Incorporating Financial Stability into Monetary Policy Framework: The Bank of Thailand's Experience

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Discussion

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Outline

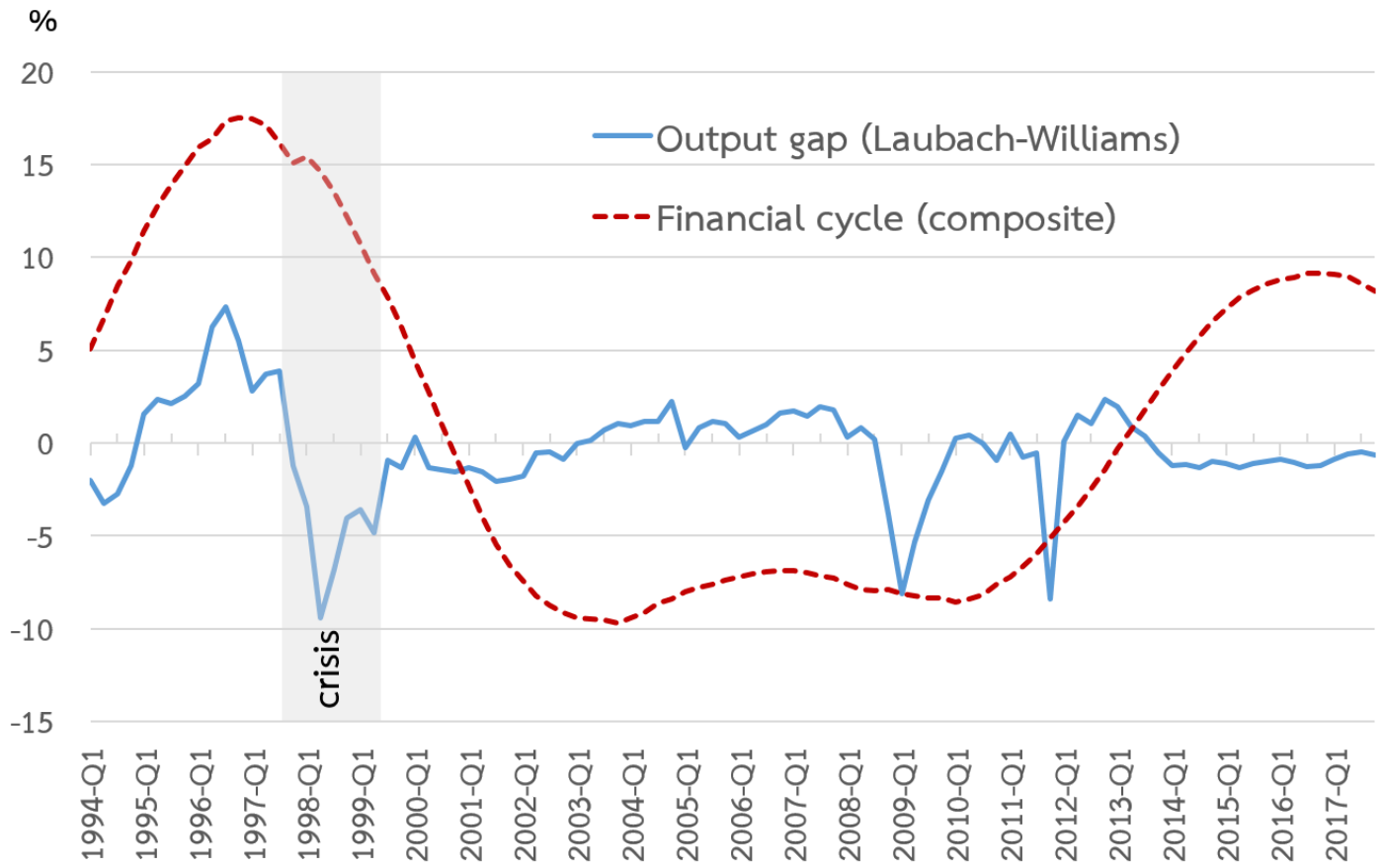
- Contribution to the literature
- Financial cycle
- The system of incorporating FS into monetary policy framework
- FS risk matrix
- Comments and suggestions

Contribution to the Literature

- Paper develops the system to incorporate financial stability into monetary policy framework

- The detailed documentation of Thailand's experience

Financial and Business Cycles in Thailand



FC: from 8 to 30 years
BC: 1.5 to 8 years

Financial cycle (FC) is a composite of the following 4 gaps. (CF filter, Drehman et al. (2012))

