

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

**IN THE NAME OF ALLAH THE MOST
GRACIOUS AND MOST MERCIFUL**



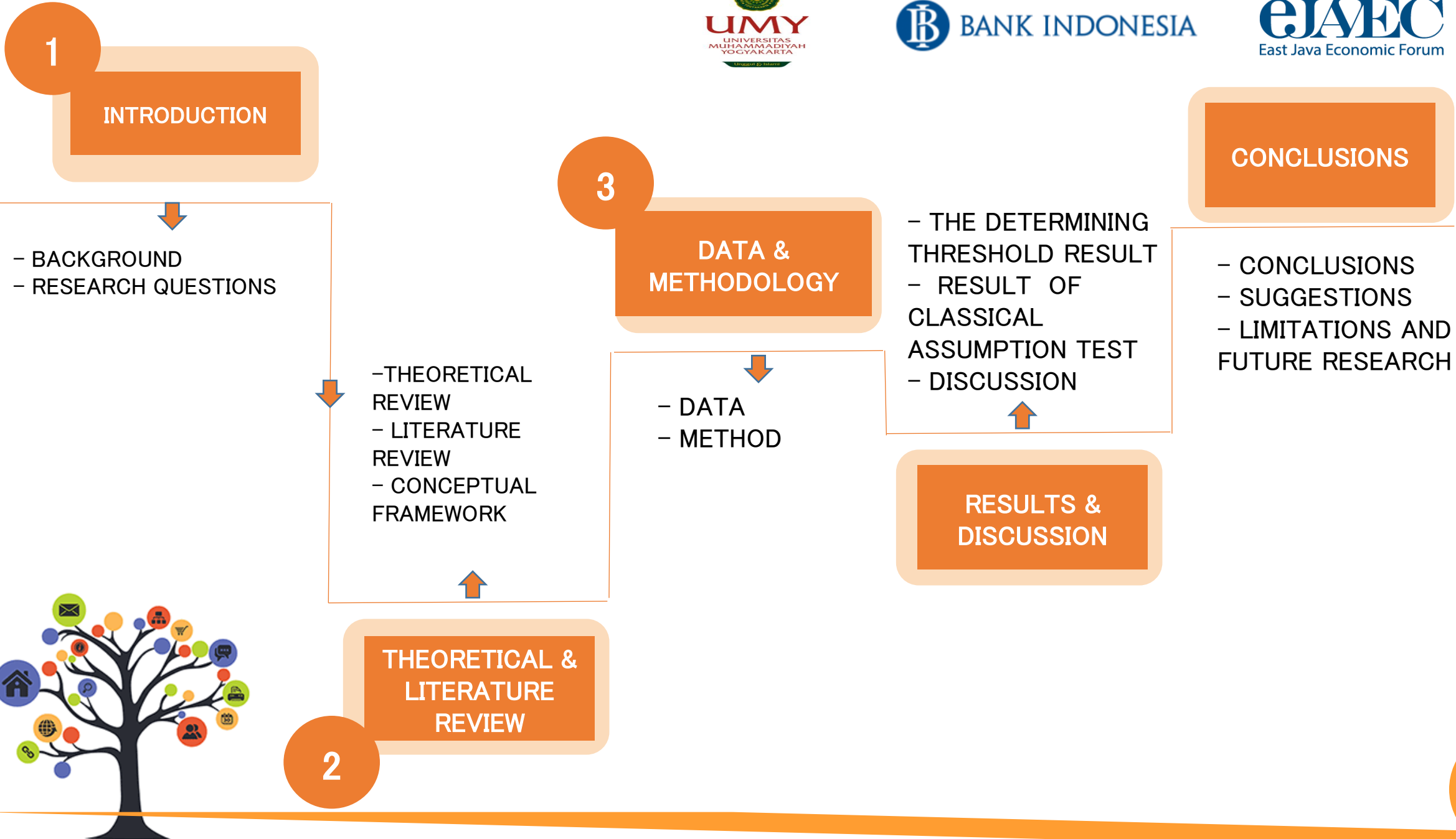
DETERMINANTS THE RESILIENCE OF BANKING SECTOR IN EAST JAVA

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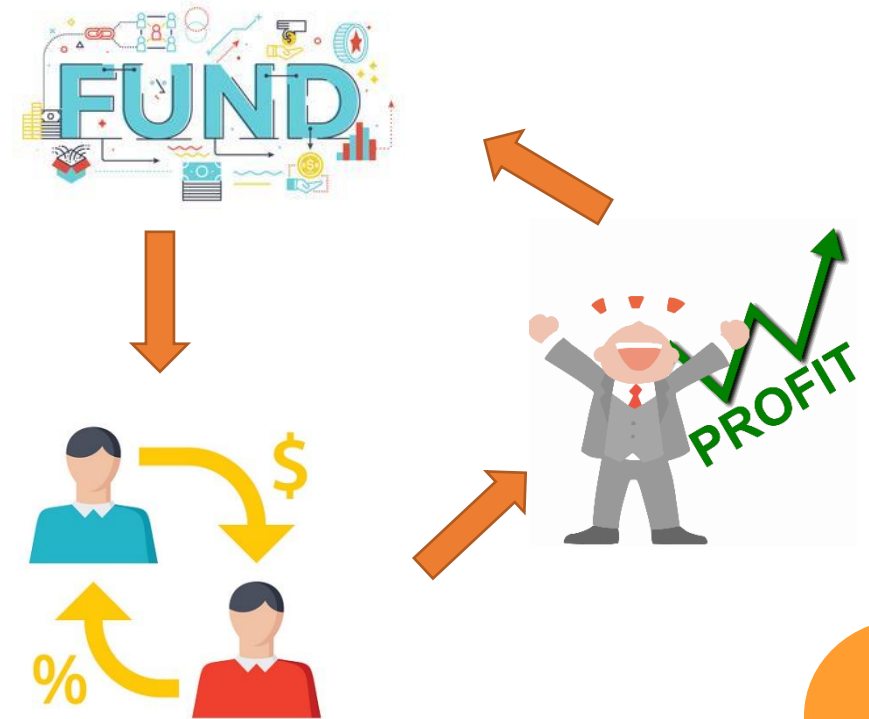
Ujang Nurdin

