



EUROPEAN CENTRAL BANK

EUROSYSTEM

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# Policy discussion: Why not make house price inflation a macroprudential policy target?

Should macroprudential policy target real estate prices?

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Disclaimer: The views and opinions expressed in this presentation are mine only and do not necessarily reflect those of the European Central Bank or its Governing Council. I am grateful to Stephan Fahr for helpful discussions in preparing this presentation.

## 1 Targeting Asset Prices – Lessons from the Monetary Policy Debate

## 2 Issues for Macroprudential policy

The Objective

The Link to Credit

Determining Real Economic Value

Effectiveness of instruments

## 3 Concluding Remarks

## Should monetary policy target asset prices?

### A 5-step argument in favor (Cecchetti 2000)

1. Asset price bubbles exist
2. Booms and busts distort resource allocation, they affect the monetary policy objective and they threaten market liquidity and financial stability
3. Central banks are responsible for averting liquidity crises and for safeguarding financial stability
4. Bubbles can be identified sufficiently early
5. Central banks have instruments that can burst bubbles

⇒ **Going above and beyond the primary price stability objective, monetary policy should address (and burst) asset price bubbles,**

## Should monetary policy target asset prices?

### Main arguments against

1. Bubbles cannot be identified sufficiently well in advance and Type I/Type II errors (misses and false warnings) do occur  
*Blinder and Reis (2005)*
  2. Central bank instruments are too blunt (*Svensson (2017)*) and may not be effective in stabilising inflation (*Iacoviello (2005)*)
  3. The central bank mops up after the burst  
*Greenspan (2002)*
- ⇒ Pre-crisis **Jackson Hole consensus**: Monetary policy should only take asset prices into account to the extent that they affect inflation (favouring cleaning to leaning)

**Crisis has shown: “mop up afterwards” strategy does not work** (White, 2009)

# Should macroprudential policy target house prices?

## A possible 5-step argument for targeting house prices

1. House price bubbles exist ✓
2. Booms and busts distort resource allocation and threaten financial stability ✓
3. Macroprudential authority is responsible for financial stability ✓
4. Bubbles can be identified (early enough)  $\Rightarrow$  Early Warning Models ?
5. Authority has instruments that can burst bubbles  $\Rightarrow$  complete toolkit ?

**So, should macroprudential policy counter house price increases above and beyond their financial stability implications?**

- **“Inflation is always and everywhere a monetary phenomenon”**

Milton Friedman in *The Counter-Revolution in Monetary Theory* (1970)

⇒ Monetary policy has the objective of ensuring price stability

- **Is systemic risk always and everywhere a house price inflation phenomenon?**

⇒ Is the ensuring of house price stability a macroprudential policy objective?

# How do house prices contribute to systemic risk?

## Sources of house price volatility span several policy domains

- **Productivity shocks**  
in construction sector
  - **Higher quality housing**
- } **Supply factors** (unlikely to be disruptive)
- 
- **Shifts in preferences**  
(e.g. rural vs. cities)
  - **Demographics**
- } **Demand factors** (relevance to other policy domains)
- 
- **Financial innovation**  
(relaxing borrower constraints)
  - **Changing expectations**  
(e.g. income, risk environment)
- } **financial factors with risks** ⇒ **role for macroprudential**