1. Credit gap
2. Credit to GDP gap
3. House Price Gap
4. Land Price Gap

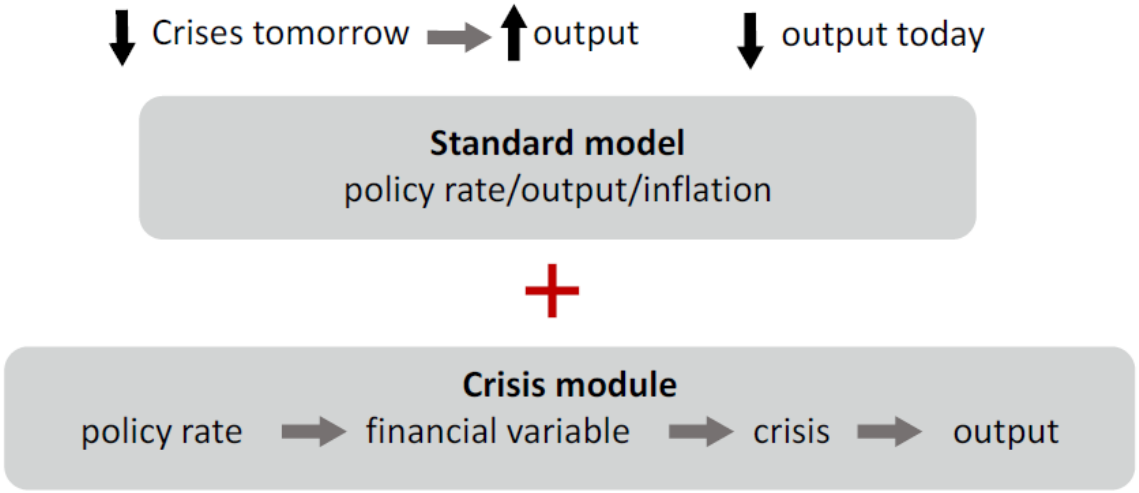
Analytical Framework: Price Stability and Financial Stability

The system of econometric models.

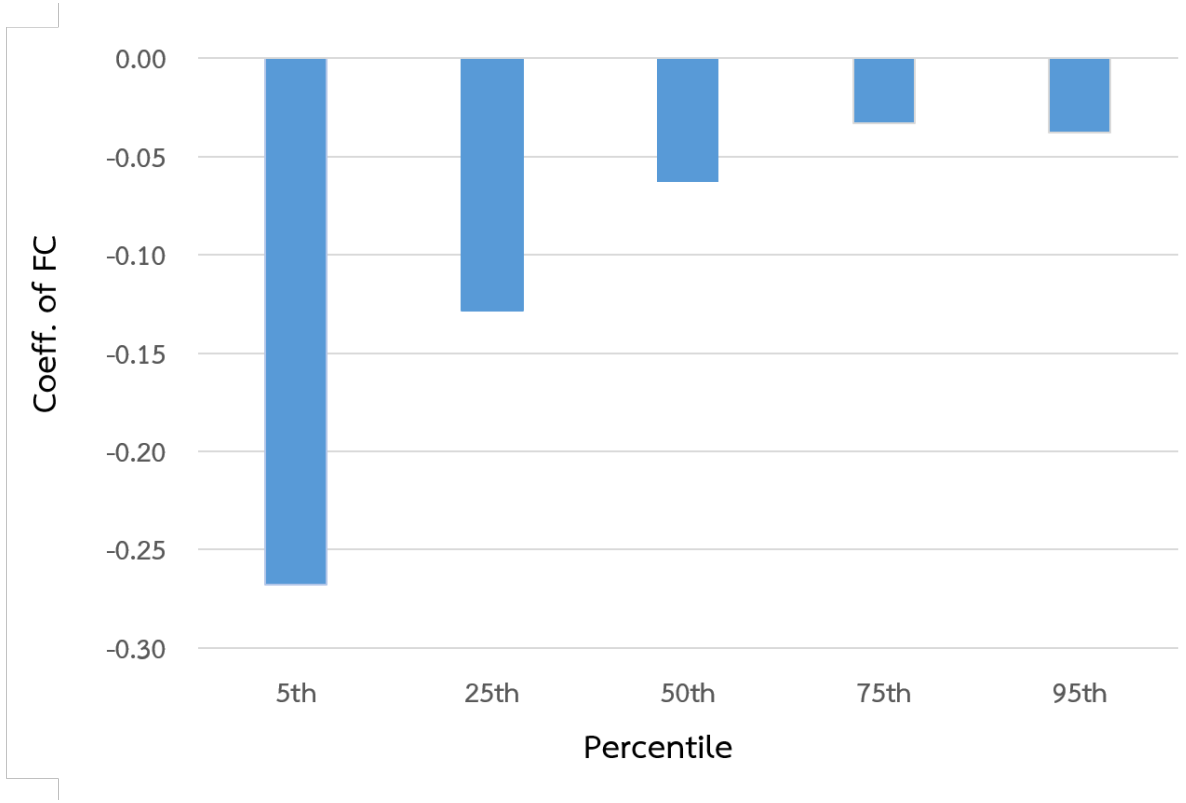
1. SVAR – Price stability (Inflation and short term output growth)