6th East Java Economic Forum
Surabaya, 26–27th November 2019

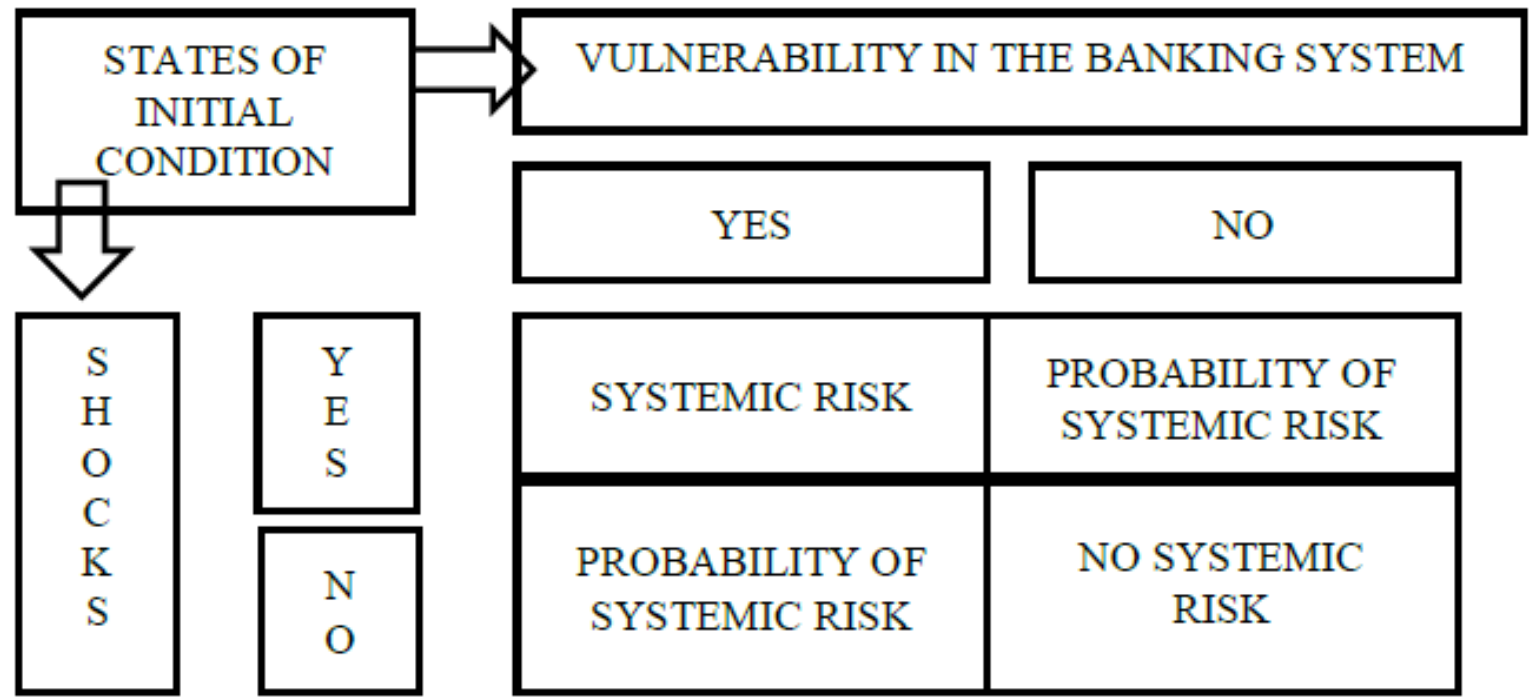


The macroeconomic environment influences the stability of the banking sector

The banking sector is defined as a business that conducts three