

# THE ANATOMY OF THE TRANSMISSION OF MACROPRUDENTIAL POLICIES: EVIDENCE FROM IRELAND

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# Macroprudential Policies

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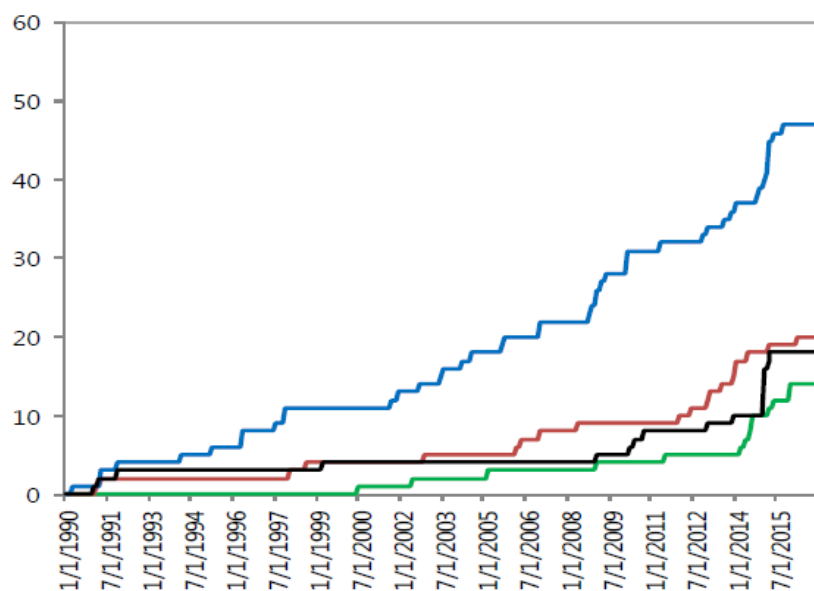
- The recent wave of financial has made clear that existing tools – whether microprudential, monetary, fiscal, or other policies – are not sufficient to assure financial stability
- This has led to a call for macroprudential policies, policies aiming to reduce systemic risks arising from “excessive” financial procyclicality

# Several Tools

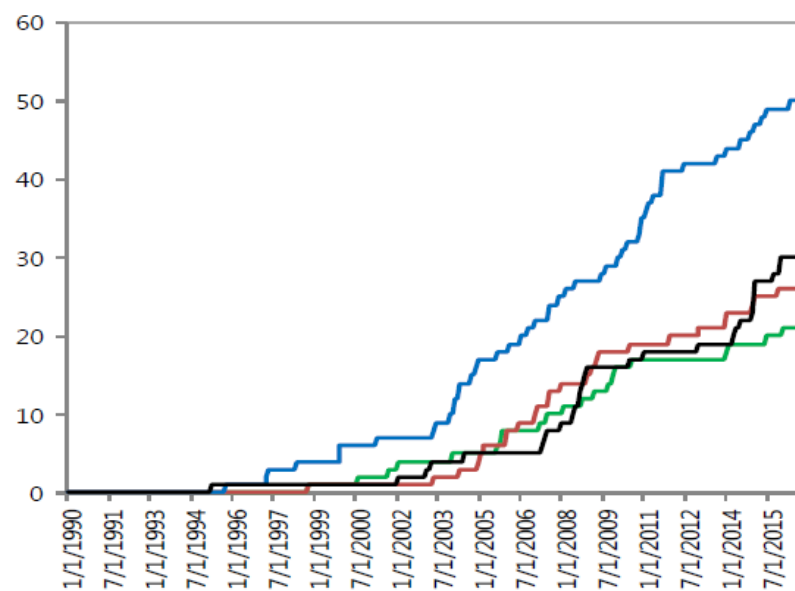
- Capital tools to address risks from credit booms
  - ▣ Countercyclical Capital Buffer (CCB), Dynamic Provisions
- Liquidity tools to address funding
  - ▣ Basel III Liquidity Coverage Ratio (LCR), Core Funding Ratios
- Structural tools to address risks from interconnectedness
  - ▣ D-SIB and G-SIB surcharges, Systemically Important Insurers surcharges
- Asset-side tools to address corporate and household vulnerabilities
  - ▣ Loan-to-Value (LTV), Loan-to-Income (LTI)

# Usage Around the World

**Advanced Economies**



**All Other Economies**



Sources: 2011 IMF Survey, BIS database (Shim et al., 2013, "Database for policy actions on housing markets"), ESRB database, central bank, BCBS and FSB websites, IMF papers, Article IVs, FSAPs and survey with IMF desk economists. The database covers 64 countries, of which 32 are advanced economies according to IMF (World Economic Outlook) classification.

