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What role should asset prices play in monetary policy?

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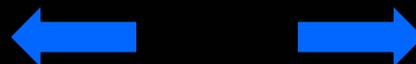
The views expressed are my own and do not necessarily coincide with those of the ECB.

Overview of the presentation

- Overview of the academic literature on asset prices and monetary policy: Five questions
- Asset price booms and monetary policy: Some stylised facts in the industrial countries based on Detken and Smets (2004)
- Asset prices and the ECB's monetary policy strategy



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Five main questions have been addressed:

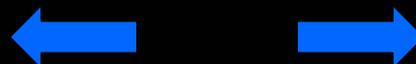
1 Is it useful for the stabilisation of inflation to include asset prices in addition to the inflation forecast in monetary policy reaction functions?

– Examples:

- Bernanke-Gertler (1999): No
- Cecchetti et al (2000): Yes
- Smets (1997), Filardo (2004)



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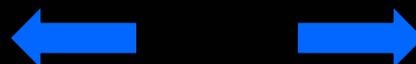
Review of academic literature on asset prices and monetary policy

– Lessons:

- In general, a fixed-horizon inflation forecast will not be a sufficient statistic.
- The underlying source of the asset price changes matters for how to respond (Smets, 1997).
- To the extent that asset prices are driven by non-fundamental factors and have effects on price stability beyond the usual forecast horizon, it will be useful to respond to asset prices. How much is, however, an empirical question.
- Lean against asset price bubbles rather than asset prices generally (Filardo, 2004).



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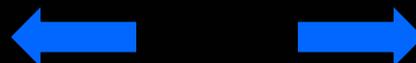
2 Do frictions in the credit market and non-fundamental shocks to asset prices imply a rationale for stabilising asset prices?

– Examples

- Dupor (2001, 2002);
- Gilchrist and Leahy (2002)



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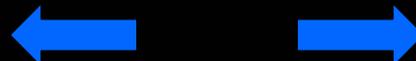
Review of academic literature on asset price and monetary policy

– Lessons:

- Frictions in financial markets (e.g. due to asymmetric information problems) in general do provide a welfare rationale for stabilising asset prices around their efficient levels;
- However, may create a trade-off with price stability;
- Additional problems:
 - Uncertainty about the efficient (target) level of asset prices;
 - Overburden monetary policy:
 - » increased political pressures to maintain certain levels of asset prices
 - » reduced monetary policy clarity



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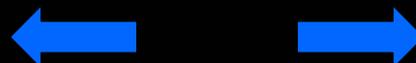
3 What are the policy implications of the nonlinearities that may arise as asset price booms and the associated financial imbalances increase the probability of a sharp, high-cost reversal?

– Examples:

- Kent and Lowe (1997);
- Bordo and Jeanne (2002);
- Filardo (2004);
- Gruen, Plumb and Stone (2003).



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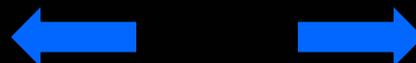
Review of academic literature on asset prices and monetary policy

– Lessons:

- The various linkages between asset prices, financial stability and monetary policy are complex and very model-dependent.
- The appropriate degree of leaning against the asset price bubble involves a subtle intertemporal trade-off between the current costs in terms of inflation and the benefit of reducing the size of the bubble.
- Early action is a good idea, but the identification problem is biggest early on.



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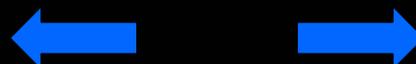


★ 4 Are there any perverse incentive effects that may arise when a central bank is known to respond to an asset price collapse in an accommodative way?

- Miller et al (2000);
- Illing (2001);
- Caballero and Krishnamurthy (2003);
- Bean (2003)



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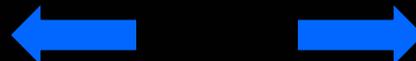
Review of academic literature on asset prices and monetary policy

– Lessons:

- Providing a floor to asset price collapses may ex ante drive up asset prices and thereby worsen the fall out of an asset price collapse.
- Bean (2003): The optimal policy is to commit to a higher weight on price stability, so as to prevent a larger debt build-up by private sector ex ante.
- Symmetric central bank behaviour can reduce moral hazard problems.



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5 Should asset prices be included in the price index targeted by central banks?