main activities: funding, lending, and channeling profits.

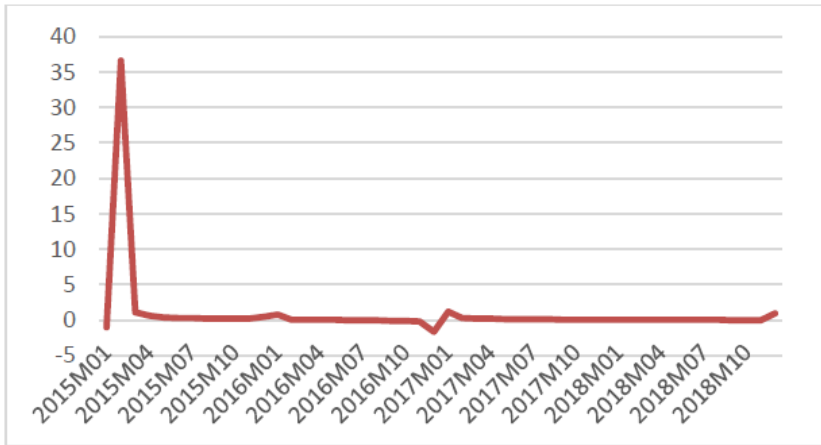


The Links between Shocks and Vulnerabilities in the Banking System

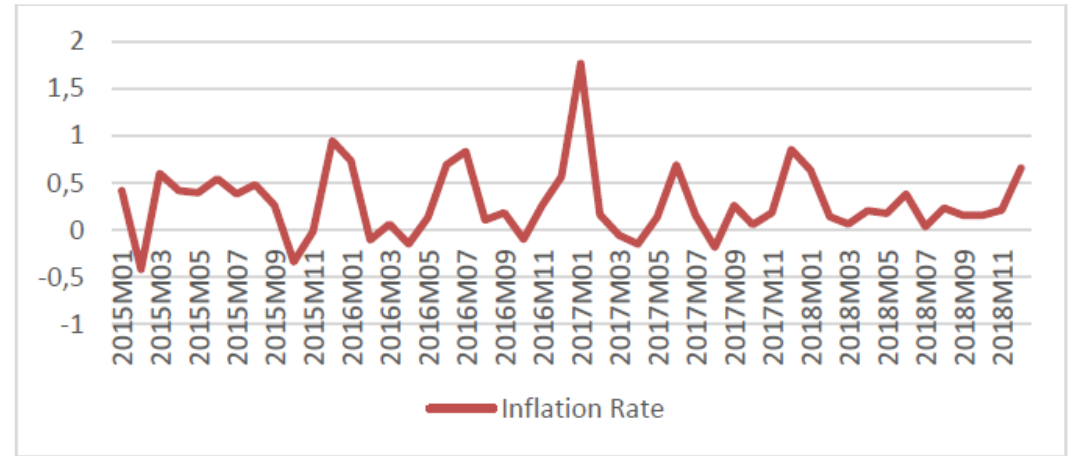


Source: Crossen et al. (2014)

