# *Forecasting Mortgages: Internet Search Data as a Proxy for Mortgage Credit Demand*
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Discussion by

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Main ideas of the paper

1) Create an index of the incidence over weeks of google searches related to mortgages

2) Test whether such an index can be a leading indicator for new mortganges

3) The difference between the interest in mortgages (demand) and actual new mortgages can be an indirect indicator for credit rationing

Google searches seems to be a good leading indicator

Smoothed month-on-month growth rates of mortgages and searches
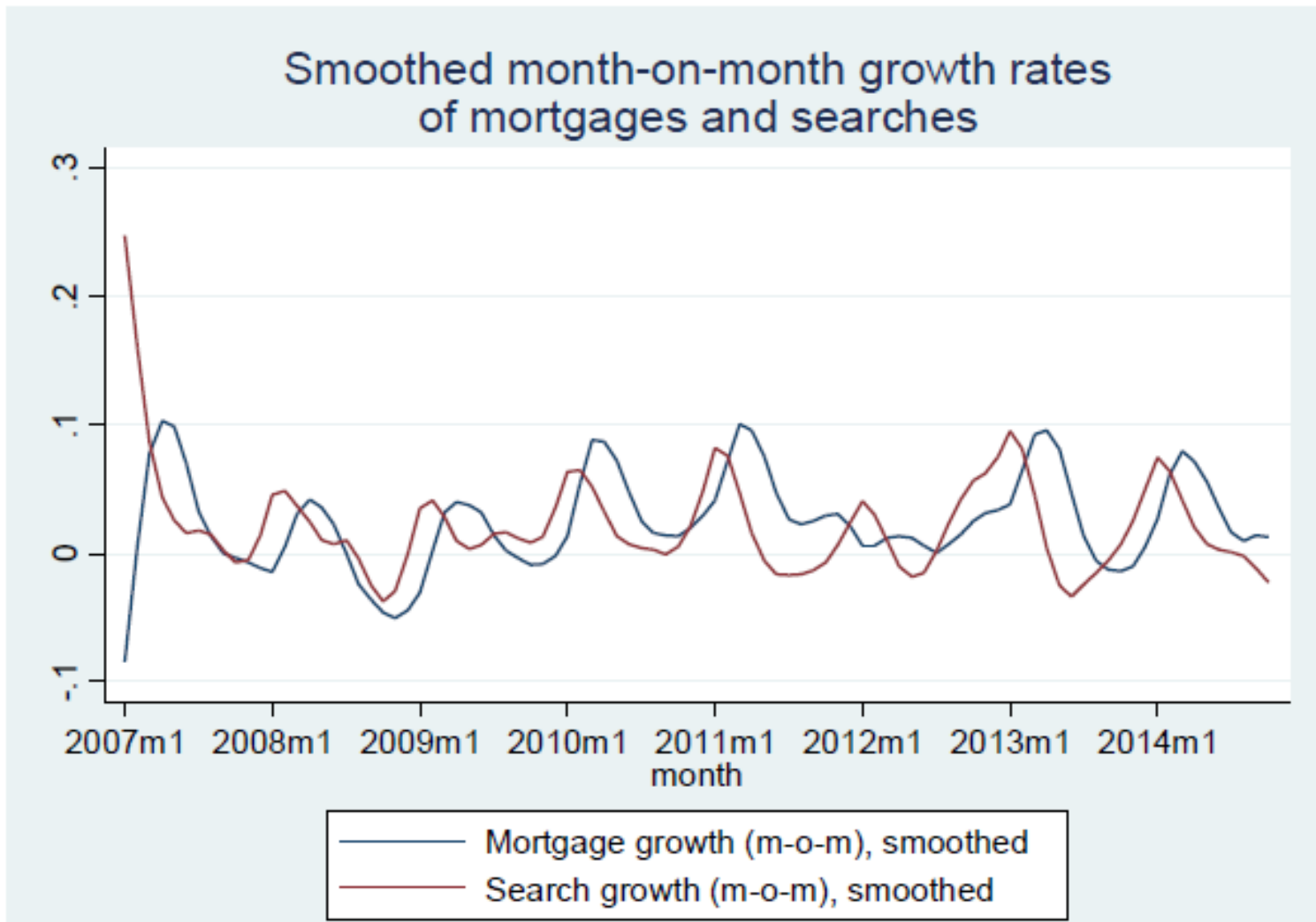
Forecasting

Table 2: Mortgage Growth Out-of-sample Forecasting Exercise

	AR(1)	ARX	Change	Diebold-Mariano S(1)	p-value
One-step-ahead forecast					
MAE	0.1411	0.1162	-18%		
RMSE	0.1919	0.1475	-23%		
				4.25	0.00
Two-steps-ahead forecast					
MAE	0.1420	0.1150	-19%		
RMSE	0.1924	0.1466	-24%		
				4.27	0.00

