



The Influence of the U.S. Economy on the Financial Businesses Act and Fluctuation of Thai Economy

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Abstract

The purpose of this study is to examine whether the financial rules and regulations, economic policies, and international agreements of the U.S. could be the source of banking, financial business laws, and economic fluctuations in small-opened economies, one of which is Thailand. This study used documentary research and inductive reasoning to examine the origins of the U.S. Great Depression in 1929 and the other three global economic crises: the Latin, Asian, and subprime crises. The findings seemed to support the notion that U.S. financial laws, rules, regulations, economic policies, economic problems, international agreements, and policy remedies may cause economic fluctuations in countries with small-opened economies. To avoid these economic fluctuations, small-open-economy countries should defend themselves when signing international agreements. They should make use of reservation clauses in the international agreement. The final proposal is that small-open economies, such as Asian countries, should form an institution with the same function as the IMF to maintain the group's financial stability.

Keywords: 1) sources of financial laws 2) financial rules and regulations 3) economic crises 4) international agreements 5) Economic Superpower

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Introduction

The Great Depression of the United States of America (U.S.) in 1929 caused economic problems to spread throughout the world. This is the world's first global economic crisis. The economic downturn in these countries had lasted 8-12 years. This event has caused economists to abandon the belief of the Classical Theory that the economic system will adjust itself out of trouble, whereby the country does not require any intervention policy. Aiginger (2010, p. 11) considers that fiscal and monetary policy was not properly applied in 1936 after the Great Depression started.

Subsequent global economic crises appeared in Latin countries in the 1970s-1980s and Asian countries in 1997, starting with Thailand as the first country. After that, the economic crisis returned to the U.S. again in 2008. What caused the 2008 global economic crisis? Why can global economic crises repeat themselves despite, after every economic crisis, measures have been taken to prevent future crises?

Many studies such as Arora and Vamvakidis (2006, p. 28) found that the U.S. economic growth had significant impacts on developing Asian countries, including Thailand, through international trade. Bowman, Londono and Sapriza (2015, p. 55) and Ahmed, Akinci and Queralto (2021, p. 27) found that the U.S. monetary policy affected asset prices, caused investment expansion, and led to the economic growth of emerging economies. These studies used quantitative studies that measured the relationship between economic variables, such

as the value of international trade, the money supply, and variability in the U.S. money supply to the asset price or income of emerging economies and use measurable correlations to describe the US influence on other countries. These studies did not consider institutional variables. Questions of this nature can only be answered by qualitative studies. At present, there are still a small number of qualitative studies that employ institutional and action variables, such as international organizations, international agreements, to analyze the U.S. economic influence. These studies also excluded law variables from the analysis of the U.S. influence. The study issues were related to the explanation of reasons, necessities, origins, and direct impacts of U.S. organizations or institutions rather than the analysis of the U.S. influence question as the statistical model does. The statistical models cannot be used to describe the effect of the non-quantifiable variables. It is therefore interesting to see whether including the law and economic institution variables, such as banking laws, international agreements, and organizations, in combination with the time sequences of the occurrences, in the analysis of the U.S. influences on small-opened economy countries would yield similar conclusion to those of the quantitative ones. The weakness of the qualitative synthesis is that it cannot enumerate the relative sizes of the U.S. influence on each country. Thus, a comparison of the sizes of U.S. influence and its impacts on each country is not possible. Such qualitative studies are therefore cannot be substituted for quantitative studies. They must be conducted complement to each



other to increase the understanding of the effect of the non-quantifiable factors.

This study used institutional factors such as organizational formation and financial innovation (the creation of the Bretton Woods System, International Monetary Fund, Financial Liberalization (FL), new financial instruments, legislation to expand the scope of the bank's business, etc.), that have a huge impact on the economy. Legislation and international covenants, such as banking law and FL, are problem-solving measures taken to achieve economic gain. The FL is a measure that amplifies the effect of economic wealth transfer mechanisms that have enabled the distribution of money to the U.S. trading partners. Naturally, money flows from low-yield locations to higher-yield locations. (Kaufman, 1994, p. 123).

Research Objective

The objectives of this study are to examine whether financial rules and regulations, international agreements, and economic policies of the United States are sources of financial law and economic volatility in small-opened economy countries, including Thailand.

