Mapping Thailand's Financial Landscape:
A Perspective through Balance Sheet Linkages and Contagion

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Financial Interconnectedness \(\rightarrow\) Increase + More Complex

1. Study on all players’ balance sheets relationships

2. Financial Landscape

Bank \(\leftrightarrow\) Non-Bank

3. Stress-test on network model of all relationships
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With emphasis on size of each asset and liability in each balance sheet.

In multi-currency items will show not only effect of linkage in fund flow but also in currency flow.
On size of balance sheets of all players, some numbers are quite different from general beliefs:

- NFC: liabilities ~ 50 Tri. Baht vs. ~18 Tri. Baht + 3 Tri. Baht
- ODC: asset + liabilities ~ 30 Tri. Baht vs. ~16 Tri. Baht
- OFC: asset + liabilities ~ 16 Tri. Baht vs. ~5 Tri. Baht

What’s the difference?

From trade activities?? Real assets??

What is the reason for OFC’s differences?
5

- Transition of funding source usages from debt and loan to equity and investment funds
- Increase in importance of capital market on economic growth / condition compared to that of banking and debenture markets

Policy that affect capital market will be more critical
Roles of each sector in shock transmission mechanisms

- **Shock Generators** ➔ Sectors with equities and short-term instrument on liability side

- **Shock absorbers** ➔ Sectors with EQ. + short-term instruments on asset side

- Combined with table 1 ➔ will identify these two groups of players and will support article’s figure 3.9 + 3.10
When focus to individual unit’s balance sheet in all sub-sector show more detail information that can be further analyzed and could be used to compared to the facts.
On Stress Testing

Shocks → 3 Channels of contagion → 2 shock amplification effects → Losses of assets value
I. Channels of contagion:

1. Market Channel:

  Price  
  Varies by  
  Liquidity
I. Channels of contagion:

2. Liability and ownership channel:

- Shocks
- Loss of asset value
- Insolvent \rightarrow Sale of assets to pay claims
- Value of equity
I. Channel of contagion:

3. Reverse liquidity channel:

- **Direct**
  - Withdraw liquidity back from borrowers / Investment destinations

- **Indirect**
  - Liquidity shocks to borrowers or Investment destinations
  - Sale of assets to cover liquidity need

- **Shocks** → **Loss of asset value** → **Insolvent**
II. Amplification Effects:

1. Panic sells:

- Asset Price (2)
- Shock (1)
- Informed Sale
- Uninformed Sale (3)
- Asset Price (4)
- Shock effects (5)
- Negative info

Expectation

Actions
II. Amplification Effects:

2. Bank Deleveraging:

Shock (1) → Asset Price (2) → Bank’s Equity (3) → Total Liability / Equity

Asset Price (5) ↓

Deleverage = sell of assets

Deleverage or raise of equity (4)
In sum:

- With assumptions on parameters of the model, many findings are observed. However, it is interesting to see how sensitive each parameter are on the results.
Applications:

- Sensitivity analysis on changes in input parameters to the outcomes
- Policy application to stabilize, correct and manage the financial system based on financial landscape, composition, channels and amplifier parameters.
Future considerations:

Linkage on multiple currencies assets and liabilities.