Weaker but still good
results with seasonal terms

Discussion

Certainly encouraging results, confirming previous applications

Further research could improve robustness

A longer time series

Now forecast comparison only takes place starting with 2007 (google series is available since then)

But results lose practical relevance if a non-google estimate run on a longer time inteval would have a better forecasting performance

Alternative exogenous variables

Unemployment rate

PMI/Consumer expectations

Interesting to see whether these have a better forecasting power (either alone or in combination with google data)

Alternative in sample/out of sample

Currently in sample (25%) is quite small compared to out of sample

I would try using more combinations of insample/out of sample

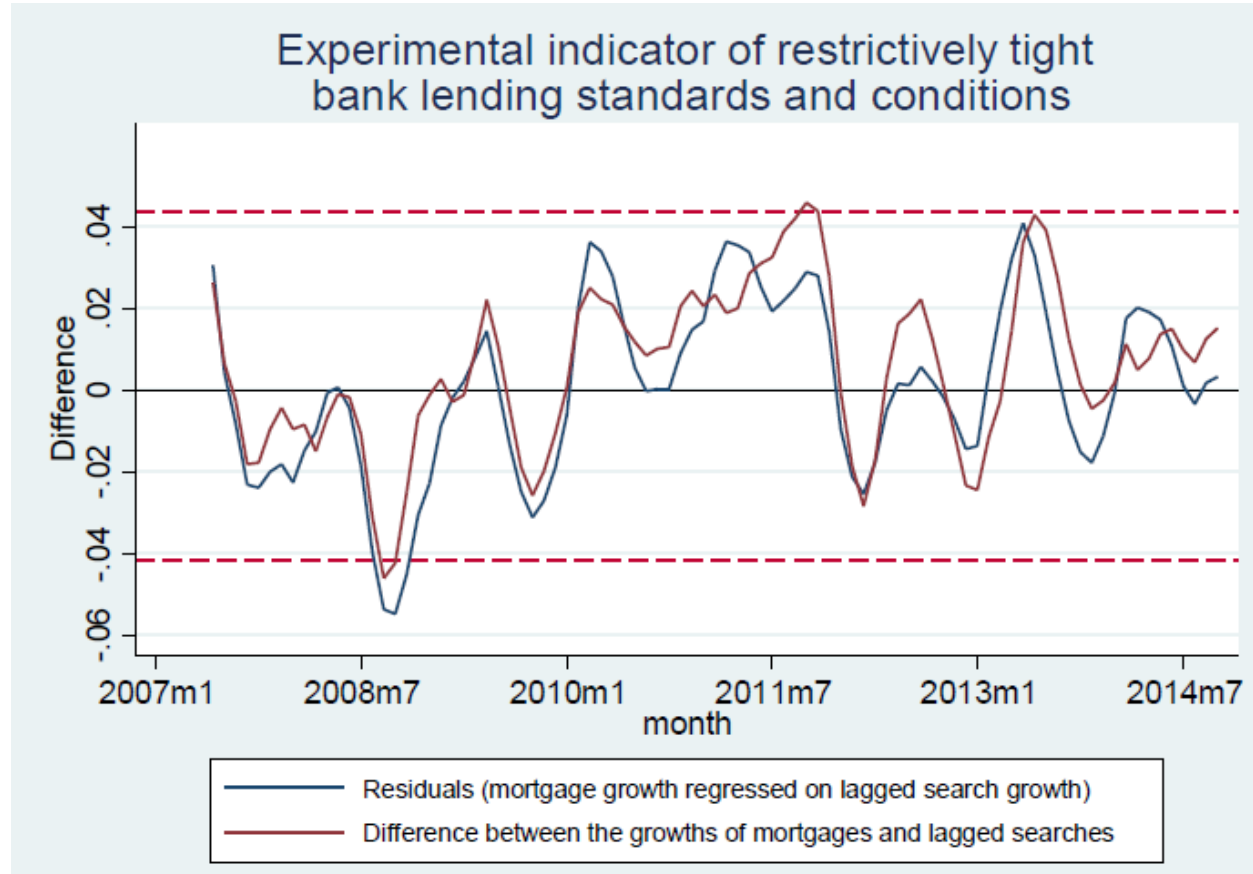Check whether results hold in different business cycle conditions

Alternative specifications

Different lag structures

MA term?

Tightness indicator

Experimental indicator of restrictively tight bank lending standards and conditions

Comparison with BLS (2012-)?