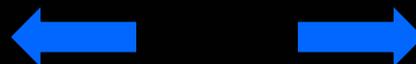
- Alchian and Klein (1973);
- Goodhart (1999)

– Lessons:

- Including asset prices could be justified on theoretical grounds to the extent that asset prices reflect future goods and services prices;



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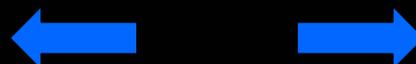
Review of academic literature on asset prices and monetary policy

– Lessons:

- but large weight would lead to many practical problems:
 - asset prices are very responsive to real factors (productivity, preferences, ...)
 - » need for frequent adjustments of target
 - » uncertainty about the equilibrium asset price
 - measurement issues: asset prices are not fully representative of future consumption;
 - controllability: policy rates not the best instrument
- maintaining price stability over the medium term helps stabilising expectations about future prices directly



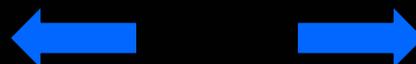
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- Detken and Smets (2004):
 - Follows work by Borio and Lowe (2002), Bordo and Jeanne (2002), IMF (2002), Gourinchas et al. (2001), Mishkin and White (2003), Helbling and Terrones (2003).
 - Identify aggregate asset price boom periods in 18 OECD countries since the early 1970s.
 - Distinguish between “bad” and “good” boom periods based on the size of the fall in output growth following the boom



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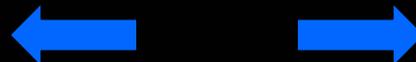


Economic developments around aggregate asset price booms

- Analyse whether there are significant differences in financial, real and monetary policy developments before, during and following “bad” and “good” boom periods
 - apply formal tests
- focus on monetary conditions as captured by, money and credit conditions and Taylor gaps.



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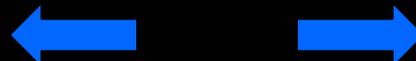


Boom identification

- An asset price boom is a period in which the aggregate real asset price index is more than 10 percent above its recursively estimated trend (data are annual).
 - aggregate (equity and real estate prices);
 - asset price gap (accumulation of imbalances);
 - recursive estimation (HP filter, $\lambda=1000$);
- 2 pre-boom years; 2 post-boom years
- aggregation over 38 booms



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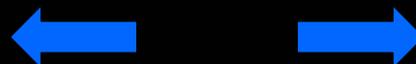


Identify aggregate asset price boom periods

- 38 aggregate asset price booms:
 - not equally spread across countries:
 - few (1-4) boom years in Germany, Belgium, Canada, Italy, France.
 - many (10-13) boom years in Finland, Ireland, the Netherlands and the UK.
 - variation in length:
 - across countries: from one to nine years (Fin 81-89);
 - across time: 1.3 years in 1970s; 3.5 years in 1980s; 4.4 years in 1990s.
 - most booms occurred in the 1980s (18)



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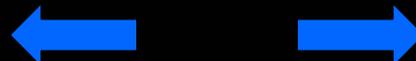


High-cost versus low-cost boom episodes

- High-cost booms are defined as those booms that were followed by a 3 percentage point decrease in average growth following the boom
- 14 high-cost versus 24 low-cost booms:
 - average length of high-cost booms 0.6 years longer;
 - high-cost booms incorporate most booms that were followed by a banking crises