Only some drivers of house prices have financial stability relevance

# Financial crises rarely occur without credit

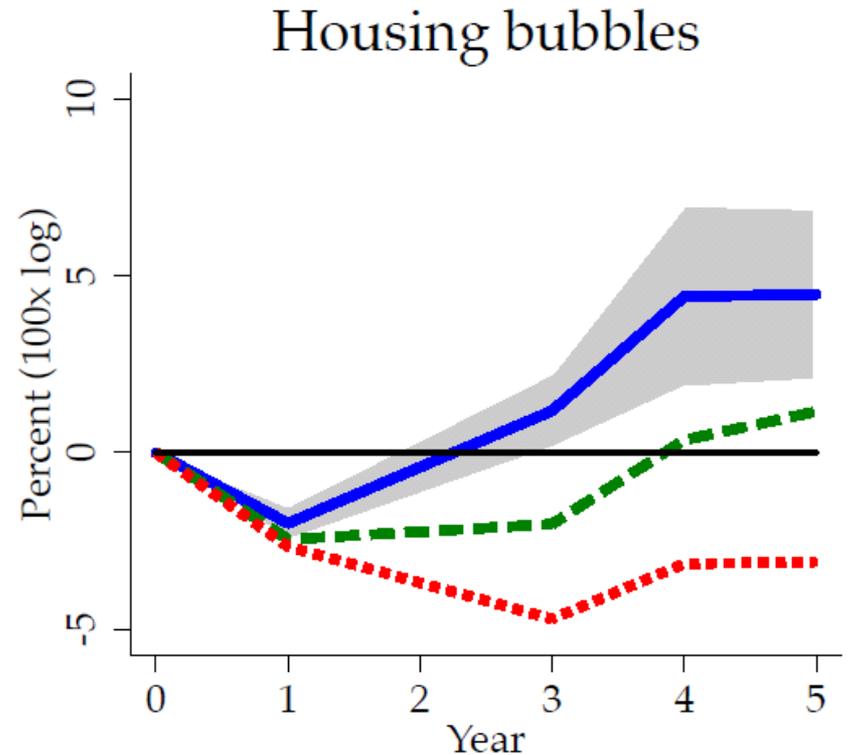
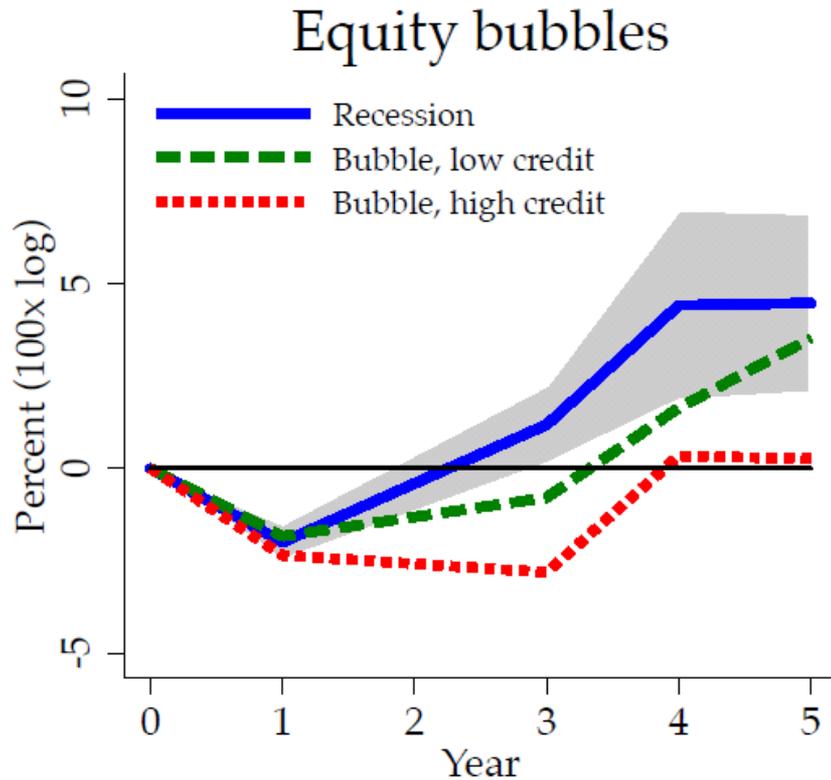
.... “The monetary history of the last four hundred years has been replete with financial crises. The pattern was that investor optimism increased as economies expanded, the rate of growth of credit increased and economic growth accelerated, and an increasing number of individuals began to invest for short-term capital gains rather than for the returns associated with the productivity of the assets they were acquiring. The increase in the supply of credit and more buoyant economic outlook often led to economic booms as investment spending increased in response to the more optimistic outlook and the greater availability of credit, and as household spending increased as personal wealth surged.”

