

PIER-CMRI COLLABORATION

MACRO-FINANCE RESEARCH FOR THAILAND

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1 OBJECTIVES

Collaboration between Puey Ungphakorn Institute for Economic Research (PIER) and Thailand Capital Market Research Institute (CMRI) under Thailand Capital Market Development Fund (CMDf) is aimed to promote the creation of knowledge and understanding that encompass macroeconomics and capital market in various aspects for Thailand

สถาบันวิจัยเศรษฐกิจป๋วย อึ๊งภากรณ์



CMRI
Thailand Capital Market
Research Institute

Research workshop in Macro-Finance is the first step

2 **MACRO-FINANCE : RATIONALE & AGENDA**

WHY MACRO-FINANCE? : THE NEED TO BETTER UNDERSTAND THE INTERPLAY IN THAILAND

Macro \Rightarrow Finance

- capital market has been gaining more and more importance & momentum in Thai macroeconomy
- macro policy concerns about real economy and financial sector & capital market drive real sector

Macro \Leftarrow Finance

- capital market and financial sector impact people at all levels both present and future
- complex decisions & activities in capital markets make macro policy complicated

2.1 Agenda : Macro & Monetary Policy Influence Capital Market & Financial Sector

MACRO \Rightarrow FINANCE

Traditional view needs more research for better understanding of new financial landscape. Examples of research agenda risen from new landscape as well as key pending issues, for example

- **digital currency & digital asset** create new connectedness and channel of risk transfer : *various dichotomies*
 - digital vs traditional
 - local vs international
 - official vs shadow
- with **dual role of macro stabilizer & bank regulator**, balancing the systemic risk and financial opportunities calls for more researches in Thailand
 - securitization
 - role of banks in digital assets
 - risk transfer & transfer pricing b/w bank and capital market

2.2 Agenda : Capital Market & Financial Sector Influence Macro Policy

FINANCE \Rightarrow MACRO

Understanding complexities improves policy options.

- micro-foundation modeling of economic agents
- insights from modern corporate finance and asset pricing

Become essential to understand macroeconomic phenomena and to design the policies, **particularly the adaptation to Thai macroeconomic environment and capital market context**

Few selections of topics in macro-finance

1. Extension of Asset Pricing Models
2. Information Sensitivity and Financial Crises
3. Financial Friction from Conflicts of Interest : the role of law & civil society on capital market and macroeconomic variables

2.3 Example : Extensions of Asset Pricing Models



Macro-finance addresses the link between asset prices and economic fluctuations ... macro-finance models can fundamentally alter macroeconomics.

Cochrane (2017)

Various macro-finance models put the time-varying risk premiums and risk-bearing capacity at the center of explanation on economic recession and downplay the classical macroeconomic variables such as interest rate and intertemporal substitution. Examples are following

- Habit
- Recursive Utility
- Long-Run Risks
- Leverage and Balance Sheets
- Ambiguity Aversion
- Behavioral Finance and Mistakes

Research on similar models **with Thai data** would enhance our understanding of Thai capital market, investors and macroeconomy

2.4 Example : Information Sensitivity and Financial Crises

Economic crises are almost always led by financial crises, which in turn are almost always about short-term debt