2. Quantile regression for panel data of 9 countries – Financial stability (The impact of FC on 1 year ahead GDP growth, long-term output growth)

3. Cross-country panel logistic regression - Financial stability (The probability of crisis)

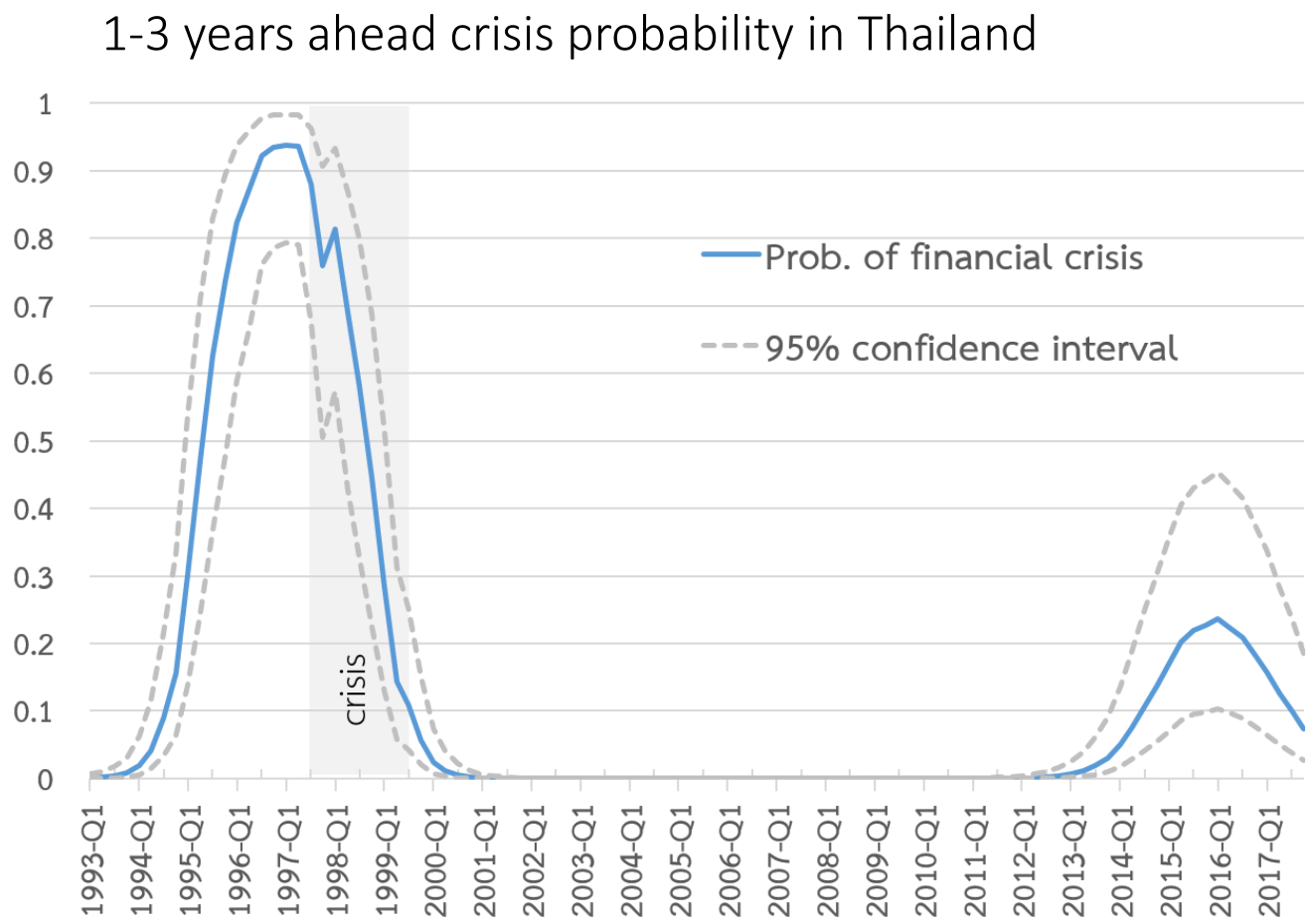


Panel Data Regression



- 9 countries: 2 emerging and 7 advanced
- Data sample: 1993Q1 – 2017Q4
- FC: credit to GDP ratio and property price
- Dependent variable: one year ahead GDP growth