(Kindleberger, C. P., “Manias, Panics, and Crashes: A History of Financial Crises” (1978))

## Four types of asset price bubbles

Equity and housing bubbles with and without credit:

⇒ Type of asset and role of credit makes a difference in recoveries



Source: Jordà, Schularick, Taylor (2015)

Note: Year zero denotes the peak of GDP (start of the recession). Periods considered: 1870–1909, 1920–1935, and 1948–2012

## Systemic risks from house prices

### Housing as a financial asset: the financial accelerator

Credit – house price interaction in boom and bust: the financial accelerator amplifies reaction to shocks (Kiyotaki & Moore, 1997, Bernanke, Gertler and Gilchrist, 1999, Iacoviello 2005)

- **Boom:** cyclical increase in house prices relaxes borrowing constraints for leveraged households
  - ⇒ Increase in economy-wide leverage because
    - a. greater possibilities for intertemporal consumption smoothing (rational)
    - b. wealth illusion (non-rational)
  
- **Bust:** cyclical downturn tightens borrowing constraints and existence of nominal debt contracts triggers defaults
  - Market pricing of collateral tightens constraints:
    - defaults create losses for lenders
    - pecuniary externalities generate negative wealth effects to all home owners
  - ⇒ broad and large effects imply systemic risks

## Disentangling house price fundamentals from bubbles

- **Determining fundamental value particularly difficult for housing:**
  - **Supply factors:** Shortage of land, long time to build ⇒ disequilibria can last for long
  - **Demand factors:** Adjustments in preferences and demographics are persistent
  - **Financial innovation:** Effects on sustainable indebtedness level difficult to assess
  - **Expectations for outlook:** Wide confidence intervals.

⇒ **Real estate as collateral amplifies changes in underlying pricing factors**
- **High uncertainty of fundamental value creates risk of type I and type II errors:**
  - **Type I:** False warnings of bubbles may be due to e.g. delayed supply adjustment  
⇒ Inappropriate policy response stifles housing market unnecessarily
  - **Type II:** Missing bubbles (“this time is different”, “financial innovation”, etc) implies crisis without policy response

⇒ **Key role for set of monitoring indicators and for early warning models**  
Alessi and Detken (2014), Lang et al (2015)  
**Yet, financial crises from asset price booms are hard to predict (Jorda et. al. (2015))**

## Countering housing market imbalances

### Choice of the intermediate objective (which variable?)

#### 1. Targeting house prices

+ : Observable

- : House price level depends on debt levels and risk expectations

- : House price increases can be fundamentally-driven

⇒ **Risk of Type I/II errors**

#### 2. Targeting housing credit

+ : Observable

+ : Direct link to systemic risk and financial stability (debt sustainability)