Method

The study used documentary research and inductive reasoning, which is a synthesis of facts or supporting events from general sub-observational evidence and bring to the conclusion as general knowledge. (Royal Academy) This study takes a retrospective look at current events on how the so-called small

country economic volatility occurred. How can the U.S. print so much money, and have huge deficit spending without affecting its exchange rate? By considering the retroactive factors such as institutional variables, laws, agreements that are not in quantitative research, this research gathered document evidence traced back to the post-World War I (WWI) period during 1919-2022 or about 103 years. The more supportive events, the firmer the conclusions are. (Enumerative Induction) The researcher's tasks are to 1) set up hypotheses or questions, 2) form sub - hypotheses that link smaller events, and 3) to find evidence of the events from the documents that confirm the explanations that were consistent with other related events. The investigator must seek pieces of evidence that are likely to be the main causes leading to the effect and justify the linking reasons. The researcher must analyze or synthesize the evidence to answer the questions stated in the study objective. The hypothesis may be rejected if the evidence is weak or does not confirm the hypothesis. After achieving strong pieces of evidence and finding a retrospective connection, the researcher rearranges the explanations in chronological order from past to present. The researchers compiled secondary evidence events describing the times of occurrences and their connection from economic and legal research published in academic journals, books and distributed by university publishers and renowned academic publishers such as Oxford University Press, Princeton University Press, Palgrave Macmillan, Springer, among others, legislative provisions of trusted institutions and



organizations such as the Senate Secretariat of Thailand, Bank of Thailand (BOT), European Central Bank, U.S. House of Representatives, the U.S. Department of the Treasury. This research used several e-books and foreign journals databases such as the database of Thammasat University, ECONSTOR, ELSEVIER, Princeton IES, NBER, ECB, IMF, ResearchGate, OECD. Databases of foreign books and journals searched through Thammasat University library network included JSTOR, SPRINGER, World Bank e-Library, EBSCO, OXFORD UNIVERSITY PRESS, ScienceDirect. The research papers and their references provide links between important past events and side issues from the primary question, how does economic volatility occur in small country economic crises? Why can the U.S. print large sums of money with little to no effect on the exchange rate? What factors stabilize the exchange rate? Keywords used in the search were: financial crisis, debt crisis, global economic crisis, boom-bust cycles, Asian currency crisis, the Great Depression, Bretton Woods, Petrodollar recycling, the bank merger wave, international agreement, financial liberalization, the U.S. banking act, the Glass-Steagall Act, the Gramm-Leach-Briley Act, Subprime crisis, Financial Business Act, etc. There are 15 referenced articles from foreign academic journals, 2 articles from foreign legal organizations, 1 domestic article, 18 foreign books, 1 domestic book, as shown in the bibliography. To reduce bias in this study, four criteria are used to select the research, books, documents. Those criteria are the authenticity of the document, credibility, representativeness, and meaning for the study. Sections 2, and 3 outlined the

major events resulting from the U.S. measures or actions: the Great Depression, Latin, and Asia economic crises, and the events caused by the actions of the U.S. such as the establishment of foreign organizations, international agreement, the enactment of the U.S. financial institution regulations. Section 2, 3 describes the events and consequences of continuing economic and legislative situations, U.S. measures, with a synthesis of interrelated issues among the studied phenomena such as the revision of Thailand's financial law as an example of a small economic country. Section 4 discusses the subprime economic crisis. These four sections address key facts about the assumptions and, therefore, provide the basis for synthesis to answer the objective of the study. Section 5 presents a summary diagram of the crucial events and a synthesis of the rationale and necessary conditions that made the U.S. the birthplace of financial law and economic volatility of small economy countries, including Thailand, where necessary conditions are important factors leading to results. If the factor is absent, the effect will not occur. The chain of events will not continue. In addition, the end of Section 5 synthesizes why the U.S. can influence the world. Section 6 summarizes the study and policy recommendations.