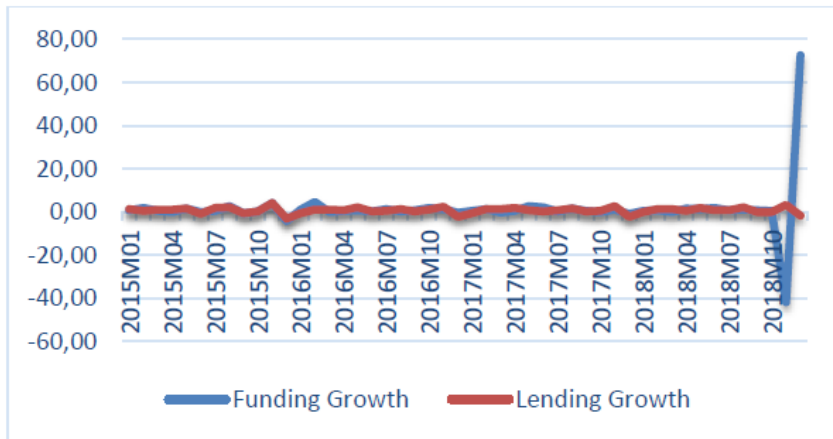
The vulnerability of the banking sector in East Java is affected by macroeconomic changes, given that it has close connectivity with other sectors in the economy through lending schemes



The performance of Net Exports in East Java Period January 2015 – Desember 2018
Source: Bank Indonesia (2018)



The Inflation Rate in Surabaya Period January 2015 to December 2018 (Monthly Basis)
Source: Bank Indonesia (2018)



The Funding and Lending Growth on Banking Sector in East Java
Source: Bank Indonesia (2018)

Given that the banking sector in East Java is Vulnerable to exogenous shocks. Exogenous shocks can spread and increase the vulnerability of the banking sector in the financial system.



RESEARCH QUESTION

WHAT DO MACROECONOMIC VARIABLES INFLUENCE THE RESILIENCE OF THE BANKING SECTOR IN EAST JAVA ?

SIGNIFICANCE

MEASURE THE LEVEL OF RESILIENCE ON BANKING SECTOR AND ANALYZE THE DETERMINANTS OF BANKING SECTOR RESILIENT IN EAST JAVA



VULNERABILITY THEORY

The likelihood of experiencing stress due to exogenous shocks

RESILIENCE THEORY

A system's ability to adapt and reorganize itself as a result of an unanticipated shock

BUSINESS CYCLE THEORY

Fluctuations in some macroeconomics variables.

COMPLEX ADAPTIVE SYSTEM

System as a complex of interacting components between a system and its environment