- LTV, DSTI, Loan Restrictions
- Sector Specific Capital Buffer/ Risk Weights
- General Capital Requirements, Countercyclical Capital Buffer, Dynamic Loan-Loss Provisioning
- Liquidity Requirements, Limits on FX Positions

# LTV Limit in Europe

Member State	LTV limit	Basis for limit
Czech Republic <sup>(11)</sup>	100%; the share of loans with an LTV > 90% cannot be more 10% in any given quarter	Recommendation
Denmark <sup>(5)</sup>	95%	Recommendation
Estonia <sup>(13)</sup>	85%; 90% in the case of a KredEx guarantee	Binding regulation
Ireland	80%; for first-time buyers a sliding LTV limit starting at 90% based on property value; 70% for "buy-to-let" housing; 75% for preferential risk weighting <sup>(9)</sup>	Binding regulation
Cyprus <sup>(6)</sup>	70%; 80% in cases where the credit facility is granted for financing the primary permanent residence of the borrower	Binding regulation
Latvia <sup>(1)</sup>	90%; 95% for loans covered by a state guarantee under the Law on Assistance in Resolution of Dwelling Issues (since July 2014)	Binding regulation
Lithuania <sup>(3)</sup>	85%	Binding regulation
Luxembourg <sup>(8)</sup>	80%	Binding regulation
Hungary	Between 35% and 80% (depending on the currency denomination of the loan)	Binding regulation
Malta <sup>(7)</sup>	70%	Binding regulation
Netherlands	From 106% (2012) to 100% (2018)	Binding regulation
Romania <sup>(4)</sup>	Between 60% and 85% (depending on the currency denomination of the loan)	Binding regulation
Poland	90% as of 2015, 85% as of 2016 (with a further tightening over time, until 80% in 2017)	Recommendation
Slovakia	100%; the share of loans with an LTV > 90% cannot be more 20% in any given quarter (with a further tightening over time, until 10% in 2017)	Recommendation
Finland <sup>(12)</sup>	90%; 95% for first-time-buyers	Binding regulation
Sweden <sup>(2)</sup>	85%	Binding regulation
Norway <sup>(14)</sup>	85%	Binding regulation <sup>(10)</sup>

# This Paper

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- Does this LTV limit work in increasing the resilience of the financial system?
- Main result: banks readjust their assets to circumvent the regulation
- This angle of the study of macropru policies is a very clear contribution to the literature
- I have a few comments (hopefully useful) to an already very good paper