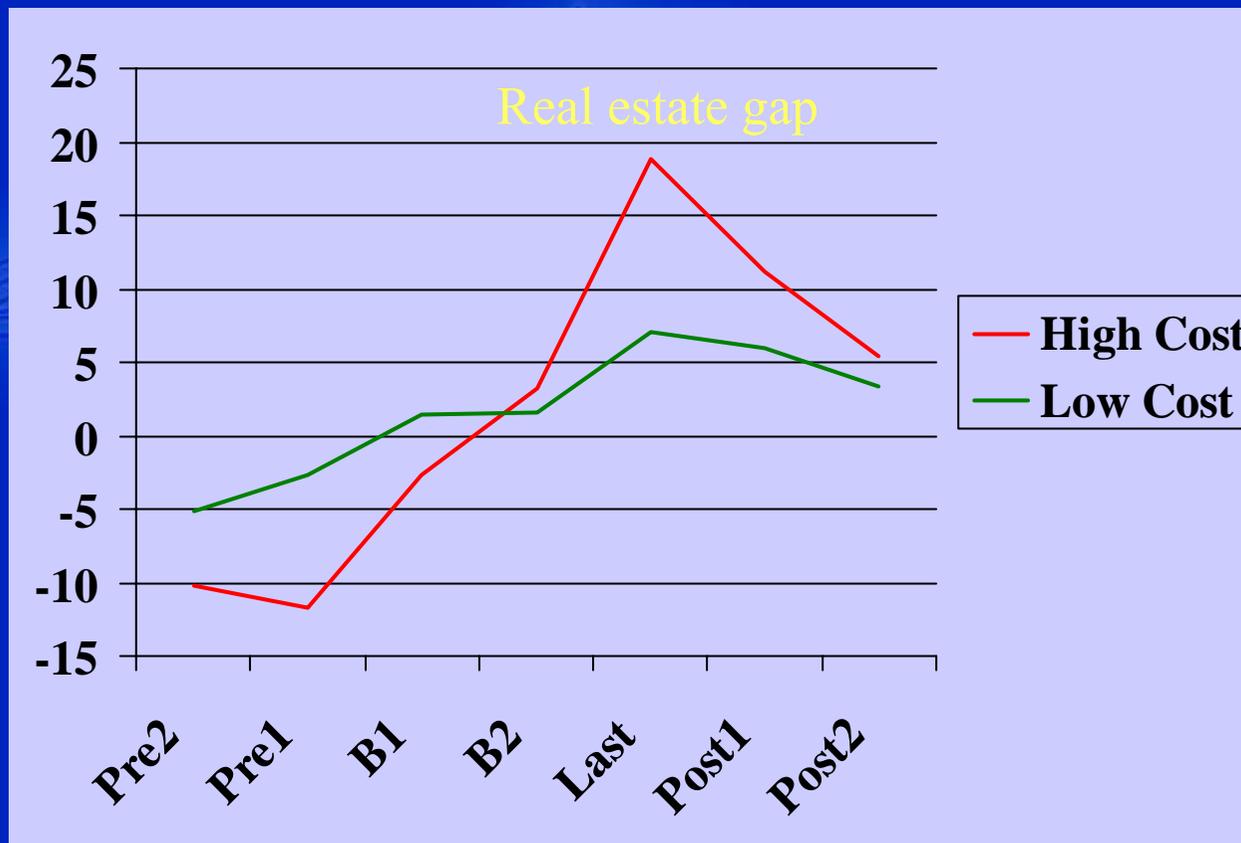


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High-cost versus low-cost booms

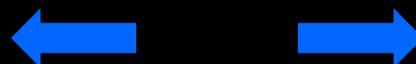
High-cost booms are characterised by a stronger boom in real estate prices, ...



Notes: Figures shown refer to averages over high and low cost boom periods. Pre2=1st year of the pre-boom period; Pre1=year before the boom; B1=1st boom year; B2=2nd boom year; Last=last boom year; Post1=1st year following the boom; Post2=2nd year following the boom.