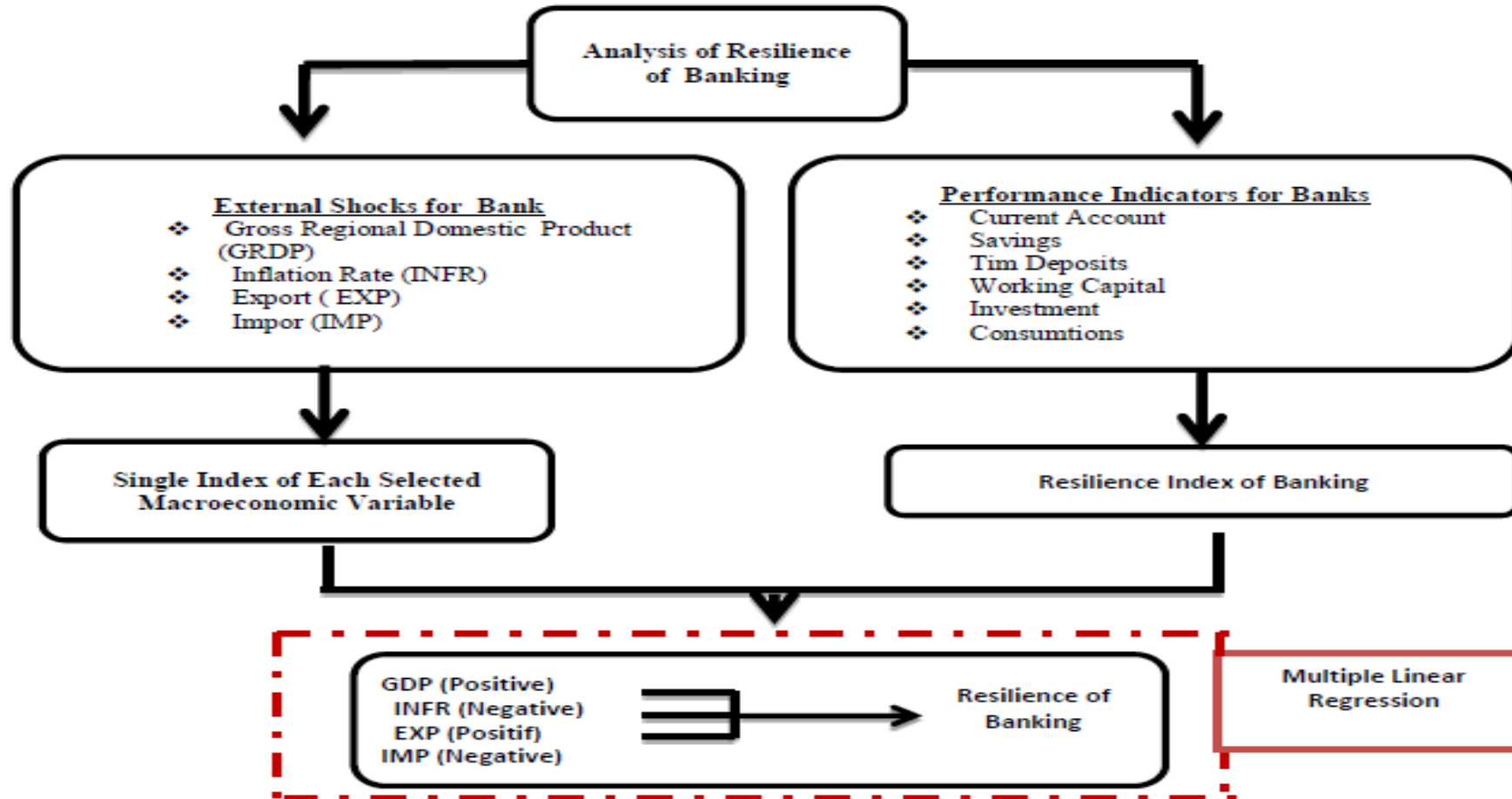
LITERATURE REVIEW

The main risks in the banking system are :

- 1 Credit (credit cycle (Allen and Saunders, 2002) and liquidity risks
- 2 A mismatch of balance sheets (Borio, 2010)
- 3 Funding constraints (Borio, 2004)

To manage risks in the banking system, credit risk and liquidity risk should be *linked with the rate of growth of a bank's aggregate balance sheets by which remains surplus* (high liquidity borrowers and short-term debt) (Adrian and Hyun, 2003; Cecchetti et. al, 2010; Tirole, 2011; Drehmann and Nikolaou, 2013).