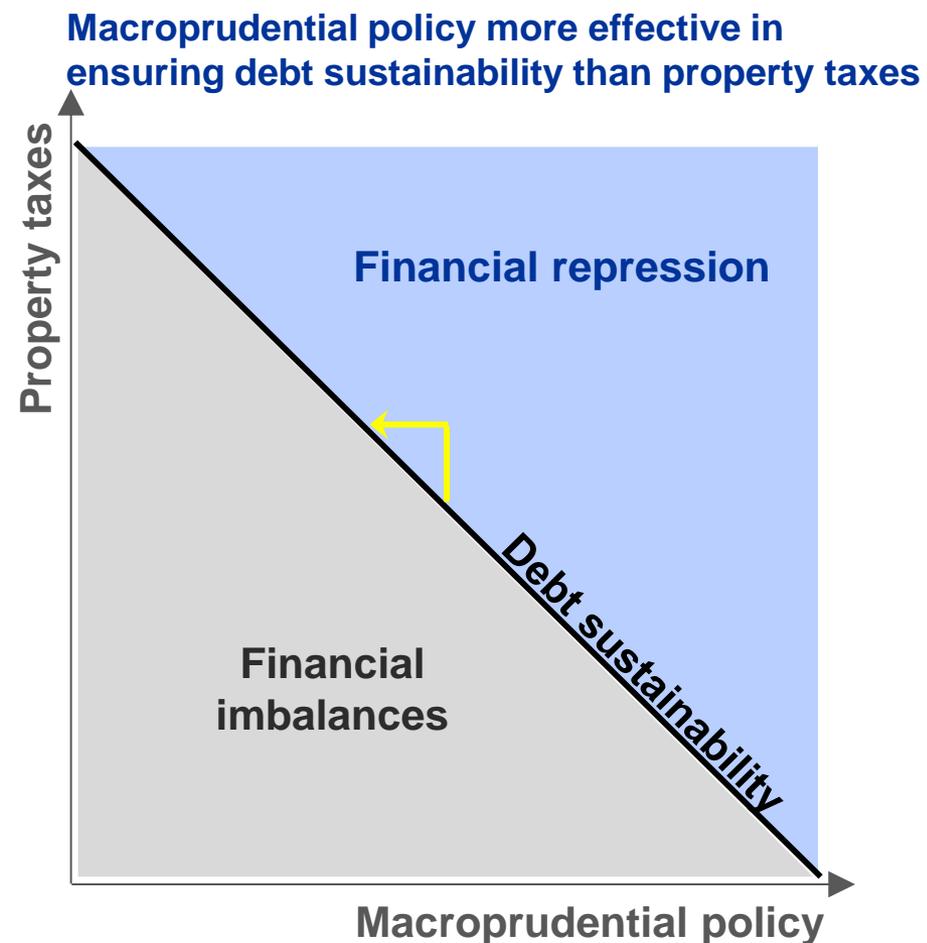
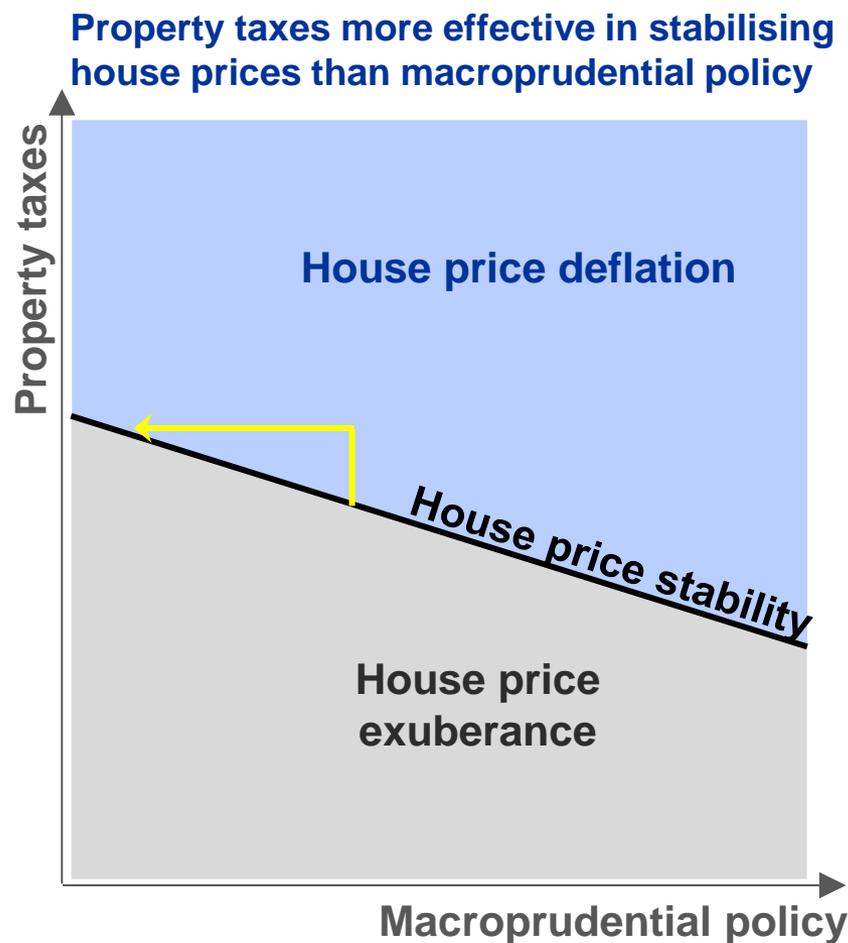
- : Debt sustainability dependent on future