As can be seen further, the U.S. economic problems in 1929 led to the enactment of important laws to prevent the risky behavior of domestic banks, such as lending to potentially insolvent borrowers, and the formulation of policies in the financial business that has influenced the laws and practices of small countries such as Latin American and Asian countries who want to trade in goods, services



and need external funds for the development of the countries. These behaviors are therefore based on the institutionalist theory that views law as a key institutional factor. It can be said that the U.S. is the one who set the rules for other countries to follow for its benefit. The development and solutions of the U.S. and its allies, including the European Union and Japan, have led to the economic problems of small economies around the world. The impacts were transmitted through trade channels, borrowing money from businesspeople (borrowing or selling bonds), and banks in the U.S.

Content

Overheating of economic development: the beginning of economic problems and solutions that created more problems

After WW I 1919, the U.S. was not badly damaged because the battlefield was located in the European area. Therefore, when the war was over, the U.S. could immediately begin to develop its economy. The country, as a source of goods for the global market, attracted human resources and businesses. The U.S. allowed banks to compete, leading to a dramatic increase in national income. Stock prices on the stock exchange and real estate prices had skyrocketed. The monetary theory can explain the price increase very well as being caused by having a lot of money to buy limited assets

Economic development sizzling after WW I leading to the Great Depression crisis

The U.S. Economic problems led to the stock market crash on October 29, 1929, when the U.S. stock market index dropped 48 percent (Rapp, 2015, p. 17). Every global

economic crisis starts with an increase in the money supply in the U.S. financial system to stimulate the economy until it overflows the economy. Some of the money went to invest abroad. Banks, competing for income, took a higher risk by lending to businesses that may not be able to pay back their loans. Subsequently, there was a stumbling block in the production sector. The price of agricultural products fell until many farmers were at loss and had to stop farming. High non-performing loans (NPLs) can lead to a financial crisis in the banking business. When the banks had NPL problems, they had to stop lending and so the problem expand into the manufacturing sector. The banking problems had expanded until the economic problem escalated and spread to other countries through international trade and investment. The financial problem became a global economic crisis.

Financial innovations and risk behaviors of commercial banks during the pre-crisis period 1920-1928

U.S. national income rose 45.53 percent between 1921 and 1929 (Maddison, 1995, p. 182). Banks expanded lending to agriculture and investment, direct lending, and through the stock market. There had been a huge expansion of the money supply leading to higher incomes that raised the ability to increase spending on luxury items such as cars, houses, radios, etc., and finally caused the stock market bubble. During this period, the U.S. had an excess supply of the agricultural product brought about by the use of machinery in cultivation. This led to a rise in farmers' income. As a result, there was a huge increase in the demand for agricultural land. Over-



production led to a decline in crop prices. Unfortunately, the drought in Mississippi caused agricultural yields to slump. Many farmers who borrowed from banks were unable to pay their debts.

Many peasants went bankrupt, causing a huge increase in unemployment in the agricultural sector. When many people were unemployed, there was no income. Demand for goods and services in the agricultural sector would inevitably decrease and lead to a decrease in gross demand. The industrial sector at the beginning of this period of economic development grew rapidly. In the beginning, the rise in credit induced people to buy goods and services. The increased production in the industrial sector was met by large demand. However, when there was a decrease in gross demand, the stock of products rose. The producers had to reduce production and decrease employment. People in the low-income group earned even less and increased in their numbers. Commercial banks had higher NPLs until the entire system of commercial banks had a negative net worth problem. There were sudden stops in lending and sudden withdrawals of deposits. Many businesses had no operating cash, so they had to stop operating. Many farmers had no money to spend on farming. They had to sell their land and migrate for jobs in cities where industries were cutting production. Many people lose their jobs. The unemployment rate had increased considerably (Aiginger, 2010, p. 2).

Problems in the banking sector grew and led the economic crisis

While real manufacturing worsened, stock market indices continued to

rise until the stock market bubble soon burst on October 29, 1929. The stock market crash was followed by the collapse of the banking system. Savings increased due to the economic downturn, causing a decline in gross demand again. The U.S. announced Smooth-Hawley Tariff in 1930 to reduce imports causing trade retaliation from trading partners. Exports declined due to higher prices. The drought in the state of Mississippi worsens the economic downturn. There was no systematic fiscal and monetary policy during this period because the Classical ideology did not advise the government to interfere with the economy. This caused a long recession until the economic problem expanded into a global economic problem. There was unemployment for 8-12 years, economic problems continued until WW II (Aiginger, 2010, p. 7).

