

## Academic Article

# How Financial Engineering, Corporate Governance, and Human Capital Management Help Firms to Survive During the Financial Crisis? A Case Study of CitiBank, N.A. Thailand

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### Abstract

For more than 2 decades after the 1997 Asian financial crisis, there are still discussions and arguments about the causes and remedies of this crisis. The author gathered data and information from international and domestic online documents and conducted in-depth interviews with related experts in order to answer the question: what are key factors for firms' survival during the Asian financial crisis? Using the case of CitiBank N.A. Thailand, the author found that crafting firm competencies, especially promoting its financial engineering governance (e.g., designing effective financial instrument and engineering safety system) could help CitiBank N.A. Thailand survive during the crisis. Furthermore, investing in its human capital management abilities (e.g., initiating talent management and development programs) and building a learning organization are important strategies that helped CitiBank N.A. Thailand handle the crisis and gained a competitive advantage. Lastly, the author offers some recommendations for regulatory agencies like Bank of Thailand (BOT) to oversee and enhance the performance of Thailand's financial institutions.

**Keywords:** financial engineering, corporate governance, human capital management, CitiBank N.A. Thailand, financial crisis

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## 1. Introduction

It has been known that Asian economies have come a long way since 1997 in promoting economic and financial resiliency. We see a region wide move toward a more flexible exchange rate regime, with a disciplined framework in the conduct of monetary and fiscal policies. Take into consideration the importance of financial engineering governance, as for the financial sector, the framework of policy has moved toward risk-based supervision, to an adherence to international standards, and to undertakings of formal financial sector assessments under the Financial Sector Assessment Program (FSAP). The macroeconomic policies also become more flexible, yet proactive, in dealing with changes in the market conditions and practices. When it comes to the change and risk management, a traditional fiscal-monetary policy combination has been augmented by appropriate prudential measures of financial institutions.

According to the financial dilemma, the author has seen plenty of similarities in the underlying root causes. Because of the crisis's global scale and its severity, this time around we have seen unprecedented efforts taking at the national, regional, and international levels. To keep abreast of information and intelligent society, a decade after the 1997 Asian financial crisis, emerging markets took less vulnerable to financial disturbances. Emerging markets, particularly in Asia, had to confront with heightened uncertainty. The emerging markets' dilemma is that, on the one hand, they have reaped the benefits of globalization and taken advantage of lower cost labor markets and access larger and growing markets, and on the other hand, they are still concerned about economic recessions and recurring financial crises. This, of course, necessitates that we have to be very focused on risk management.<sup>1</sup> It is not surprisingly that, after the 1997 crisis, we saw new laws and procedures, such as credit bureaus, have been put in place to nurture the nation's financial system capacity and to prevent a future financial crisis.

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<sup>1</sup> Adapted and Remarkd by Dr. Wirathai Santiprapom, Bank of Thailand's Governor, on Combating Global Financial Crisis: Role of International Cooperation at the HKMA Distinguished lecture 16 December 2018, Hong Kong.

## 2. Global Economic and Financial Crises: An Overview

Each of the global financial crises had its own causes and resulted in changes and reforms at the national and international levels. It served as a trigger for international cooperation aiming at promoting global financial stability and prosperity. In other words, the crises can help nations and global citizens become more and more interconnected.

The author employed the systematic theory to explain how international cooperation is one of the first best solutions that can solve the global financial crises. The International Monetary Fund (IMF)'s Short-term Liquidity Facility, for example, is somewhat similar to swap lines extended among central banks to fellow nation members that do not call for typical IMF-supported adjustment programs. Emerging markets have been proponents of this facility for several years, but the IMF has previously been reluctant to endorse it due to fear of moral hazard.

Many people have been quick to point out that the limited impact of the current crisis on Thailand's financial system, compared to the crisis which hit Asia over a decade ago, is attributable to differences in the causes of the crises and notable structural changes in the Thai financial system. Many have pointed to excess, specifically excessive credit, excessive leverage and excessive short-term funding, as the main reason behind the current crisis. As the value of the excessive holdings of sub-prime assets by the United States (U.S.) and European banks collapsed as U.S. house prices tumbled, financial evaporated, first between banks and then to the real economy. Leveraging in the Thai economy has remained low. A conservative approach toward capital structure by both corporate and banks, another lesson from 1997, has kept debt-to-equity ratios in corporate and loan-to-deposit ratios in banks low, preventing a sudden deterioration in their financial and liquidity positions respectively (Zestos, 2016).