RESEARCH FRAMEWORK



DATA

Data from January 2015- December 2018

A. Macroeconomic Variables

1. Gross Regional Domestic Bruto (GRDP)
2. Inflation Rate (INFR)
3. Export (EXP)
4. Import (IMP)

B. Banking Variables

1. Current Accounts
2. Savings
3. Time Deposit
4. Working Capital
5. Investment
6. Consumption

METHOD

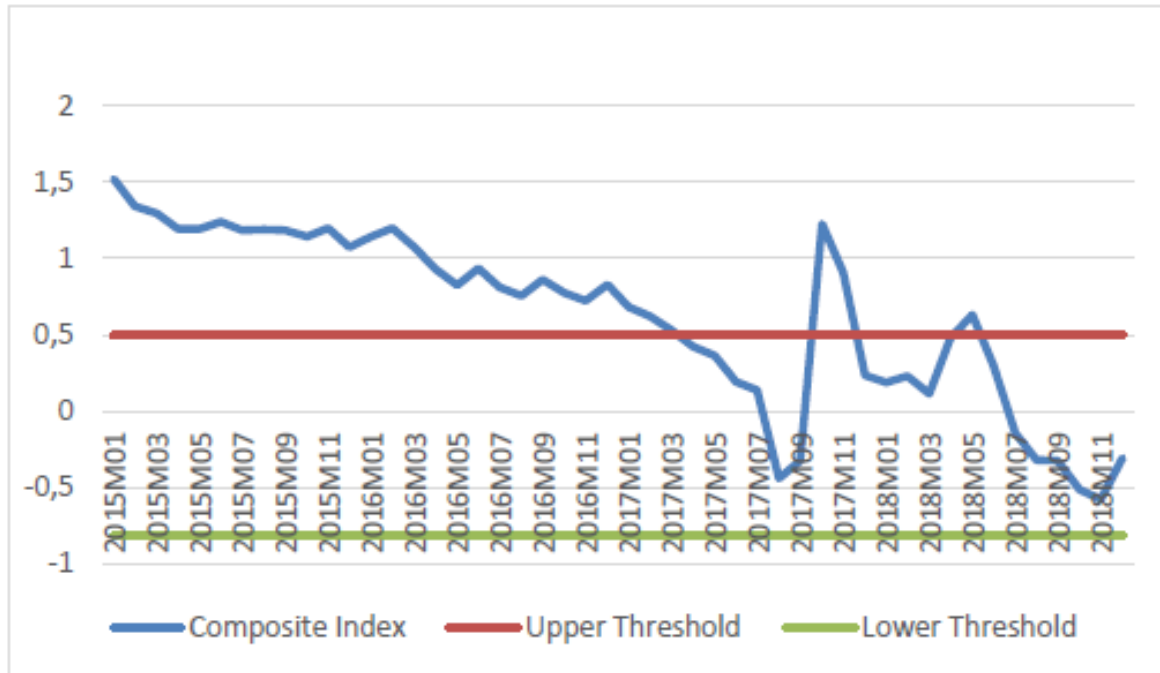