Solution to the U.S. economic problems created lasting and far-reaching impacts

The U.S. regulations and international agreements led to legislation and compliance among countries that accepted the agreement.

Laws regulating risk behavior of commercial banks

The Glass-Steagall Act (GSA) 1933, another name of Banking Act of 1933 (a law on banking named after two members of the House of Representatives who pushed the law) was enacted to prevent the risky behavior of commercial banks (Jarsulic, 2010, p. 121). To prohibit commercial banks from earning high income from lending to risky businesses or doing risky activities, the GSA stipulated four prohibitions (references take the international format of the field of law).



Firstly, Section 5(c) and Section 16 define securities-related activities from which the commercial banks that are members of the Federal Reserve System are prohibited: underwriting or manipulating securities (Section 5(c)) GSA (12 USC § 321-332) and Section 16 of the GSA (12 USC § 24 (Seventh)).

Second, there are provisions in banking activities that prohibit securities companies from doing certain activities. It prohibits securities companies and non-banking firms from conducting depository business (Section 21 of the GSA (12 USC § 378)).

Third, commercial banks are prohibited from being affiliated with companies that engage in core securities activities (Section 20 of the GSA (12 USC § 377)); and

Fourth, banks and securities companies are prohibited from sharing their officers, directors, and employees (Section 32 of the GSA (12 USC § 78)).

The Bank Holding Company Act of 1956 (BHCA) (12 USC §§ 1841-52 (2012)) was subsequently enacted to strengthen the GSA's effectiveness in stabilizing banking business through the 1970s. After the 1970s, the development of international finance and US finance under globalization, and deregulation had lowered the financial sector governance (Sutham, 1997, p. 1893).

First US exchange rate protection by creating artificial demand for dollar: Establishing Bretton Woods System

July 1944, after D-Day, the landing at Normandy Beach during WW II less than 30 days, representatives from 44 countries met in Bretton Woods, New Hampshire to establish after-WW II financial rules to have a fixed

but flexible exchange rate system. After three weeks of meeting, it resolved on the Bretton Woods System, the International Monetary Fund (IMF), and the International Bank for Reconstruction and Development (IBRD). The IMF was designed to maintain international financial stability. The IBRD was designed to provide loans for post-war city reconstructions. Later, the IBRD was developed into the World Bank (WB). The Bretton Woods agreement focused on one main problem: designing rules to control the exchange rate (the price of money) where the currency of one country is converted to another country's money. It set the rules for international trade after WW II to replace the International Gold Standard used between 1879-1913. The U.S. also supported the founding of the International Trade Organization (ITO) in 1946 to provide the Bretton Woods System's main structure and drive the U.S. international trade (Matsushita, et al., 2015, p. 1).

The Bretton Woods System could be called a gold-dollar system because whoever holds the dollar can exchange it for gold. This system was introduced in 1945. In practice, this was the Fixed-Rate Dollar Standard used during 1950-1970 (McKinnon, 1993, p. 2), resulting in a strong demand for the US dollar. In 1971, there was high inflation stagflation in the U.S. caused by a very high government spending deficit resulting from the Vietnam War. This weakens the dollar credibility that affects the demand to hold the U.S. dollar. Several countries led by France exchanged their dollars for gold under the Bretton Woods Agreement. To protect the gold held by the U.S., U.S. President Nixon withdrew the U.S. dollar from the



Bretton Woods Agreement. This caused the dollar to fall. This helped the U.S. to export more because the U.S. product was cheaper. At the same time, the price of imported products was more expensive, causing imports to reduce. But global economic imbalances still caused the U.S. to have a huge balance of payment deficit (Matsushita, et al., 2015, p. 334). This pressured the U.S. to find a way to rebuild the artificial demand for the U.S. dollar again.