⇒ **Targeting financial stability through credit directly counters risks**

**Effectiveness of macroprudential instruments in safeguarding financial stability is tightly linked to the choice of the intermediate objective**

## Policy assignment (a thought experiment)

Assign policies according to effectiveness of achieving objective



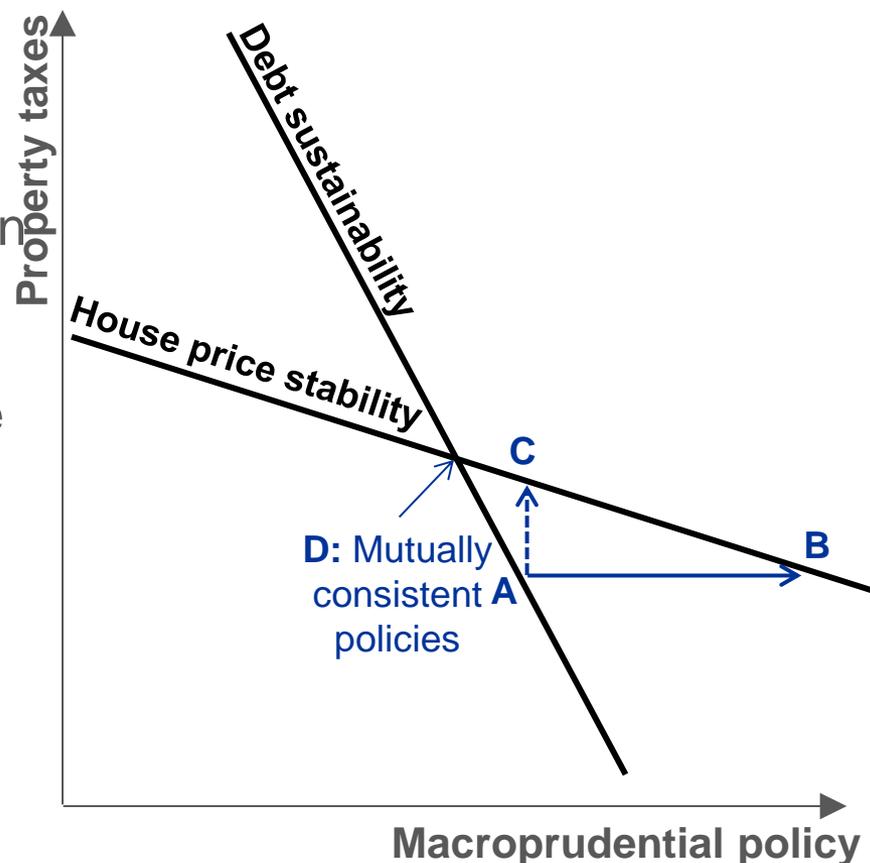
## Policy assignment (a thought experiment)