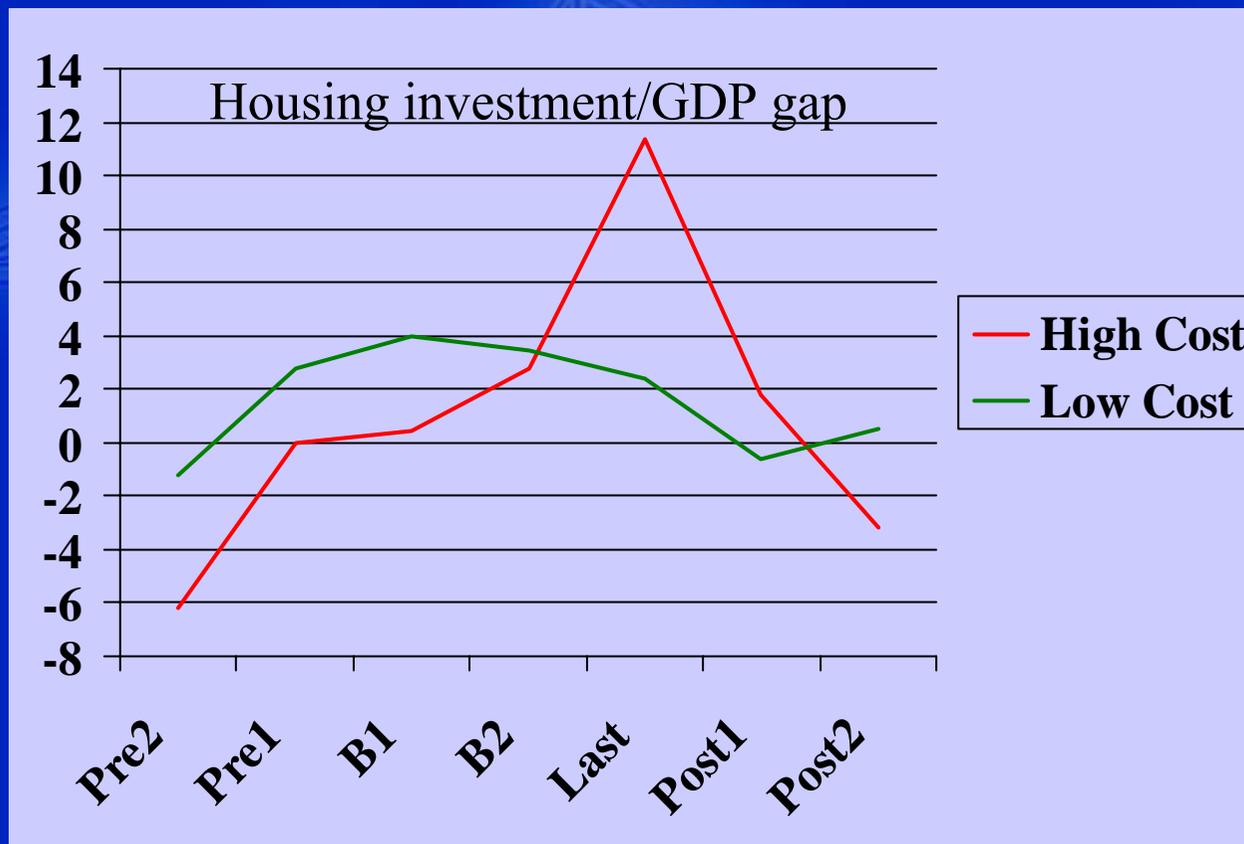


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High-cost versus low-cost booms

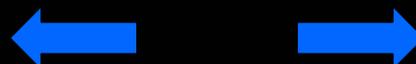
... and in housing investment, ...



Notes: See p.14



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High-cost versus low-cost booms

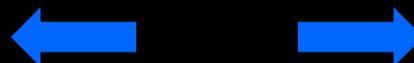
... preceded by higher money growth ...