In addition, a conservative approach on the asset side in the run-up to the current financial turmoil meant that banks divested their exposures to foreign assets early on, with current exposure to foreign investments standing at 1.2 per cent of total assets, all of which have been fully provisioned for. This low leverage is also reflected on the liability side of bank's balance sheets, with banks relying overwhelmingly on a broad base of retail deposits, reducing the banking system's vulnerability to any drying up of short-term financing, which has posed a problem in

many countries. Furthermore, the blanket guarantee on bank deposits has prevented panic among domestic retail depositors, minimizing the risk of a bank run.

### 3. Thailand's Economic and Financial Crises and Causes

There have been some notorious economic and financial crises in Thailand dating back to 1980s. Each of the crises and its causes can be summarize as follows (King, 2001).

3.1 The bankruptcy of sub-prime was taken place since 1980s in which had been accumulated distinctly by means of Bangkok International Banking Facilities (BIBF) in June 1993. Its starters were happened bubble explosion in touch with several businesses since 1995. Also, its land and properties asset were shortfall and being in stagflation price of production due to lag off consumers and buyer enough toward suppliers in which had led to Nonperforming Assets (NPAs). Therefore, common stock limited company had loaned for borrowers which had been stemming and shut up 42 institutions in September 1997 as well as 56 institutions at the same years.

3.2 Excessive current balance deficit was a long-term problem in Thailand. Additionally, continuous current balance deficit was the impetus from 8% of GDP in 1995 to 7.9% of GDP in 1996. In addition, country's exports declined from 23.6% in 1995 toward 0% in 1996.

3.3 Out bound debt was considerable value having compared of higher interest rate and free financial trade area in which had showed Foreign Direct Investment ratio (FDIs) in Thailand overwhelming in 1997. Obviously, public debt was a large downside risk stemming approximately 55.5% of GDP in that was more than private debt till \$71.7 billion.

3.4 A failure of exchange rate policy by Bank of Thailand (BOT) led to the degradation of Baht currency exchange. Specifically, besides economic defects, the fixed exchange currency was corporate sector so as to be economic development stability while the Baht value was more disentangle that authentic interpretation value. Furthermore, Thai currency basket had still remained American currency dollar higher toward 80% in which was risk to be attacked in this weak point. At the simultaneous time, hedge fund and financial speculators had come to be visiting a speculation of financial and capital market from Baht currency since February 1997 to May 1997. To be protection Baht currency, BOT had remedied by means of Baht buying

in place of U.S. dollar currency higher authentic value. Finally, BOT had surrendered for financial speculators in which had damaged excessive currency Baht so much.

5.5 Another factor includes the political uncertainty of Thailand. Since a military coup in 2014, the nation has faced with rising political protests and riots, international sanctions, and a sinking economy. The coronavirus 2019 disease (COVID-19) pandemic has also created both a public health crisis and an economic crisis in Thailand.

While it is important to ensure that past problems are not repeated, we need to anticipate new problems as they arise. For example, as the main fallout from the global slowdown is felt by the real sector, both through the slowdown in exports and a decline in tourism receipts, and continued domestic political troubles prevents any substantial growth in domestic demand, the financial system is likely to remain vulnerable.

These factors may pose an indirect risk to financial system by gradually weakening the assets side of banks as borrowers face tighter conditions and increasing difficulty in serving their loans. But banks themselves must find a balance between tighter standards and the risk of hurting good smaller borrowers, who face increasing pressure from high-quality borrowers who may switch funding from abroad to domestic markets, potentially crowding out these smaller names. Banks and supervisory authorities must therefore continue to remain cautious, exercising prudence in risk management where possible, as the next crisis is likely to arise where it is least expected.<sup>3</sup>

#### 4. Financial Instruments as Innovative Tools to Tackle Crises

To date, there are many financial instruments which are initiated to help firms to prepare for a crisis. According to Neo-Liberalism economists, the rational expectation theory is used to describe and argue the financial dilemma and contention in order to generate public policy toward decentralization of economic growth, stability, and sustainability for civil state. It will explore the challenges and concerns for monetary policy during this critical period when both