### Macroprudential policy better aimed at ensuring debt sustainability

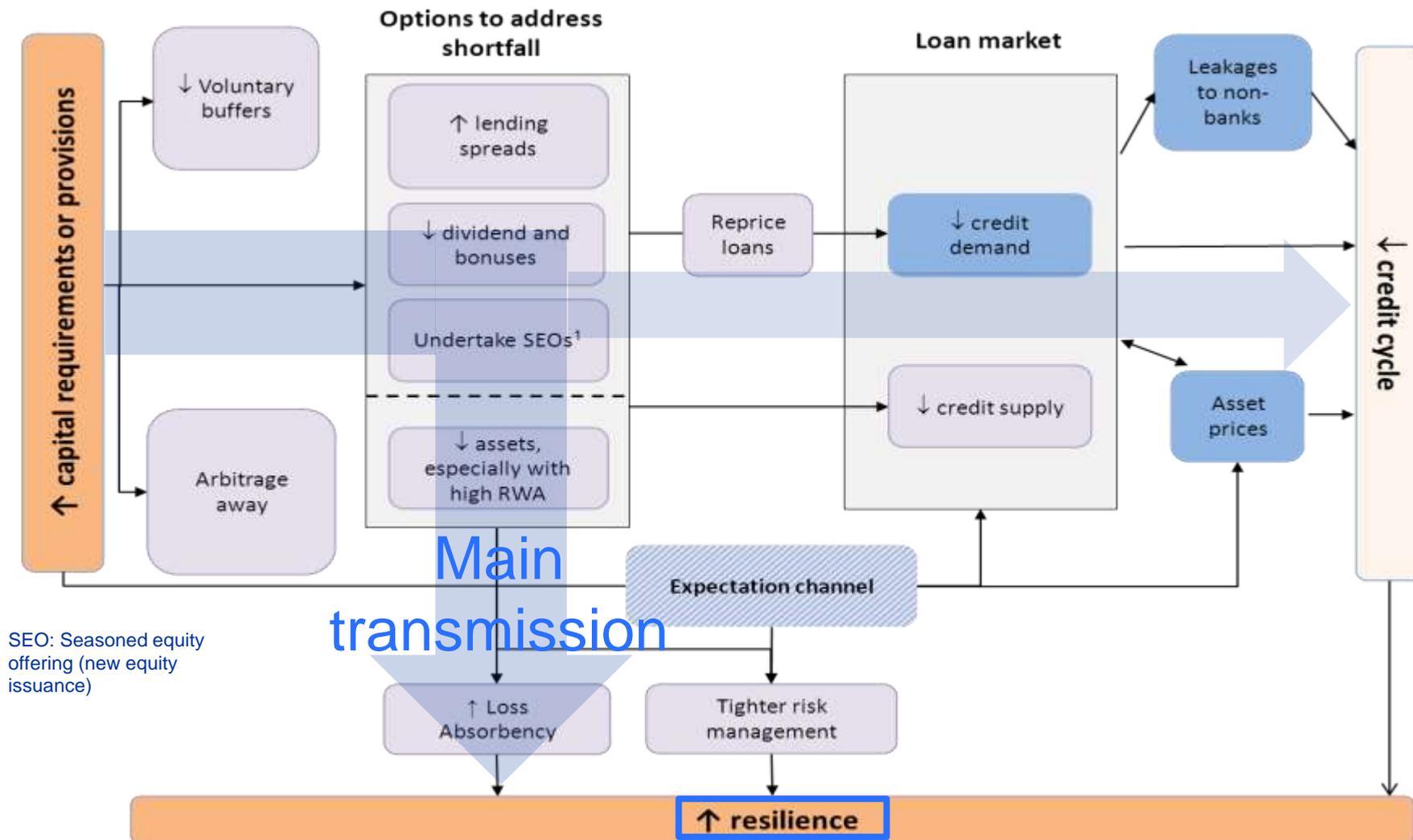
- **At A:** Debt is sustainable, but house prices are too high
- **At B:** House prices stabilize, but at lower levels, with economic contraction ⇒ debt becomes unsustainable
- **Better to aim at C** with more effective assignment: through property taxes

Mutually consistent policies can be achieved at D.