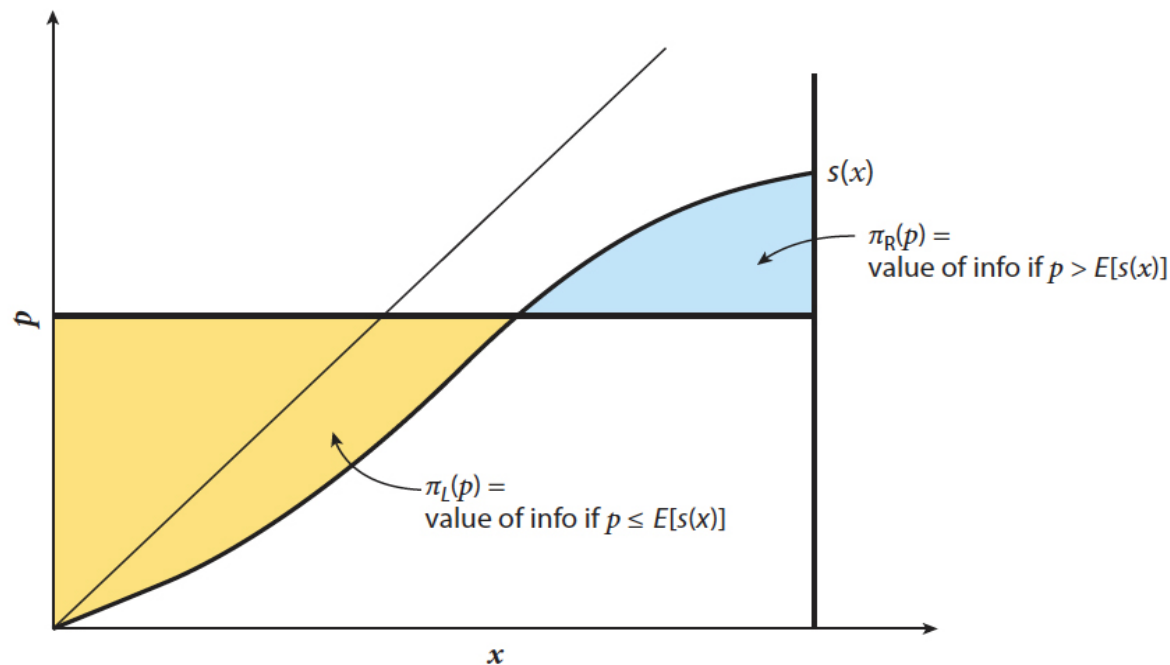
Recent studies led by Gary Gorton and Bengt Holmstrom look at financial crises as information phenomenon of short-term debt and vanishing of collateral market before crisis; Dang, Gorton, Holmstrom (2015, 2020)

Key ideas are following

- debt is the least information sensitive : the rationale of its widespread acceptance
- debt is key source of liquidity in credit and capital market
- Debt-on-Debt, debt with debt collateral in various forms, is the defining feature of banking

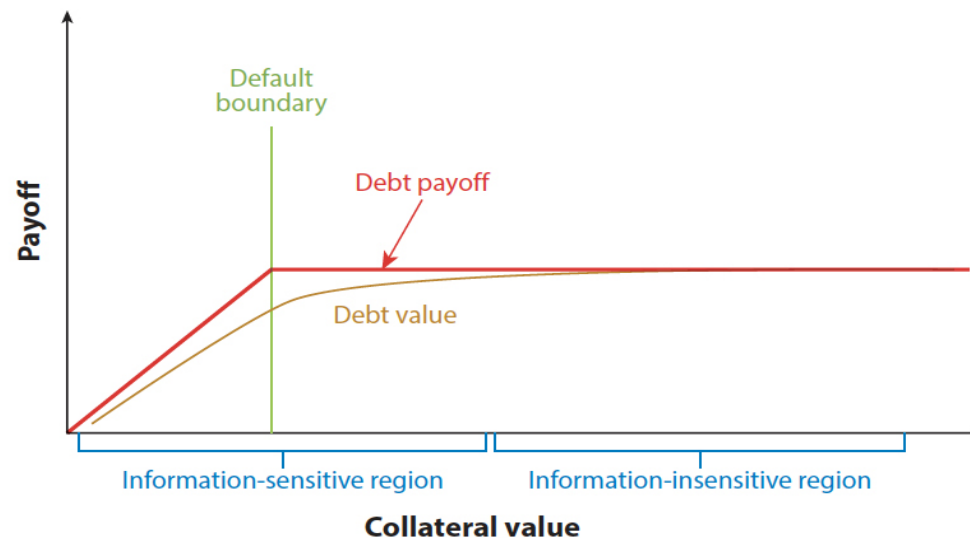
In usual time, agents in the market trust each other and no incentive to verify the value of debt and its collateral → debt is information insensitive

However, when bad news on macroeconomics hit the market, agents have incentive to acquire private information on the value of debt and collateral, hence make debt **information sensitive**.