Second US exchange rate protection by creating artificial demand for dollar: Establishing the Petrodollar Agreement

In 1975, the U.S. had resorted to strong ties with Saudi Arabia since 1945. In 1945, the U.S. agreed to protect oil fields and the construction of an airport in Saudi Arabia in exchange for Saudi Arabia's approval of American military bases in its own country. This favor was a good basis for an agreement with Saudi Arabia - led OPEC to set prices and sell oil in U.S. dollars. This amount of money is known as the Petrodollars. The U.S. made an agreement that Saudi Arabia could use the remaining dollars after debt payments to buy government bonds and deposit the rest in the U.S. banks. Petrodollars grew as oil trading increased in quantity and value. As the world economy develops, its cumulative value continues to rise continually, causing the demand for U.S. dollars to rise. As the demand for the dollar increased, the U.S. was able to print a large amount of dollars to close a huge spending deficit while successfully maintaining confidence in the dollars. Many countries use U.S. dollars as their national reserves. After the U.S. and its people have come to experience

and get used to living at the expense of other countries by printing large amounts of money and maintaining the currency value by continuously creating artificial demand for the dollar, the U.S. politicians increase the importance of becoming the world's economic superpower more than ever. It is difficult for the U.S. government to withdraw from this policy. On the contrary, it will only become worse (Clark, 2005, pp. 33-34).

Persuading other countries to trade oil in U.S. dollars lays a burden on the commercial banks that hold their deposits. Some of the Petrodollars are used to support government spending on developing countries and expand international influence. The Petrodollar amount continues to increase as the world's oil consumption continues. The U.S. administration must help commercial banks find a way to invest or lend the vast surplus of Petrodollars that have flowed into the country for a return. It was very coincidental that Latin American countries (LACs) were in desperate need of money to develop their countries.

Pushing for Capital Liberalization (CL) and Financial Liberalization (FL) Agreements Leading to the Latin and Asian Economic Crisis

In 1989, John Williamson wrote a background paper for a conference on the topic of the Institute for International Economics, which explored the conceptual framework of economic development in the form of traditional policies. In the article, Williamson used the term "Washington Consensus" for the 10 Principles (Williamson, 2008, p. 14) that outline the policy implementations employed



to solve problems for the LACs. These policies were generated by the Washington Congressmen, the administration and IMF academics, the WB and the Inter-American Development Bank (IADB), as well as a research team working on economic solutions for LACs. One of the 10 principles was the FL.

The push for the FL issue was supported by academia, such as the market forces school led by McKinnon (1973, p. 130), who thought that the government had failed to control the financial market. He proposed the idea supporting the FL by explaining that the rules governing the financial system are a cause of distorting money markets and resulting in the inefficiency of capital allocation. The opponents believed that the market mechanisms fail when there is no control. Although the reasoning appeared more advantages rather than disadvantages, the advantages were offset by empirical evidence that money and capital markets liberalization agreements have enormous pitfalls that are hard to see. This caused the agreement's participants from different regions to fall into two economic crises at about the same time.

Latin American Economic Crisis

From 1960 to 1975, Latin America was cut off from the international private equity market. Only a small percentage of private foreign direct investment (FDI) flowed into the region. During this period, Latin American countries relied on state-borrowed capital flows to develop the countries. Most of the loans were from other governments, WB, IADB, and IMF. During this period, these countries were primarily tied to treaties or agreements with in-

ternational institutions. Later in 1975, the Latin American countries signed the CL agreement allowing the free movement of International Capital. This was the first period of full-scale FL, with no legislation regulating the behavior of commercial banks.

From 1975 to 1980, the liquidity of international private capital had greatly increased. Latin American commercial banks become recipients of capital. Petrodollars were recycled as loans in these countries. Petrodollar lending had impacted the financial stability of third world countries. (Katz and Mahler, 1992, p. 193).

Capital Liberalization before the Latin American Economic Crisis of 1982

Before the crisis, Latin American countries joined the CL Agreement during 1974-1977, which provided a high proportion of capital inflows relative to the national income to offset insufficient savings required by investment. The decline in savings was attributed to increased consumption following economic growth. The countries in this region had adopted a state-led investment policy in developing the country. The capital inflows lowered interest rates and stimulated investment, employment, and expenditure resulting in substantial economic growth. The countries in this group gradually developed full FL during 1977-1996 (Williamson and Mahar, 1998, p. 11).

The banking crisis escalated into the Latin American economic crisis of 1982.