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<sup>3</sup> Chabchitrchaidol, A. (2009). *A tale of financial excess and one of financial prudence*. Bank of Thailand.

risks to price stability and economic growth emerge almost side by side and it is possible that the effectiveness of monetary policy may have been eroded by the continual speed of globalization. Indeed, over the past couple of decades, the global financial market has gone through tremendous changes. One notable change is a rapid growth in the size and number of types of financial instruments as seen by the growing pool of acronyms, such as Asset Backed Security (ABS), Mortgage Back Security (MBS), Collateralized Debt Obligation (CDOs), and Credit Default Swap (CDS). More importantly, the advent of some of these instruments allows investors to “slice and dice” risk exposure to cater for particular needs, but in doing so adds complexity to their evaluation and makes the structure even more opaque.<sup>4</sup>

After a legacy of the 1997 financial crisis, Thailand’s financial system has remained resilient, with banks healthy and well capitalized. Strengthened banking supervision and increased caution on the part of banks and borrowers have helped to present excessive credit growth. In addition, regulatory authorities use of prudential measures has helped ensure vigilance on the part of banks and helped guard against financial vulnerability in the household sector. However, the notion of financial engineering—the use of derivatives to manage risk and create customized financial instrument—was still too new for the Thai society at the moment (Laothammatas, 1992).

Financial engineering, though can help a company achieve its strategic goals, first gained some bad impression from Thai people. That is because they received some misleading stories from the press. For instance, traders within the financial staff use derivatives to speculate on the steepness of the yield curve or on movements of exchange rates. It appears that these bets have not been driven by the company’s business strategy and that senior managers have been unaware of choices made deep within their finance organizations. When misguided wagers backfire, companies lost millions of dollars and executives lost their jobs. Managers who seek to avoid disasters certainly must pay careful attention to these cautionary tales. Nevertheless, these accounts could easily give the impression that financial engineering is not used, and indeed should

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<sup>4</sup> Poonpatpibul, C. (2009). *Challenges for monetary policy in a changing world*. Bank of Thailand.

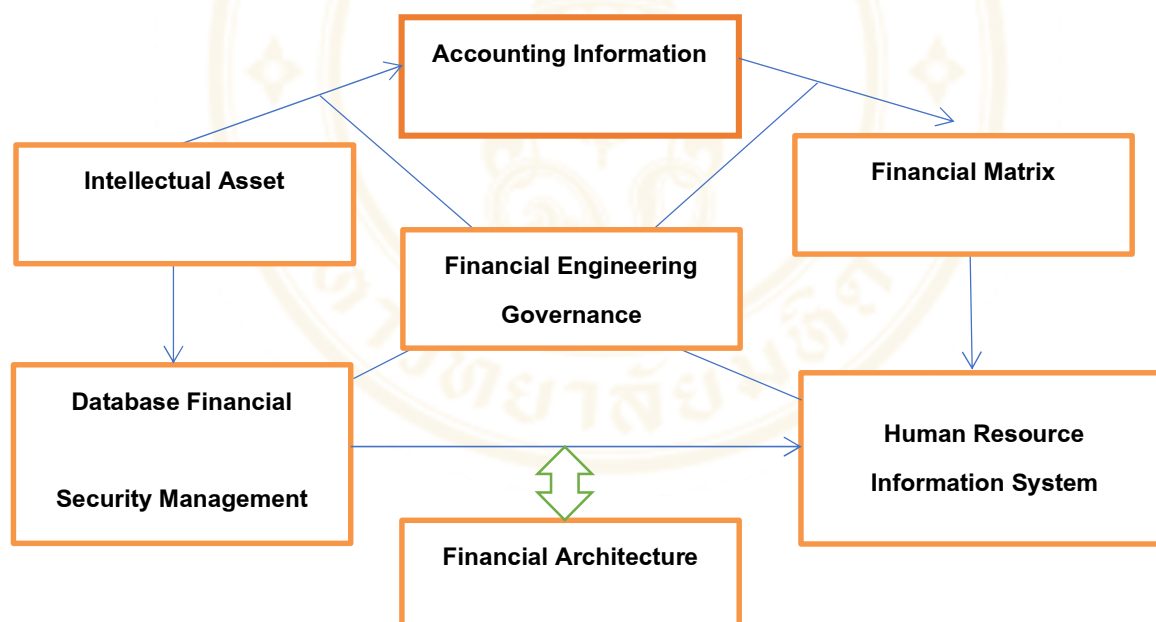


not be used, by non-financial companies to advance core business goals. That impression would be wrong.<sup>5</sup>