BUILDING RESILIENCE
INDEX

MULTIPLE LINIER
REGRESSION

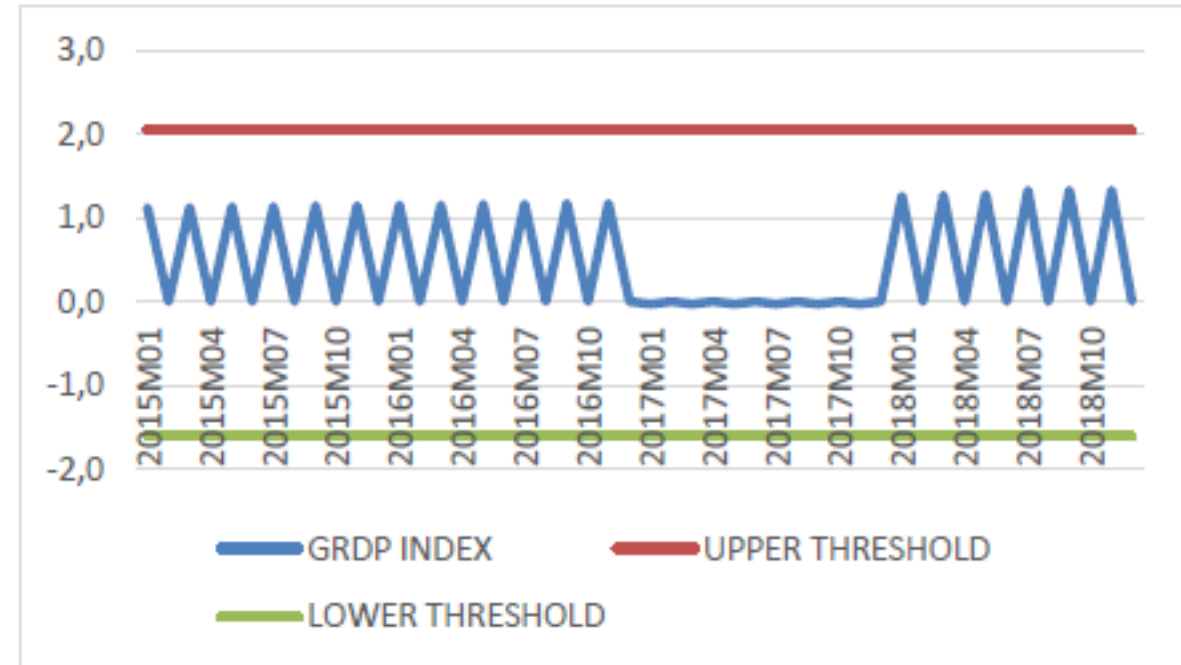
DATA SOURCES

BANK INDONESIA

RESULTS FOR RESILIENCE

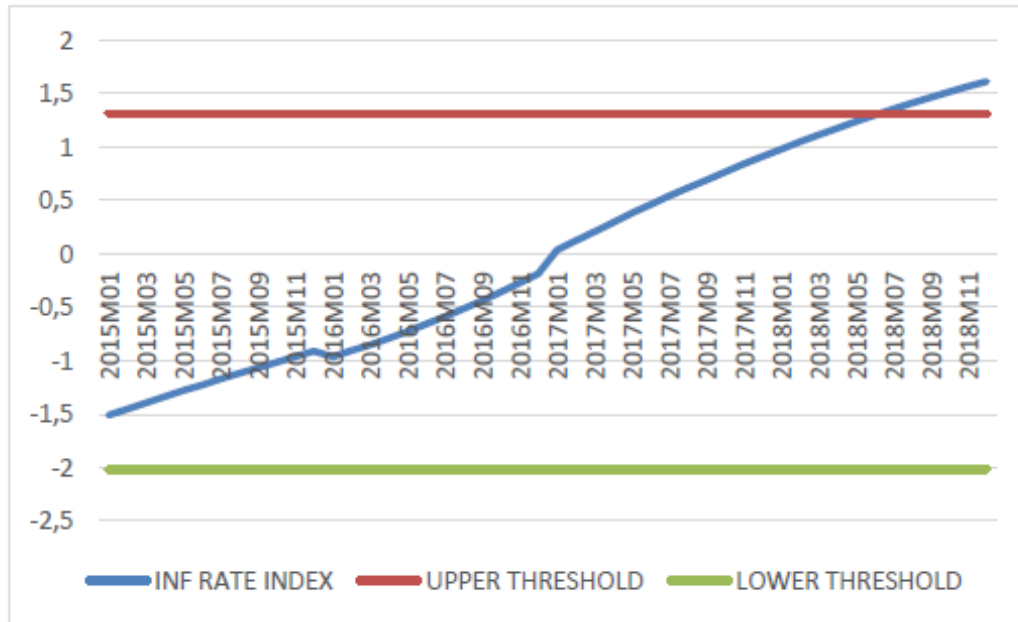


The Banking Resilience Index

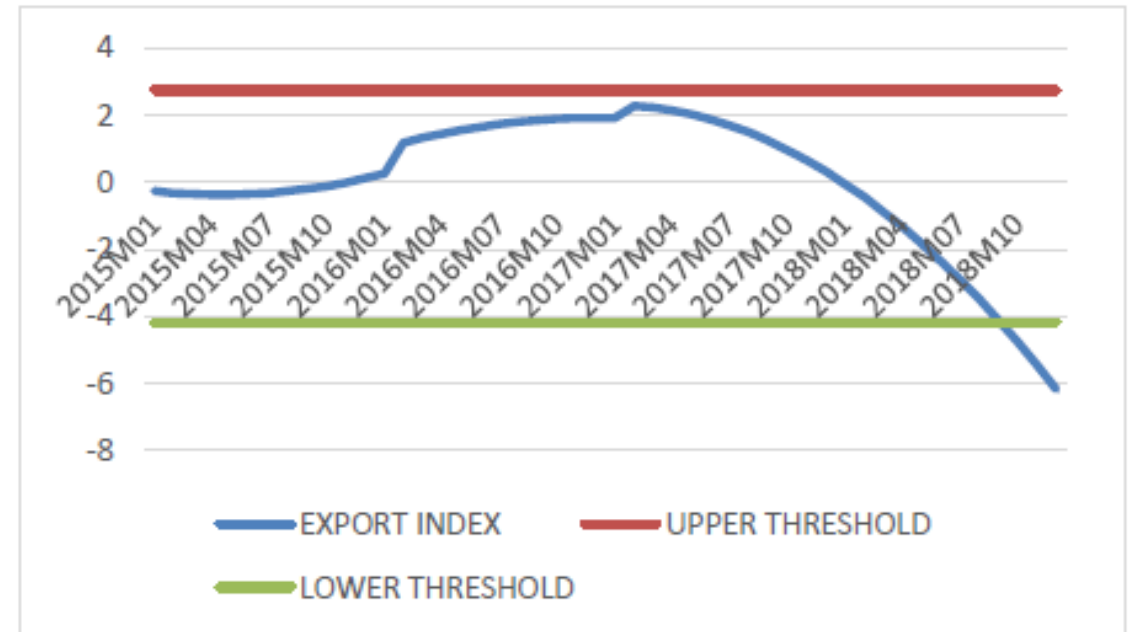


The Performance of Gross Regional Domestic Product in East Java, Period 2015– 2018 (Monthly Basis)