The region received 21 percent more private capital inflow than exports (Edwards, 1998, p. 5). Capital inflows into

the region produced several macroeconomic effects:

1) Lower interest rates: massive inflows of capital had been spent in the acquisition of assets, causing the price of homes, land, and stocks in the region to skyrocket. 2) Higher inflation resulted in lowering real exchange rates of the beneficiary country, causing an appreciation of the currency. This caused these countries to lose their competitiveness in exports. 3) The inflow of capital caused the economy to grow rapidly. People had higher incomes and thus more spending. Consequently, the savings rate remained at a low level, which was inconsistent with investments that had to increase following economic growth. Commercial banks had to compete in capital borrowing to be able to lend more, without checking the customers' creditworthiness. This caused too much lending. Banks that did not borrow would lose all their customers. Clients used loans for risky investments with unworthy returns, and lavish consumption. The result was the failure of the market mechanism in the banking business, moral hazard, and adverse selection. The economy looked good, but there were big hidden problems, like an iceberg with only the tops floating in the sea. In 1982, Mexico asked for a debt-service suspension. Capital inflows resulting from herding behavior were reversed competitively by the same behavior (Edwards, 1998, p. 6).

After the U.S. economy recovered, the U.S. central bank raised the domestic interest rate. As a result, the loan interest rate increased accordingly. Businesses in the country where borrowers who should not incur

debt in the first place were unable to repay their debts. The economy began to falter and entered the first phase of economic troubles in late 1982 and early 1983. Many Latin American countries had NPL problems resulting in the loss of confidence in their currencies, and panic inflation, which again caused substantial capital outflows. Other foreign funding sources had ceased lending to all Latin American countries (Edwards, 1998, p. 7).

Driving negative impacts from the United States between 1982-1989

Latin American countries were in a banking crisis that escalated into an economic crisis. To prevent the large number of NPLs from causing the entire U.S. commercial banking system who were lenders to Latin countries to have negative net worth problems, the U.S. government had encouraged the IMF and WB to lend to Latin American countries. The loan added \$20 trillion to the economic structure reform, which gave these countries time to raise money from privatization (selling assets) to pay off debts. The IMF took care of loans for debt restructuring and WB took care of loans for economic restructuring. In 1984, it was estimated that debt levels would gradually decline until 1990 (McKinnon, 1993, p. 28).

The economic crisis in Latin America, therefore, consists of 3 sub-crises which are the Debt Crisis, Balance of Payment (BOP) Crisis, and Banking Crisis. As the Latin economic crisis was not completely solved, the capital flow was bound for Asian countries until the economic crisis occurred again in Asia.



Asian Economic Crisis: Started in Thailand in 1997

After the Latin American economic crisis began to unfold, the capital that used to flow to Latin America began to flow back to the U.S. and other capitalist countries from 1985 onwards. In 1989, Thailand joined the FL agreement, allowing free capital inflows and outflows. Other countries in Asia had gradually joined the agreement.

Basel statute amendment and Financial Liberalization (FL)

During 1991-1995, the U.S. and European countries' economies were in a recession. Low return on investment led to lower investment. Therefore, interest rates were reduced to stimulate private investment and spending. Instead, the capital was invested in (lent to) another country that offers a higher return on capital. In addition, in 1988, the Basel Committee on Banking Regulation and Supervision Practices amended the Bank for International Settlements (BIS) rules. The relevantly new rule states that short-term lending to developing countries in South Asia is low-risk lending that does not require any loan loss reserves (Demirgüç-Kunt, 1992, p. 24). This reduced the foreign loan interest rate to a low level of 5-6 percent per year during 1994-1995. While interest rates on deposits at Thai financial institutions ranged between 12-15 percent per annum, interest on loans from financial institutions ranged between 14-17 percent per annum. In the past, there have been several studies examining the root causes of the economic crisis in 1997, such as King (2001, p. 441), Klingelbiel, Hernandez and Alba

(1999, p. 4), and finding that it was due to commercial bank mismanagement. While Sutham (1997, p. 1891) and Corsetti, Pesenti and Roubini (1999, p. 2) found that it was due to FL. Although there was no consensus on which factor between finance, politics, law, and society was the main factor, if it can be examined what important conditions occurred in the Thai economy during this period that are necessary conditions for the problems (the missing important fact would yield no result), the result would be that FL is a necessary factor, although not sufficient. That is, if there is only one factor, the result would still not occur. Financial liberalization (FL) allows the private sector and banks to borrow freely from abroad at low costs. This induced the commercial banks to compete for income. They borrowed and carelessly lent out the money without government supervision. When interest rates rose, debt service stopped. Foreign lenders stopped renewing the (short-term) loans, leading to financial crises like those occurring in Latin America. The absence of rules governing the behavior of commercial banks is another factor that is a necessary but insufficient condition to cause the financial crisis. That is even if there are rules, there can still be a crisis. In accordance, Demirgüç-Kunt, and Detragiache (1998, p. 84) found that FL made the financial system fragile.

