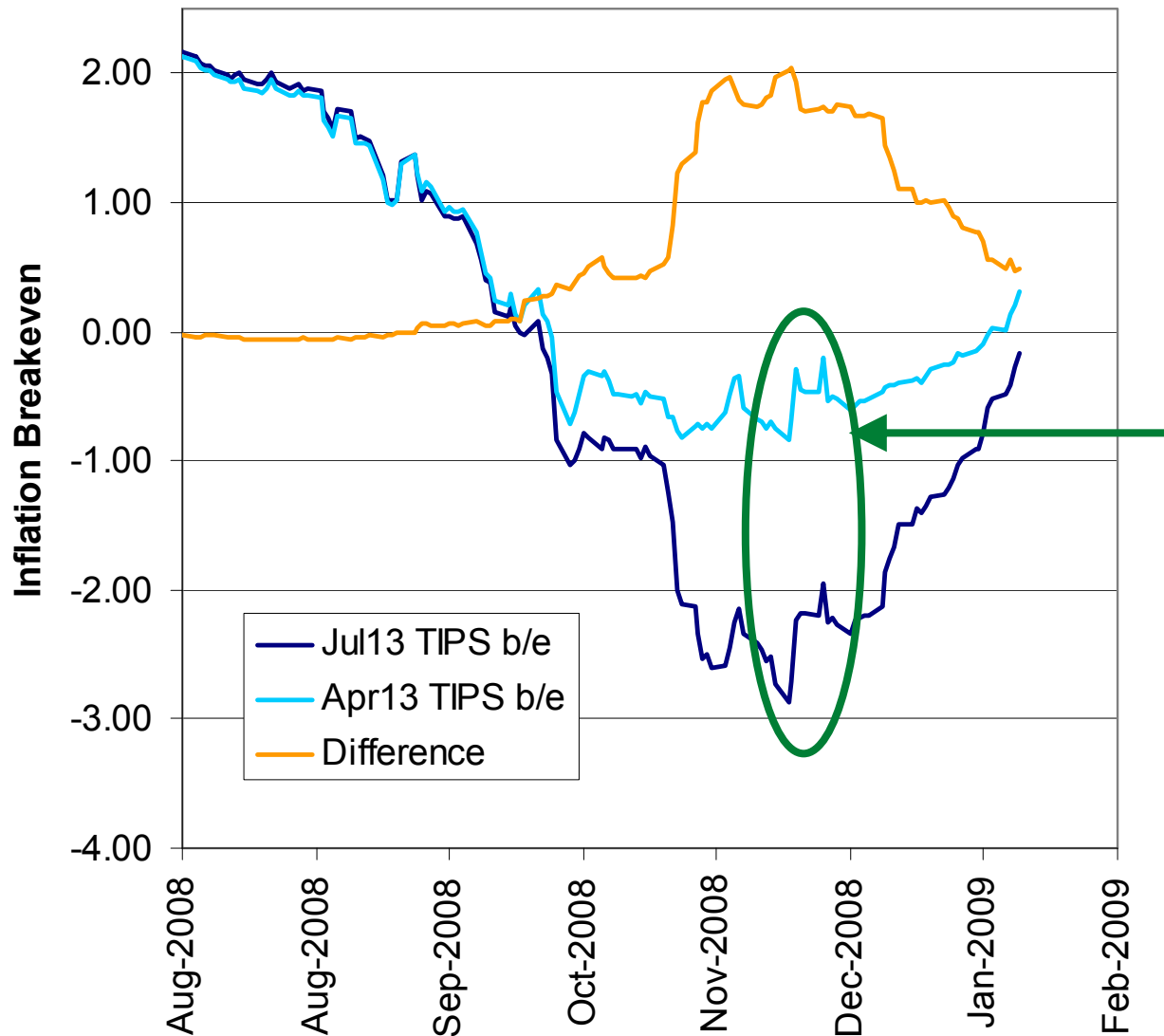
US TIPS Breakevens: comparing Apr-13 & Jul-13 TIPS



- ◆ The price differential between the Apr-13 TIPS par floor and the Jul-13 TIPS par floor was very small when breakevens were positive
- ◆ Therefore the breakevens for these bonds which had close maturities were very similar