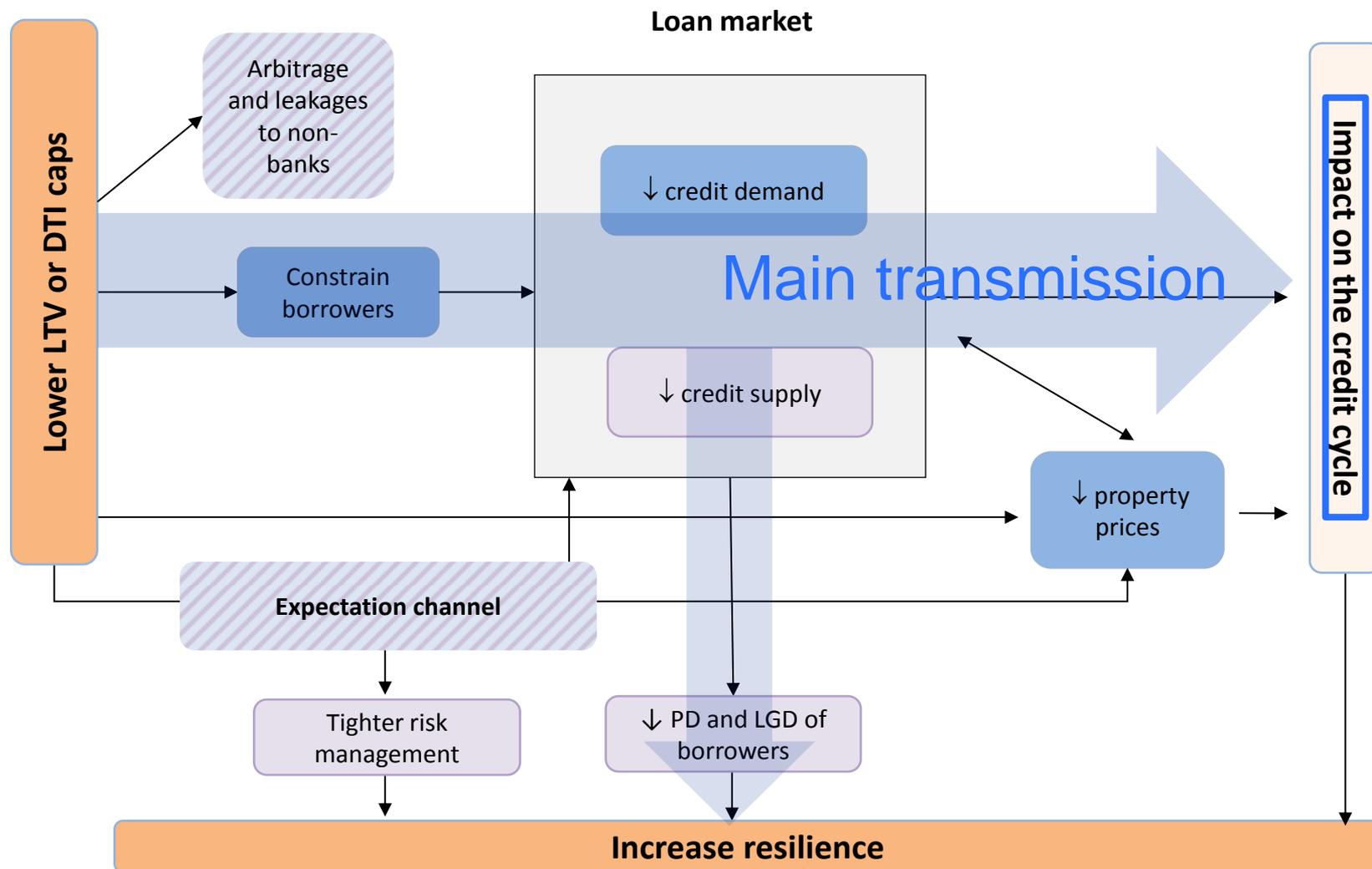
### House price stability and debt sustainability in property tax – macroprudential policy space



