

# Report on Bachelor / Master Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University in Prague

<b>Student:</b>	<b>Bc. Kristýna Brunová</b>
<b>Advisor:</b>	<b>prof. Roman Horváth, Ph.D.</b>
<b>Title of the thesis:</b>	<b>Monetary Policy and House Prices in the US: Evidence from Time-Varying VAR Model</b>

## **OVERALL ASSESSMENT** (provided in English, Czech, or Slovak):

### **Contribution**

The thesis deals with a very relevant topic, which is applicable both for monetary and macro-prudential policies, and their interactions. Since the outset of global financial crisis, this has become a hot subject of economic research.

The conclusions of the paper are a nice and interesting contribution to the existing literature. I appreciate the author's ability to relate her findings to the previous research papers. Personally, though, I would spend more time discussing the implications of the empirical findings for monetary policy. On the one hand, housing prices are shown to respond in a statistically significant way and intuitive direction to changes in the monetary policy stance. On the other hand, shocks to monetary policy have only a very limited contribution in the forecast error variance decomposition of the housing prices. Does it tell us something about the origins of the recent financial crisis? In particular, was the loose monetary policy of Fed indeed such an important contributor to the build-up of the housing bubble, as many people believe? What does this imply for the "leaning-against-the-wind" policy recommendation? These issues could be addressed during the defence.

### **Methods**

In the data section, a good description of the key data sources is provided and the data adjustments / transformations are transparently described (a minor comment: I would not call this "data manipulation" in possible future publications).

The methodology used in the paper is very modern and advanced (in fact so advanced that I leave its assessment to the advisor, who is a much bigger expert in this field than I am). Regarding this, I have only two questions that could be addressed by the student during the defence:

- (i) Is the large VAR really useful in the thesis? It seems that the results based on it are very uninformative, and the author in the end resorts to replacing it with the medium-size VAR when interpreting the results. Was it realistic to expect a different outcome in a set-up with so many variables, relatively short data sample and so much time-variation in the model?
- (ii) Is so much time-variation really needed in the model? Looking at the results, the impulse responses look fairly similar for different periods in most cases (if I disregard the uninformative impulse responses from the large VAR – see above). Wouldn't a much simpler estimation methodology deliver similar outcomes that would be easier to interpret?

But in any case, there was no doubt an important learning element in using the sophisticated methods, which I appreciate.

### **Literature**

The literature review in Chapter 2 covers a number of papers which is not extremely large. But importantly, it includes very recent contributions to the literature, is well balanced between DSGE models and VAR-based papers, and is easy to comprehend.

### **Manuscript form**

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The thesis has a logical structure, and is written in good English (a minor comment: the charts in section 5 should use collars or some other way to distinguish the individual variables more clearly; the legend should preferably use the same ordering of variables as the one shown in the chart).

## Summary and suggested questions for the discussion during the defense

Overall, I consider this an excellent thesis which exceeds the standard for the master degree and could be used as an essay in a dissertation thesis. After some additional work, I would probably be publishable in a refereed journal.

I recommend the thesis to be **accepted and graded as excellent (A)**. The committee may also consider nominating it for a distinction from the Director of IES FSV UK for an extraordinarily good master diploma thesis.

The suggested questions for the defense are:

- 1) Discuss the implications of your empirical findings for monetary policy. Do they tell us something about the origins of the recent financial crisis? In particular, was the loose monetary policy of Fed indeed such an important contributor to the build-up of the housing bubble, as many people believe, given their rather low contribution to residential prices in your FEVD? What does this imply for the "leaning-against-the-wind" policy recommendation?
- 2) Is the large VAR really useful in the thesis? Was it realistic to expect informative results of the estimations in a set-up with so many variables, relatively short data sample and so much time-variation in the model?
- 3) Is so much time-variation really needed in the model? Do your results show significantly different impulse responses for different periods? Wouldn't a much simpler estimation methodology deliver similar outcomes that would be easier to interpret?

## SUMMARY OF POINTS AWARDED (for details, see below):

CATEGORY	POINTS
Contribution (max. 30 points)	27
Methods (max. 30 points)	30
Literature (max. 20 points)	20
Manuscript Form (max. 20 points)	19
<b>TOTAL POINTS</b> (max. 100 points)	<b>96</b>
<b>GRADE</b> (A – B – C – D – E – F)	<b>A</b>

**NAME OF THE REFEREE: Tomáš Holub**

**DATE OF EVALUATION: 23 January 2018**

**Referee Signature**