Source: Bloomberg, UBS

US TIPS Breakevens: comparing Apr-13 & Jul-13 TIPS



Source: Bloomberg, UBS

- ◆ The price differential between the Apr-13 TIPS par floor and the Jul-13 TIPS par floor was very small when breakevens were positive
- ◆ Therefore the breakevens for these bonds which had close maturities were very similar
- ◆ With negative breakevens, the market priced the floors differently
- ◆ **Jul-13 TIPS effectively did not have a floor since they were issued 5 years prior (in 2003) and 5 years of positive inflation made the floor almost worthless (flooring inflation at approx. -2.5%)**
- ◆ Apr-13 TIPS were newly issued in 2008 and the par floor was effectively flooring inflation at 0%
- ◆ **We have a real world example of a market where 2 bonds traded in parallel, one effectively without a floor (Jul-13s) and one with a floor (Apr-13s), during a period with sharply negative breakevens, i.e. Q4 2008**

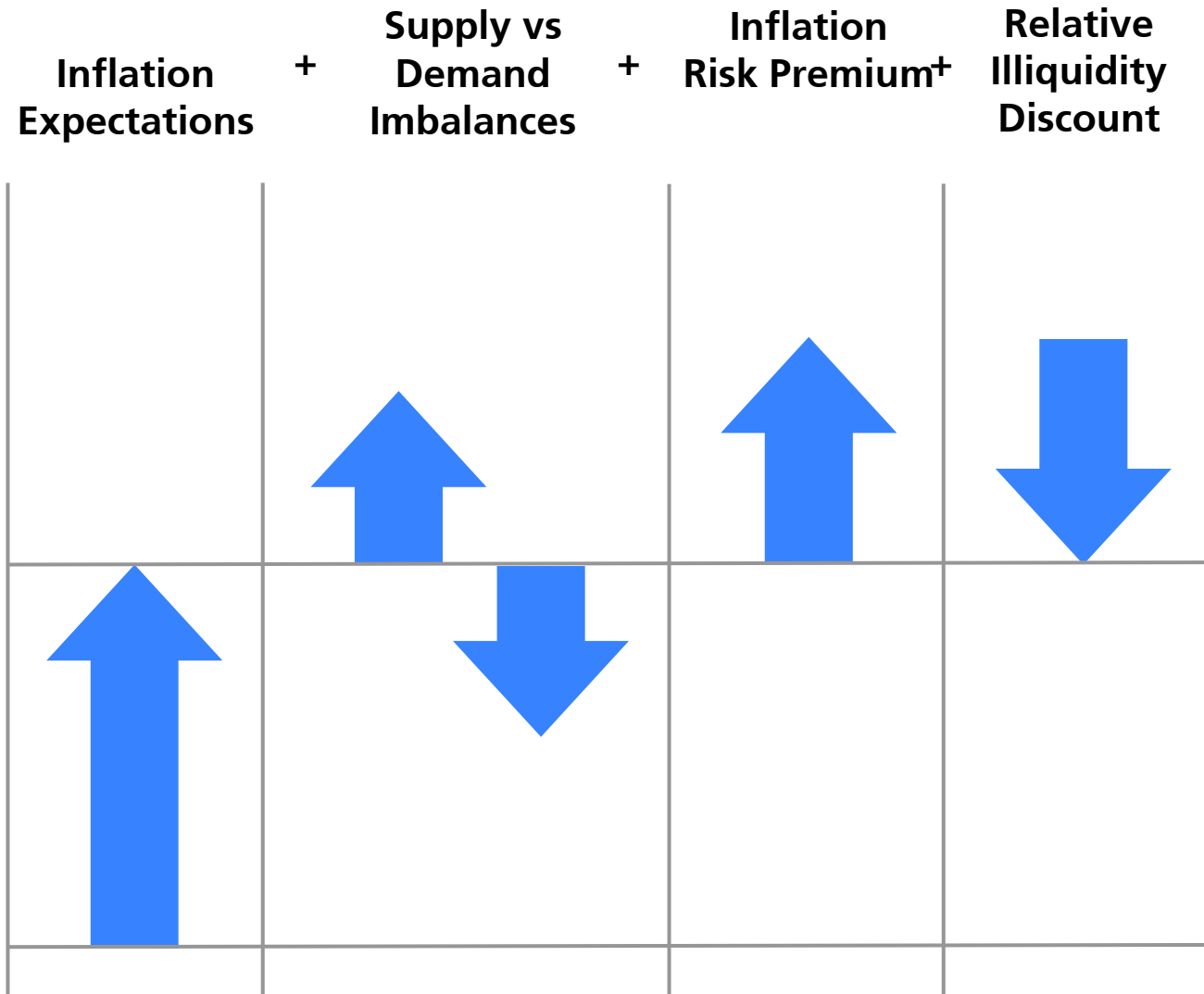
SECTION 2: Conclusion

All 7 assumptions are too simplistic ... we need to re-visit breakevens

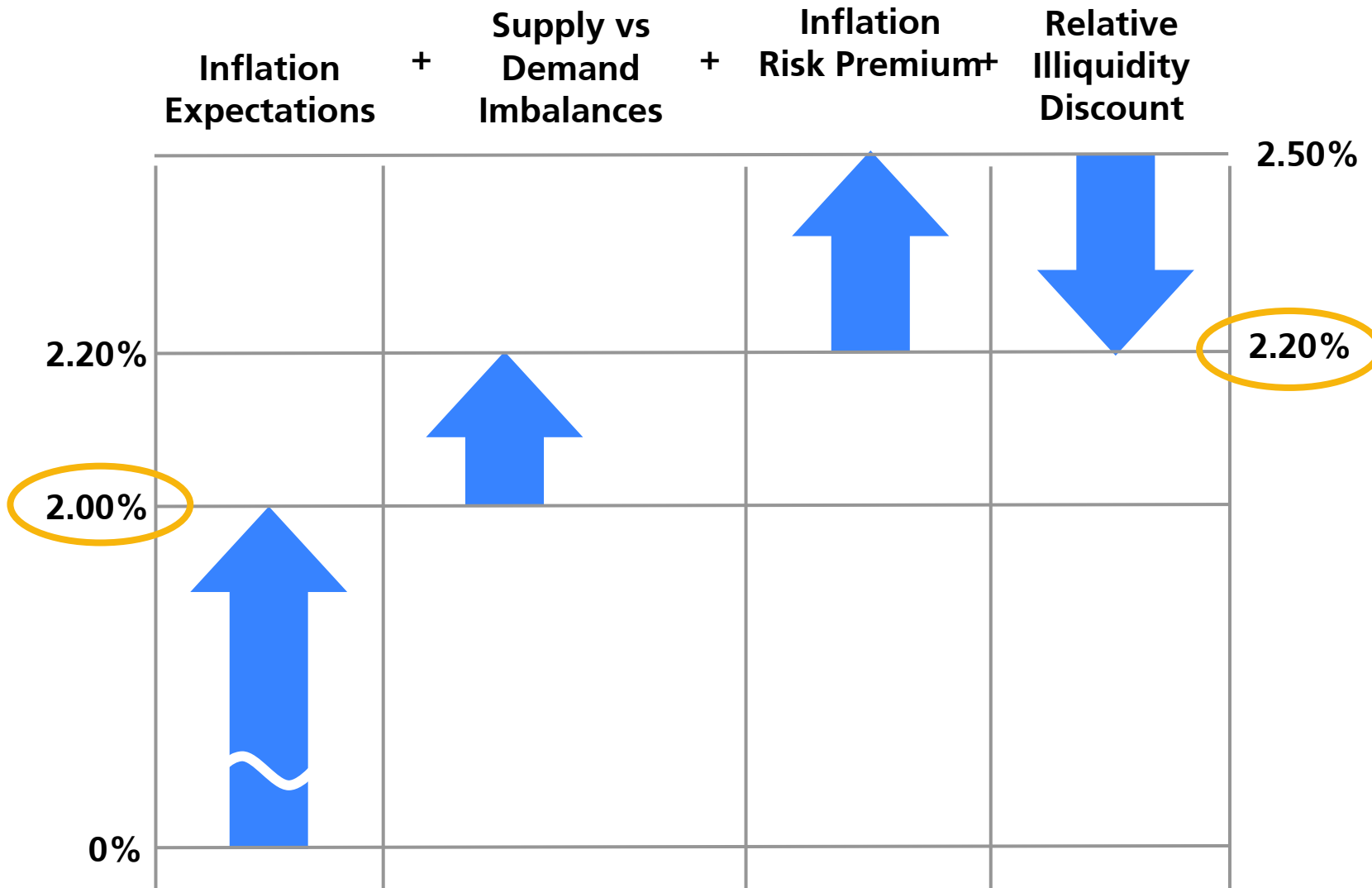
SECTION 3

Breaking down inflation breakevens

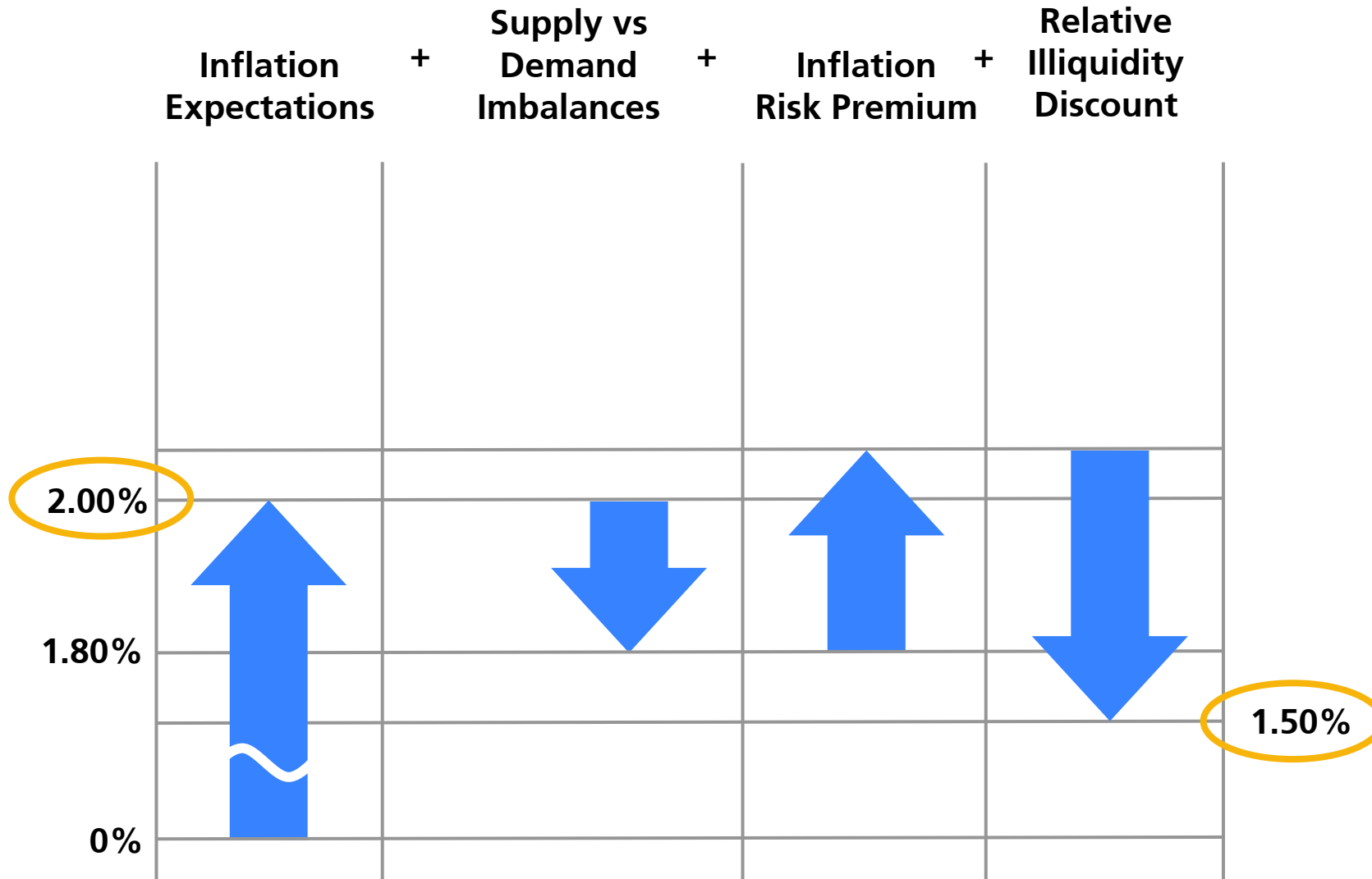
Inflation breakeven: what is it made up of?



Inflation breakevens: typical market example



Inflation breakevens: unusual, but not unrealistic, market example



SECTION 4

Market views

What's next?

- ◆ **Once the recovery is seen as sustainable, we will see a decoupling of breakevens and equity market performance—was already visible in some markets prior to the May 2010 selloffs**
- ◆ **See the recovery as further off than most commentators—it is right to worry about deflation and continued difficulties in the economy—both negative for breakevens in shorter maturities**
- ◆ **Reconciling deflation fears, bad employment numbers, etc. with worries about the longer-term impact of QE: breakeven steepeners—easier to express now with the 30y point in TIPS**

- ◆ **The Aussie market will continue to act as a proxy for Asian market growth and inflationary pressures; extension to 2030 will bring in more international flows**
- ◆ **An improved credit environment should allow more non-sovereign inflation-linked issuance routes in the usual markets**
- ◆ **The large inflation option trades printed earlier in 2010 point to a healthy future in inflation derivatives and especially options going forward**

Questions at the end ...

Thank You!

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