## Transmission channels of capital-based tools

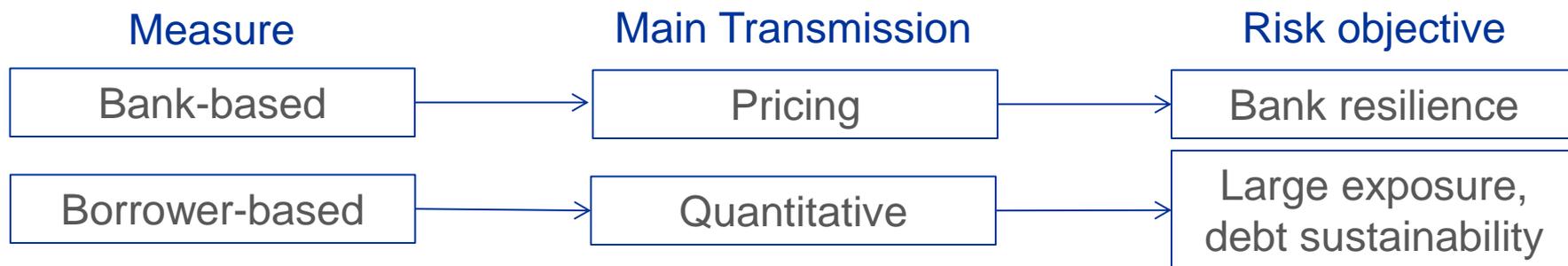


## Transmission channels of borrower-based tools



## Selection of instruments: empirical evidence

- **Transmission of macroprudential policy on lending**



- **Bank-based measures mainly enhance bank resilience**

- **CCyB**: limited impact on real estate / other asset trade-off (Basten & Koch (2015))
- **Risk-weight add-ons**: limited lending impact Ferrari, Pirovano, Kaltwasser (2016),
- **LTV-sensitive requirements**: affects high risk/ low risk trade-off
- **Risk-weight floors**: potentially incentivize high-risk lending

- **Borrower-based measures are more effective for credit flows**

- LTV, LTI and DSTI measures limit credit flows (Kuttner & Shim 2013),
- But effects on real estate prices limited:
  - Kelly et al. 2015 (€1 more available credit raises house prices by 22 cents)
  - Evidence from HK, SG, Korea: LTV caps have a limited impact property prices

- **Not clear that stabilising house prices is a macroprudential policy objective – creditless house price booms are possible and are not as costly as house price booms fueled by credit**
- **Even if stable house prices were a macroprudential policy objective, the challenges in assessing fundamental values are great, running the risk of Type I/ Type II errors for policy-making**
- **And, even if house prices were predictable, it is not clear that the macroprudential policy tool-kit contains the most effective instruments for moderating house price booms and busts**
- **Although macroprudential policy may have limited effects on house prices in the long-run, it can still focus on countering systemic risks created by house price booms by ensuring credit growth and leverage are not excessive**

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## Borrower-based instruments

LTV and DSTI/LTI activated or adjusted jointly, sometimes with maturity cap

		LTV limits (reduces LGD)	Income-based limits (reduces PD)	Max. maturity restriction (reduces long-term interest rate sensitivity)
SSM	Cyprus	70%, 80%	DSTI: 80% (65% in case of FX loans)	
	Estonia	85%, 90%	DSTI: 50%	30 years
	Finland	90%, 95%		
	Ireland	70%, 80%, 90%	New loans with LTI >3.5 cannot exceed 20% of portfolio	
	Latvia	90%, 95%	Internal DSTI limits	
	Lithuania	85%	DSTI: 40%-60% w/ interest rate sensitivity test at origination	30 years
	Netherlands	101% (1pp decline p.a. to 100% in 2018)	DSTI: 10-38%	30 years
	Slovakia	80%, 90%, 100%	80% (subject to 2 p.p. interest rate increase p.a. if interest rate is not fixed)	30 years (8 years for unsecured loans)