Notes: See p.14

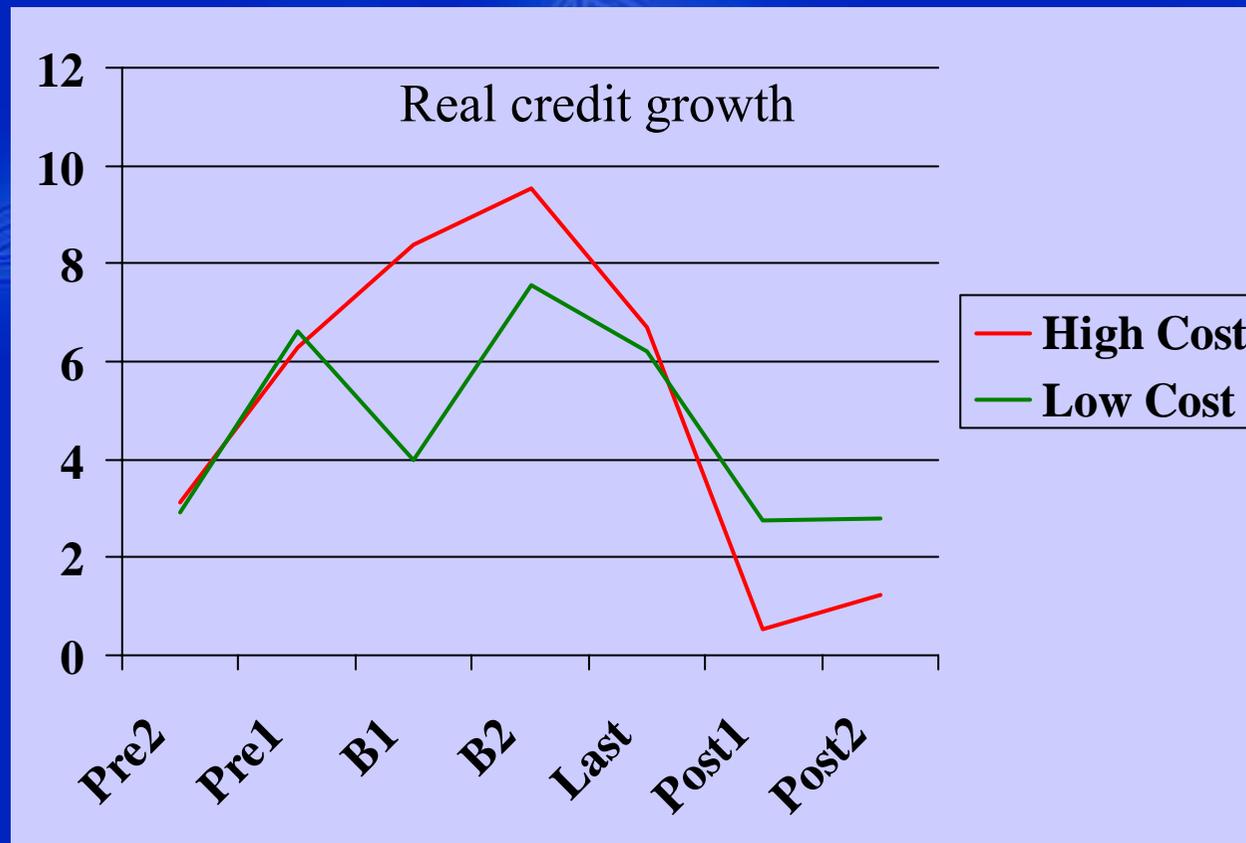


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High-cost versus low-cost booms

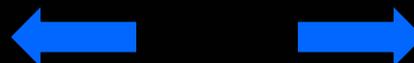
... and credit growth.