## 5. A Case Study of CitiBank N.A. Thailand

CitiBank N.A. Thailand has been operated in Thailand since 1967, and offered a broad range of innovative financial products and services, including consumer banking and credit, corporate and investment banking, transaction services, securities brokerage, and wealth management.<sup>6</sup> To keep abreast of financial architecture paradigm, Figure 1 illustrates Citibank's financial engineering architecture which incorporate financial tools with human capital management. Financial engineering can help a firm not only to reduce the cost of existing operations and develop new products and services but also to manage risk and gain a competitive advantage.

**Figure 1** CitiBank N.A. Thailand's Financial Engineering Governance Model.



*Source.* Author.

<sup>5</sup> Tufano, P. (1996). How financial engineering can advance corporate strategy. *Harvard Business Review*, 74(1), 136-146.

<sup>6</sup> <https://www.citibank.co.th/en/aboutus/index.html?lid=THENCBGGNFOTLABOUTUS>

In terms of corporate governance, it is crucial for executives and employees to take it into consideration. Citibank's financial engineering governance is coherent with governmental policies and mandates. Financial engineering governance relies on all stakeholders, like creditors, auditors, vendors, customers, authorities, the media, and the public, who work together to focus on the effect of corporate activities. According to Neoliberalism, the world's economic and financial situations call for the need to greater harmony cooperation, which requires concerted efforts by civil society, legitimacy institution, civic government, and citizen partnership, in combating and encountering the global financial crisis. The impact of crisis nowadays and the effect of unwinding of measures taken would not be a zero-sum game, and all players could potentially lose. Thus, going forward, finding the right balance and creating ties between these four pillars—citizen, society, economy, and nation-state interests—will be considerable task for national authorities so as to achieve the ultimate objective of financial engineering governance at large among the context of risk and change volatile global environment.

In terms of human capital management, CitiBank N.A. Thailand places importance on talented employees by investing in talent recruitment, development, and retention programs. CitiBank N.A. Thailand also focuses on improving corporate communications and performance management. Some other issues such as learning from mistakes and information sharing, workforce diversity, and corporate social responsibility are also taken into account (see Appendix).

## 6. Discussion and Recommendations

The author suggests that in order to overcome global turbulence and reawaken economic growth, firms need to link their financial engineering with corporate governance. Thailand cannot rely on public sector organizations alone to deal with global economic challenges. As we are living in a pluralistic society, it is necessary for all stakeholders to cooperate and ensure that promptly remedial actions can be put in place in light of the ongoing global financial crisis both macro-economic and micro-economy.

The author also offers some recommendations for BOT and other related agencies to oversee financial institutions and strengthen them in an economic downturn.



(1) In a rapidly changing environment, BOT should innovate up-to-date financial policy devices and oversee Thai financial institutions thoroughly and rigorously.

(2) BOT should utilize an effective management information system (MIS) in monitoring and overseeing Thailand's financial institutions.

(3) BOT should invest in strategic and performance evaluation tools that will be used to assess and enhance the performance of Thailand's financial institutions. Such tools may be discussed as follows.

(3.1) BOT may apply a SWOT analysis and performance assessment rating tools (PART) to help an agency to formulate national monetary policy and strategic management plan that can help BOT make a decision effectively and efficiently.

(3.2) BOT may apply a balanced scorecard (BSC) to analyze and measure financial institutions' performance. According to Kaplan and Norton (1996), BOT can enhance the financial engineering governance of the financial institutions using the following dimensions:

- Maintenance of reserve balance requirements
- Open market operations (OMOs)
- Standing facilities

(4) BOT should promote financial institutions' integrity by utilizing some tools, such as result-based management system (RBMS), Management by Objective (MBO), and Management by Activity (MBA). Result-based management system (RBMS), for example, is a holistic tool to monitor and control the performance of an organization in various dimensions, such as profitability, sales growth, market value, customer and employee satisfaction, social responsibility, and firms' ethics.