RESULTS FOR RESILIENCE



The Performance of Inflation in East Java, Period 2015–2018



The Performance of Export in East Java, Period 2015–2018

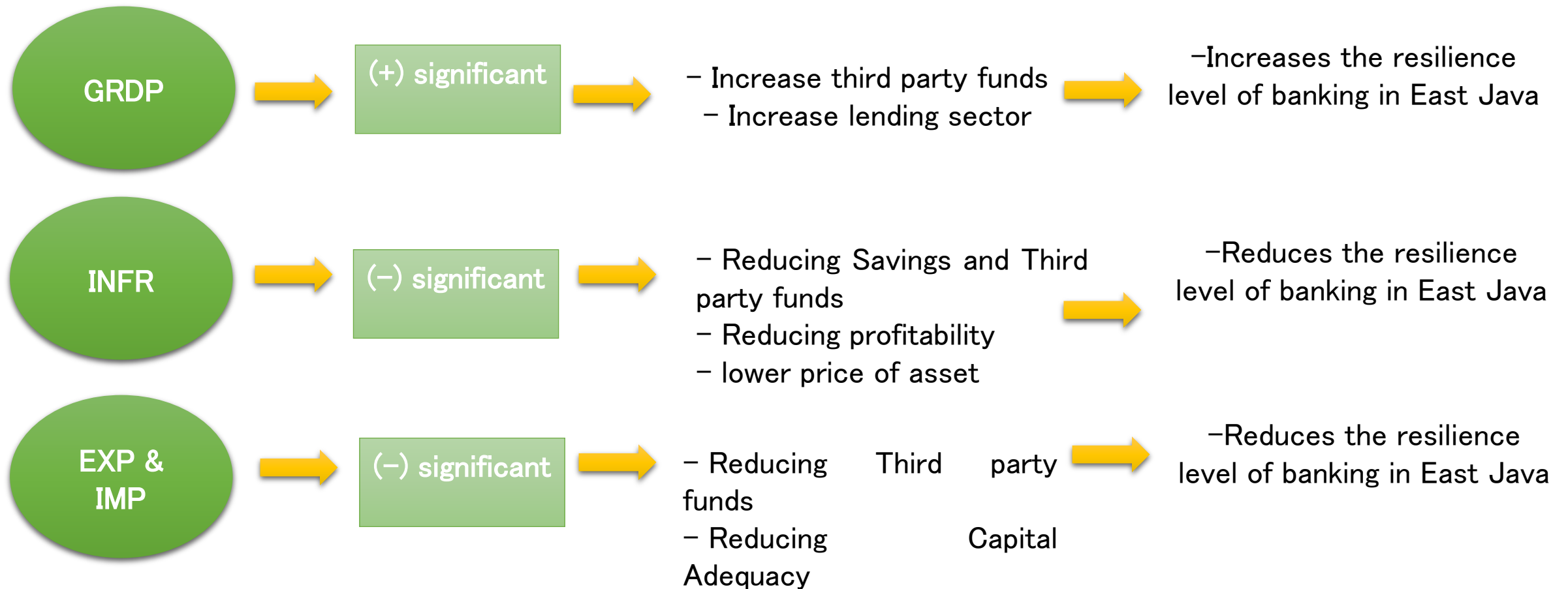
Results – Classical Assumption Tests

NO	TESTING INSTRUMENTS	RESULT	REMARK
1	Normality	YES	JB 0,23 > 0,05 JB 0,88 > 0,05
2	Autocorrelation	NO	Prob*R 0,8806 > 0,05 Prob*R 0,8616 > 0,05
3	Heterocedasticity	NO	Prob*R 0,2477 > 0,05 Prob*R 0,3284 > 0,05
4	Multicollinerity	NO	Correlation Coefficient < 0,08

HYPOTHESES

F Test	T Test	DETERMINATION TEST
Prob (F–statistic) 0,000000 < 0,05	<ul style="list-style-type: none"> ➤ GRDP (+) significant ➤ INFR (-) significant ➤ EXP (-) significant ➤ IMP (-) significant 	R–Square : 97 %

RESULTS OF THE INFLUENCE MACROECONOMIC VARIABELS FOR RESILIENCE OF BANKING SECTOR IN EAST JAVA



CONCLUSIONS

RESEARCH QUESTION	VARIABLES	HYPOTHESIS	RESULT	REMARK
WHAT DO MACROECONOMIC VARIABLES INFLUENCE THE RESILIENCE OF THE BANKING SECTOR IN EAST JAVA ?	GRDP	+ Significant	+ Significant	Confirmed (Saving and Investment Channels)
	INFR	- Significant	- Significant	Confirmed (Puchasing Power)
	EXP	+ Significant	- Significant	Not Confirmed (Market Risk)
	IMP	- Significant	- Significant	Confirmed (Market Risk)

SUGGESTIONS



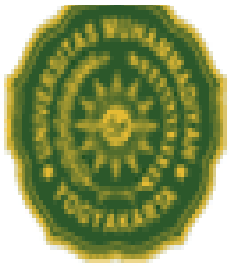
- Monitoring inflation rate to what extent matching with fundamental
- Promoting exports and maintaining imports at level which support sustainable economic growth
- Maintaining sustainable economic growth

LIMITATIONS AND FUTURE RESEARCH



- Need more macroeconomic variables to further capture the determinants of banking sector resilient
- Need to include more complex micro banking variables for describing in details on banking resilient
- Need to add more data series capturing normal and crisis periods
- Need to detail out steps for index development and its validation criteria.

Thank You



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