Notes: See p.14

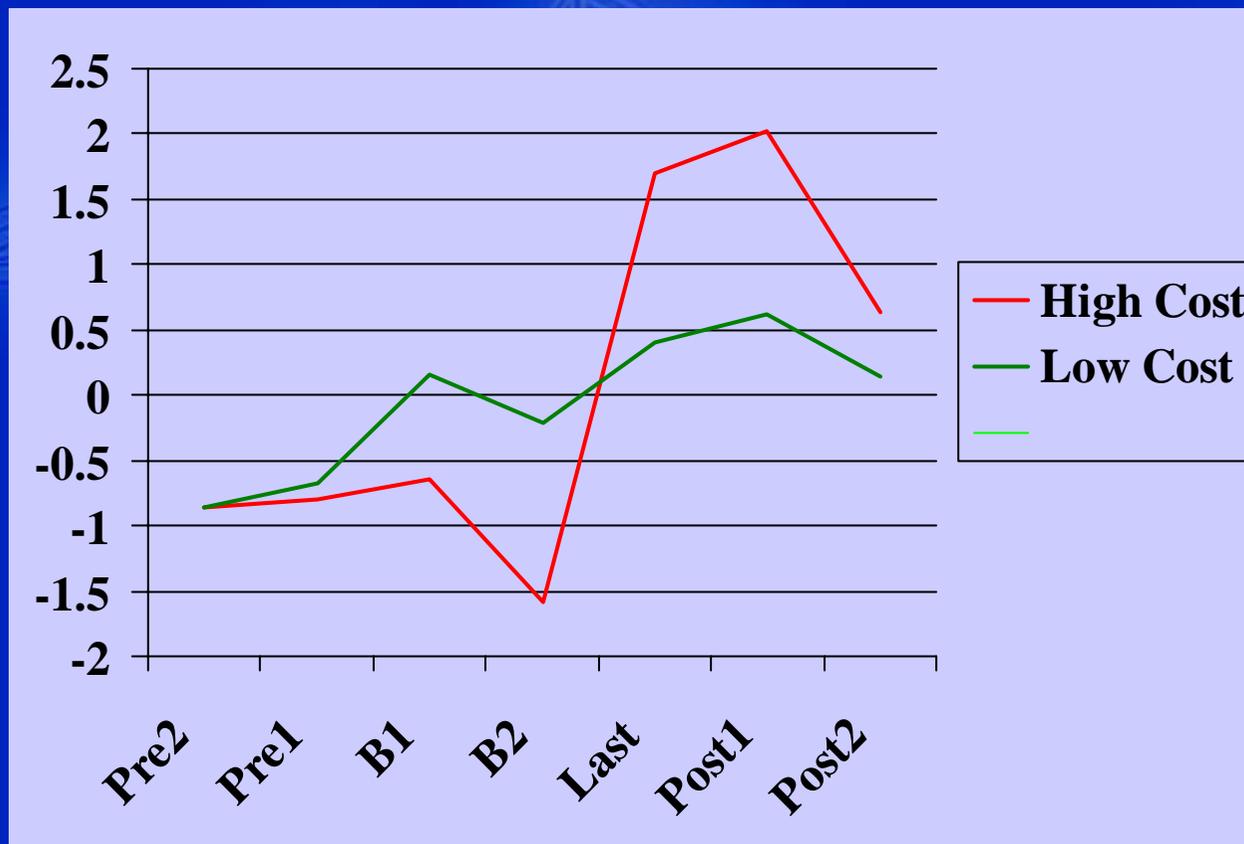


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High-cost versus low-cost booms

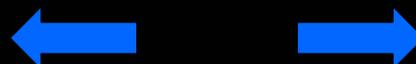
Inflation rises late in the high-cost boom, ...