Probability of Crisis

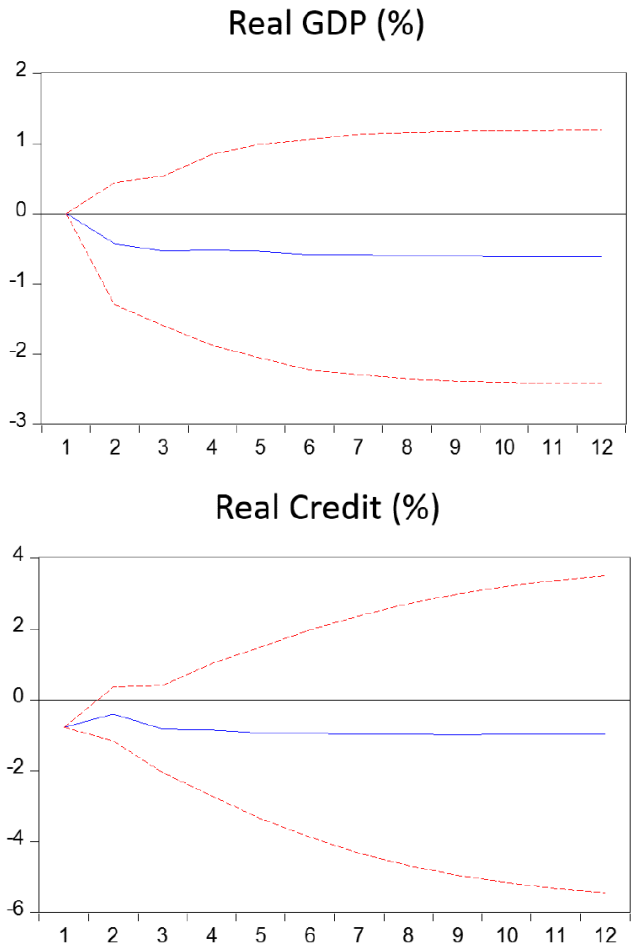


- Panel logistic regression
- FC: credit to GDP ratio and property price
- The probability of crisis is defined to be 1 to 3 years before crisis
- The optimal threshold is estimated to be 0.24