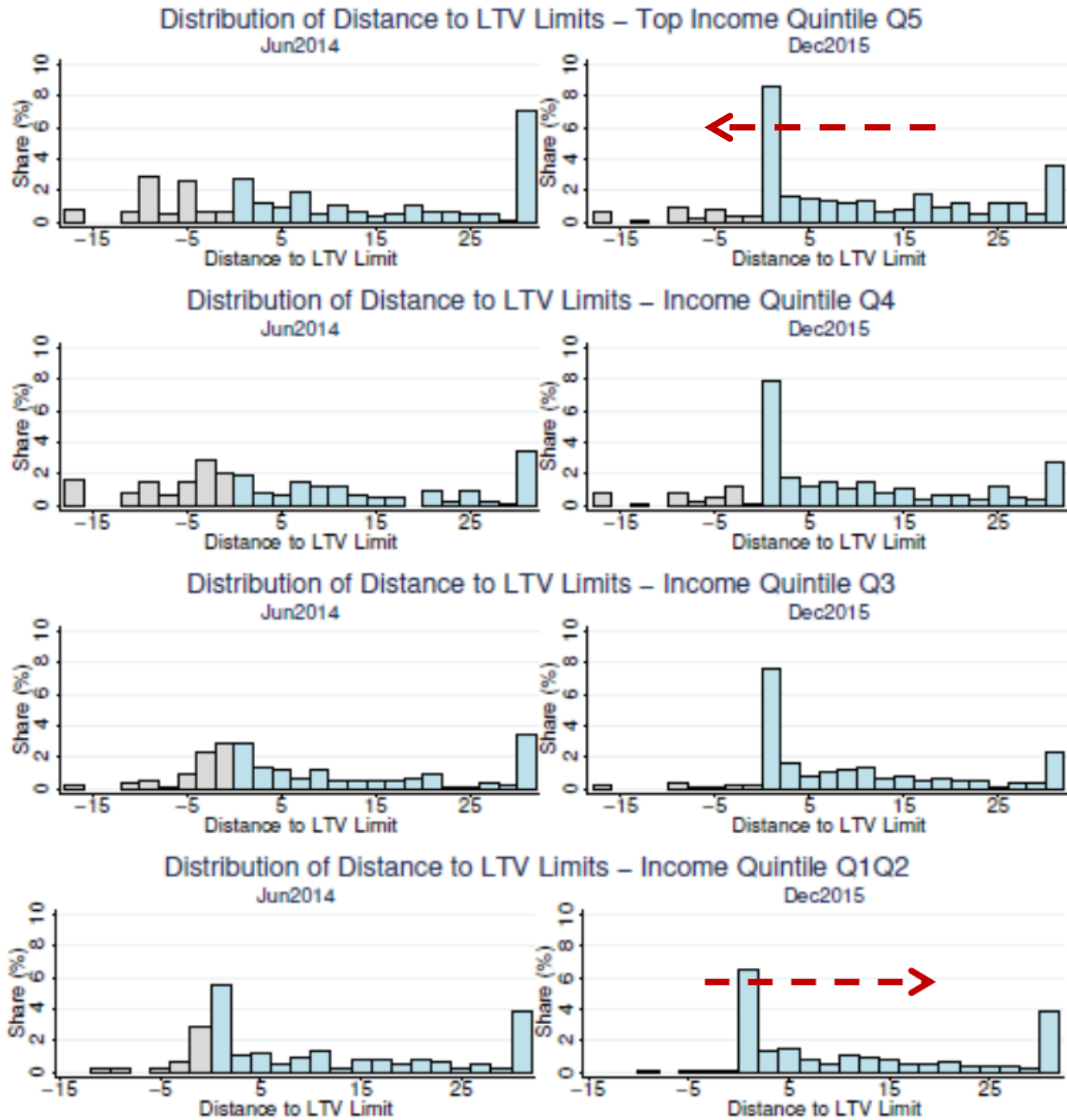
# Results

- No impact on aggregate credit but mechanical substitution between conforming and non conforming loans
- “More exposed” banks (with a larger percentage of non conforming loans pre policy) have lost a large part of their business. They make up for it by lending more to rich households who have a larger distance to the limit
- House price dynamics consistent with this
- Banks “more exposed” also take more risk in credit to firms and in securities

# Data

- Very granular data: loan level for mortgages and loans to firms and security level
- Caveat: (at the moment) no data on
  - ▣ Applications and rejections of mortgages (extensive margin)
  - ▣ Default rates/arrears (partial equilibrium effects)
  - ▣ Maturity, Type of interest rate, Credit score of households (potential margin for adjustment)

# LTV and income buckets



# LTV and income buckets



# Splitting Between High and Low Leverage

- Useful to show these graphs for exposed and non exposed banks
- Useful to split the sample between high leverage and low leverage to see on which margin banks adjust
- More exposed banks should fully exploit the allowance of issuing non conforming and bunch more at the limit
- Clear why exposed banks should do this strategy but why for the low income bucket they do the opposite?
  - ▣ Results could be coming from the high leverage and more exposed banks were already bunching at 90?

# Effects on house prices

- Interesting that the story seem consistent with house price dynamics
- Of course, challenging since it lacks a pricing model based on fundamentals
- Additional evidence:
  - ▣ Distribution of exposed banks in the Dublin area and outside
  - ▣ Since this is a diff in diff result, need to show that there is no substitution so in aggregate there is larger supply of credit in some areas

# Risk taking in loans and securities?

- Central vulnerability of Irish banks is concentration of the portfolio in housing (65 % of loan portfolios is residential mortgages, a further 11 % is for commercial real estate purposes- CBI 2016)
- Are more exposed banks buying securities or extending credit to institutions/firms which are less exposed to the housing market in Ireland? Useful a complementary analysis of the concentration risk?

# Robustness/Clarifications

- How many banks in the sample? Are the banks with higher exposure.. the larger? The worse capitalized? The ones with more NPLs? The ones who received more bailout money?
- Remove Q4 2014 from the pre period (time between first announcement Oct 2014 and implementation Feb 2015)
- Show parallel trends or placebo tests for results on reallocation of credit to richer households, of credit to firms and of securities
- Preferential risk weight, 35%, is restricted to principal dwelling houses with LTV less than 75%. Does it matter? (Campbell, Ramadorai, Ranish, 2015)

# Conclusions

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- First-order question, given LTV limit is one of the most used macroprudential tool around the world
- Very clear contribution on the bank asset reallocation response
- I offered a few suggestions to, hopefully, strengthen the story