Notes: See p.14

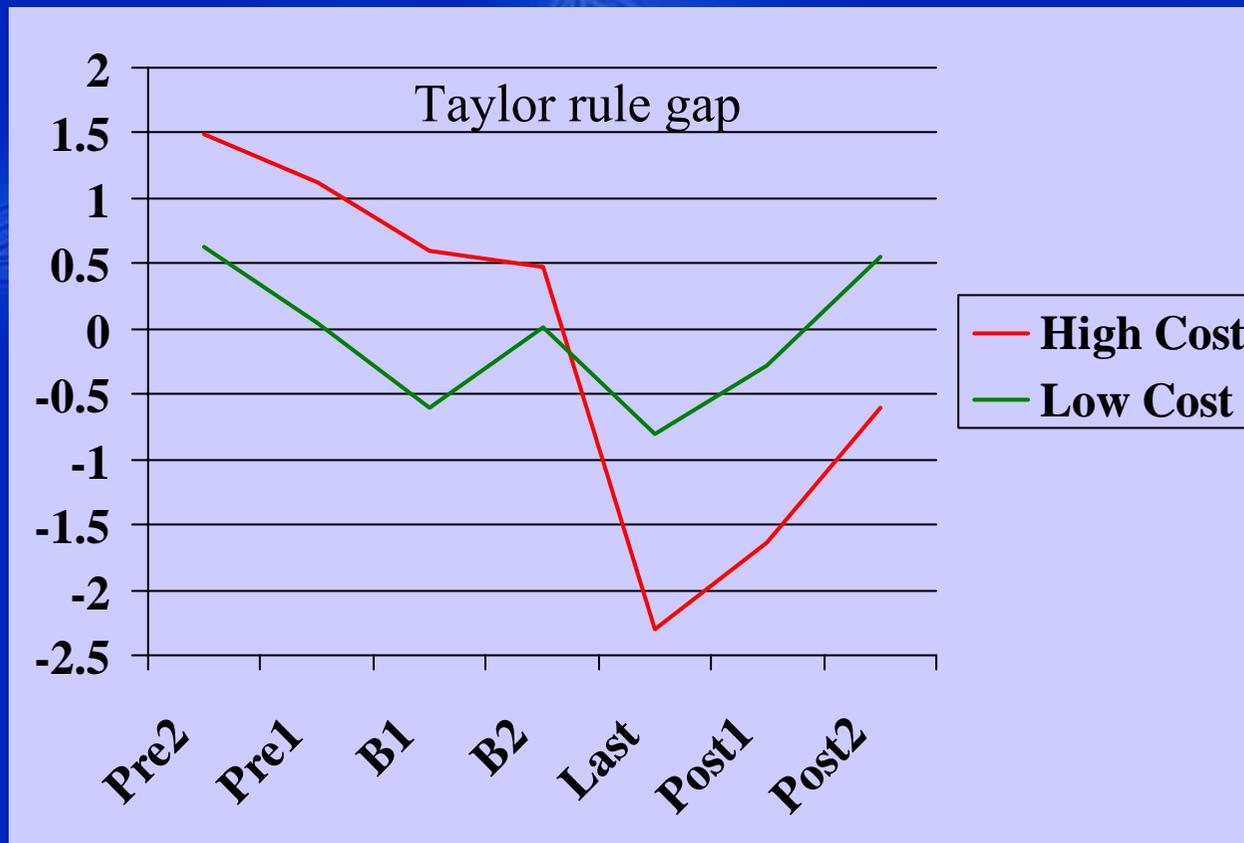


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High-cost versus low-cost booms

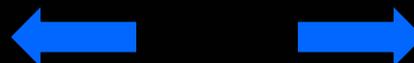
... leading to an implicit easing of monetary policy.



Notes: See p.14



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- High-cost booms are nearly one year longer; are associated with a larger cycle in real estate prices and the output gap, higher credit and money growth and larger investment, credit and money gaps.
- Inflation does pick up during and following high-cost booms and hardly changes during low cost booms.



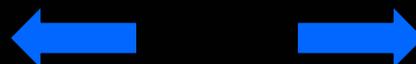
- Nominal interest rates generally do not rise enough to keep up with growing output gaps during the booms. The monetary policy stance (according to the Taylor gaps) is unlikely to have triggered the boom but policy passively loosens towards the end especially for high cost booms.
- Most differences between high and low-cost booms are only visible (significant) towards the end of booms. Credit and money growth are exceptions.



The role of asset prices in the ECB's monetary policy strategy

- Asset prices are taken into account to the extent that they help achieving the objective of maintaining price stability over the medium term
- They play an important indicator role in both the economic and monetary analysis
 - effects on aggregate demand and supply:
 - wealth effects, balance sheet effects, effects on cost of external finance, fiscal effects, ...
 - extraction of private sector expectations:
 - economic activity, inflation, interest rates, risk, ...

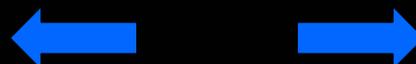
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The role of asset prices in the ECB's monetary policy strategy

- What about asset price “bubbles”?
- The literature suggests that
 - money and credit gaps can help identify costly asset price bubbles:
 - E.g. Borio and Lowe (2002, 2004)
 - “leaning against the wind” may reduce the cost of asset price bubbles:
 - The central bank may accept a short-term deviation from its price stability objective, if this helps to reduce the risk of financial imbalances and instability and thus improves the conditions for maintaining price stability over the medium- and long term.

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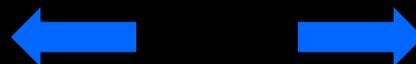


The role of asset prices in the ECB's monetary policy strategy

- Such an approach is consistent with the medium-term orientation and the two-pillar approach of the ECB's monetary policy strategy:
 - the medium-term orientation allows to lean against bubbles to improve conditions for price stability over the medium- and longer term;
 - The two-pillar approach with economic and monetary analysis allows for a broad-based approach, where high money and credit growth and its consequences are taken into account and cross-checked with other evidence.



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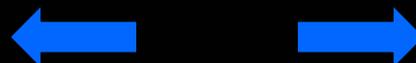


The role of asset prices in the ECB's monetary policy strategy

- “Leaning against the wind” is also consistent with the principle of symmetry:
 - if monetary policy tends to err on the cautious side in case of an asset price crash, it should tend to “lean against the wind” when the bubble forms to avoid moral hazard problems;



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The role of asset prices in the ECB's monetary policy strategy

- However, there are also risks:
 - identification problem: uncertainty about existence and development of bubble
 - uncertainty regarding impact of tightening, especially on market psychology
 - very difficult to achieve a “soft landing” of the bubble
 - the central bank may be accused of “destroying wealth”
- Leaning against the wind should *not* attempt to “prick” the bubble or to achieve a specific asset price level



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