Core Model - SVAR

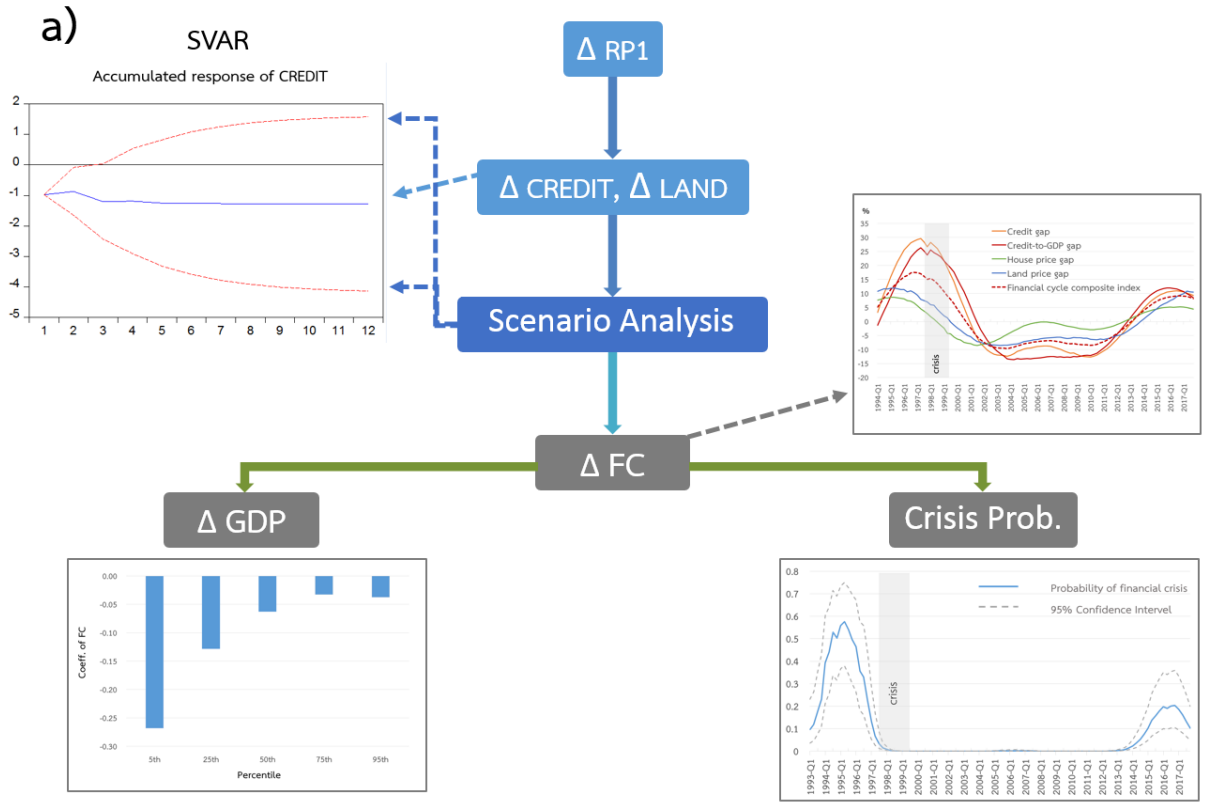
- The ordering of variables is the following: 1. Headline consumer price index, 2. Real GDP, 3. Policy rate, 4. Land price index, 5. Private credit
- 2 exogenous variables: 1. Dubai crude oil price and 2. REER
- Cholesky decomposition
- ±2SD interval shows the range of LAW policy
- Under the baseline scenario, credit growth is expected to decline from 5% to 4% during the next few years
- In the short run, monetary policy shock decreases GDP growth by 0.6% and increases inflation by 0.16% (“Prize puzzle”)

Effects of Policy on Real GDP Growth and Credit Growth



Analytical framework and the example of the quantified trade-off presented to MPC

a)



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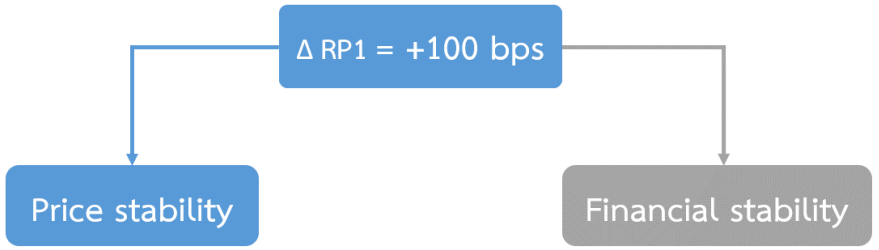

2018	
Δ GDP	Δ CPI
-0.60 %	0.16 %

Scenarios	2020	2020-2022
	Δ GDP	Δ Crisis Prob.
Effective LAW	+0.07 %	-4.62 %
Baseline	+0.01 %	-0.91 %
Ineffective LAW	-0.05 %	+3.62 %

FS risk matrix

2017q3		Type of Risk			
		[Under] pricing of risk	Risk appetite	Leverage	Vulnerability in debt serviceability and cushion
Entity	Household		7.00	4.00	6.00
	Corporate	7.00		4.00	6.00
	Bank + SFIs	7.00	5.00	3.00	3.67
	Non bank FIs		4.00	4.50	
Market	Real Estate	3.00	6.50	5.50	7.00
	Monetary and Financial Market	6.50	5.50		
	External	8.50		4.33	5.50

- 7 key agents and sectors of the economy
- Financial institutions are sub-categorized
- Set of indicators are based on the literature on an early warning system (IMF 2014, BIS 2017)
- 4 types of cyclical risk, which have direct implication on monetary policy
- The methodology in Cervantes et al. (2014) is adopted to calculate risk scores
- Scores from 0 to 10 represent the lowest to highest level of risk

Comments and Suggestions

- The need for model specifications, reporting of estimation results and technical appendixes
- Land price from SVAR simulation is used to calculate financial cycle for quantile regression and panel logistic regression, but the property price is used in latter two models
- Panel data quantile regression is used to calculate long run growth rate of Thai's GDP, which in its turn uses new calculated FC from SVAR. The issue is that characteristics of countries' financial markets are very different.
- "Prize puzzle" in SVAR is a result of poor specification of MP shock (see Bache and Leitemo 2008, Uribe 2018)

Thank You for Your Attention