Source : Dang, Gorton, Holmstrom (2015)

When widespread information asymmetry occurs, trust meltdowns and hence markets disappear → systemic deterioration of debt and collateral value, consequently lead to financial crisis.



Source : Dang, Gorton, Holmstrom (2020)

Insight from **Information Sensitivity and Financial Crises** deserves further researches in Thai context¹ in order to **prevent a future crisis** as well as **the functions of capital market on macroprudential role** (i.e. Chousakos, Gorton and Ordóñez (2020))

¹including macroeconomic environment, activities and agents in capital market and stakeholders in Thai financial landscape

2.5 Example : Financial Friction from Conflicts of Interest

Ruengsrichaiya (2012) studies the role of law and civil society (investor activism) that affect the capital market and macroeconomic variables. The paper does

- analyze effects of expropriation by controlling shareholder on outside shareholder
- show theoretical results on how different key parameters of an economy would determine the capital market outcome and key macroeconomic variables
- **open room for empirical implementation, particularly from Thai data**, to illustrate the quantitative results

Based on heterogenous-agents, continuous-time stochastic dynamic general equilibrium (DSGE) model, summaries of the key results are following

OWNERSHIP (α) : Degree of internalization of macro inefficiencies

When Ownership Increase ($\alpha \uparrow$)	This paper	AW (2008)
Weighted Productivity (\tilde{h})	\uparrow	(constant)
Investment (i)	\uparrow	\downarrow
Risk Free Rate (r)	\uparrow	\downarrow
Risky Asset Price (μ_P)	\uparrow	-
Risky Asset Volatility (σ_P)	\uparrow	\downarrow
Expected Return ($\mu_P + (D/P)$)	\uparrow	\downarrow
Risk Premium (λ)	\uparrow	\downarrow

Source : Ruengsrichaiya (2012)

Note : This paper extends previous study and compare the results with Albuquerque and Wang (2008) (AW (2008))

LAW (η) : Degree of law and government policy to protect minority shareholders

When Investor Protection increases ($\eta \uparrow$)	This paper	AW (2008)
Weighted Productivity (\tilde{h})	\downarrow	(constant)
Investment (i)	\downarrow	\downarrow
Risk Free Rate (r)	\downarrow	\downarrow
Risky Asset Price (μ_P)	\downarrow	-
Risky Asset Volatility (σ_P)	\downarrow	\downarrow
Risk Premium (λ)	\downarrow	\downarrow
Expected Return ($\mu_P + (D/P)$)	\downarrow	\downarrow
Dividend (D) (<i>Payout vs Yield</i>)	\uparrow	\uparrow / \downarrow

PRIVATE BENEFIT FROM EMPIRE BUILDING DECISION (ν, β) : Degree of investor activism and quality of internal governance mechanism

When Private Benefit of Empire Buildings Decreases (Better Activism and Internal Governance) ($\nu \downarrow, \beta \uparrow$)	Results
Weighted Productivity (\tilde{h})	\uparrow
Investment (i)	\uparrow
Risk Free Rate (r)	\uparrow
Risky Asset Price (μ_P)	\uparrow
Risky Asset Volatility (σ_P)	\uparrow
Expected Return ($\mu_P + (D/P)$)	\uparrow
Risk Premium (λ)	\uparrow

Source : Ruengsrichaiya (2012)

3 SUPPORTING MACRO-FINANCE RESEARCH FOR THAILAND



CMRI provide supports to achieve the 4th objective

- Research Grants (www.cmdf.or.th & www.cmri.or.th)
- Data
- Seminar, Academic Network and Collaboration

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