(5) BOT nowadays should pay special attention to the notion of the United Nations' sustainable development goals (SDGs). For example, BOT may play a role in promoting financial institutions' ethics and transparency as well as reducing economic inequality among Thai citizens.

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## Appendix

### CitiBank N.A. Thailand's Best Practices Related to Financial Engineering, Corporate Governance, and Human Capital Management

#### Company Mission

The company, we want to be the five-point plan, was the ultimate goal to be the most respected global financial services company and our shared responsibilities as follow:

##### **We have a responsibility to our clients**

-We must put our clients first, provide superior advice, products and services, and always acts with the highest level of integrity.

##### **We have a responsibility to each other**

-We must provide outstanding people the best opportunity to realize their potential. We must treat our teammates with respect, champion our remarkable diversity, share the responsibility for our successes, and accept accountability for our failure.

##### **We have responsibility to our franchise**

-We must put Citi Group's long-term interests ahead of each unit's short-term gains, and provide superior results for our shareholders. We must respect the local culture and take an active role in the communities where we work and live. We must honor those who came before us and extend our legacy for those who will come after us.

### Enhancing Employees' Competencies Through Training

We need to instill in our employees and appreciation for our legacy, platform, opportunities, and Shared Responsibilities, and give them the tools accomplish our goals.

-We will provide training for all employees as well as vehicles for new employees to understand our Shared Responsibilities:

-Annual franchise training at three levels: for Citi Group Senior Managers (3k); for Citi Group Managers (30k); and for All Employees (300k).

-A full-day orientation for all new Citi Group Senior Managers and orientation for all new employees.

-Manager training for existing managers and for all newly promoted managers.

-Annual Ethics/ Code of Conduct Training for all employees.

-Annual CCO continuing education.

### Gaining a Competitive Advantage Through Talent Management

We need to deepen our commitment to building and developing our talent and help our managers reach their potential.

-360 online reviews and executive coaching for all Planning Group members (120) at least every two years.

-Annual Managers Survey to give anonymous feedback to all Citi Group Senior Managers on how they may become better managers.

-Significant expansion of Executive Development programs-including the creation of a new regional Business Leadership Seminar for Citi Group Senior Managers.

-Enhanced Senior-level Talent Review process and increasing the opportunity for mobility through a global job posting board and sharing key opening across businesses.

-Continued emphasis on promoting diversity, including a new initiative on flexibility.

### **Strengthening a Company's Performance Through Balanced Performance Appraisals**

We need to strengthen the performance appraisal process to consistently reinforce our Shared Responsibilities-therby maintaining yet balancing our numbers-oriented culture.

- Consistent performance appraisal & global setting process for Citi Group Senior Managers.
- Evaluations of all Citi Group Managers (30k) and annual discussions and signatures for all employees and their managers regarding the Shared Responsibilities.
- Expansion of Stock Ownership Commitment for Citi Group Senior Managers.
- Compensation for Business Heads will include a significant component based on how Citi Group overall performs-not just their business.

### **Improving Internal Communications**

We need to present a clear and consistent message of Citi Group's goal and Shared Responsibilities, celebrate our values and history, and better facilitate two-way communication.

- CEO bi-monthly dialogue for Citi Group Senior Managers and annual tour in 3Q/4Q.
- Quick calls with Management Committee, CCOs, and Executive Development Alumni-as needed.
- Broad communication on the Shared Responsibilities, VOE data, and results from the Ethics Hotline.
- Improved dialogue with employees through regular Management Committee calls to a broad range of employees.
- Annual Conference for top 200 Senior Managers.

### Investing in Monitoring and Controlling

We need to strengthen our independent controls and the control environment throughout the company to support the businesses in their efforts to grow responsibly, to minimize mistakes, and to ensure that when mistakes occur, they are handled appropriately.

- Independent Compliance structure outside of business reporting lines.
- Evolve self-assessments as tools to anticipate problem.
- Compliance training for all managers (30k) and specific training for each line of business.
- Expanded audit coverage and increased number of guest reviewers.
- Continuing education for all control function professionals.
- Increase in resources for Compliance & Audit.
- Chuck and Bob personally discuss results of a weak RCSA or an unsatisfactory audit or regulatory review with the person responsible and his/her boss.