Following the signing of the FL Agreement in 1990, the Ministry of Finance of Thailand issued a notification requiring the BOT to establish regulation on the Bangkok International Banking Facility (BIBF) published in the Government Gazette on September 17,



1992. The regulation title is The Operation of international banking facilities by commercial banks, Volume 109, Section 119. The purpose was to facilitate the agreement formally taking effect in Thailand and to issue the regulation for the freely-float interest rate effecting in the same year. Consequently, the commercial banks had to borrow and compete for lending. The creditworthy customers ran out quickly, so banks had to start lending to less creditworthy customers. The macroeconomic effects were the same as those in Latin countries. The stock exchange index rose above 1700 before the bubble burst in 1997.

The capital inflow into Asian countries was driven by the Bank for International Settlements (BIS). The provision stipulates that lending to Asian countries is classified as low-risk lending that does not require a loan loss reserve. This reduced lending costs, allowing banks to charge a lower lending interest rate, and thus encouraging more borrowing. However, this stipulation is meant only for short-term loans (less than 365 days), allowing short-term loans to flow into Thailand and many Asian countries. As a result, the economy was very unstable. For short-term loans, investors can withdraw the loan at the end of the 1-year term, while banks often lent long-term loans. Banks were unable to retrieve the long-term loans when foreign lenders called back loans. In addition, Thailand, despite its financial liberalization, still used a fixed exchange rate system, which is an exchange rate paradigm that is inconsistent with a free capital flow system where exchange rates are determined by the market. Under a fixed exchange rate sys-

tem, the cost of private finance is lower than it should be, resulting in more borrowing (Jansen, 2001, p. 128). The influence of the U.S. on the BIS is through the IMF, for whom the U.S. is a major financial sponsor (Giovanoli, 1989, p. 842).

The stumbling causes, the banking crisis and the Thai economic crisis of 1997

Many years before 1997, the Ministry of Finance of Thailand and the BOT have gradually reduced their control and finally liberalized the financial system and money markets (Sutham, 1997, p. 1892). The Thai economy seemed to be doing well until 1995 when several events stumbled upon the Thai economy. China and Vietnam's products competed with Thailand's exported products in the world market at lower costs. Thailand's garment and leather industries collapsed due to the drop in exports, which again raised the unemployment rate. In addition, the host country began to raise interest rates. Foreign investors stopped renewing loan contracts. This bad news led to more savings. People and businesses started earning less and subsequently reduced consumption. The real estate business began to falter. Commercial banks had large NPLs that turned the banking system's net worth into negative value. There was also an attack on the currency by international private funds. Consequently, the BOT had to protect the baht value and lost the foreign exchange reserve fund. Nevertheless, the BOT was unable to maintain a stable exchange rate. The exchange rate increased from 25.6 baht per dollar to above 58 baht per dollar. In the



latter half of 1997, debt in dollars swelled in baht value. This raised NPLs and caused the banks to stop operating. The production had to stop. The bank crisis escalated into an economic crisis. Trade networks and international banks had caused such incidents to spread to other Asian countries such as the Philippines, Indonesia, Malaysia, Korea. Thai economic crisis was turning into the economic crisis of Asia. The macroeconomic effects of capital inflows were hardly different from that of Latin America. While the economic crisis was not yet completely solved, the Dot Com bubble burst in 2001 in the U.S., where the Fed had to reduce interest rates again.

Thailand's law of financial institutions adjusted following the U.S. law

A study by Arora and Vamvakidis (2006, p. 28) found that U.S. economic growth affects developing Asian countries, including Thailand, through international trade. Bowman, Londono, and Sapriza (2015, p. 55) and Ahmed, Akinci and Queralto (2021, p. 27) found that U.S. monetary policy affects the asset prices of emerging economies. It can be further synthesized that the mechanism that transmits the impact of the U.S. economy to the Thai economy and small economies were the U.S. laws and regulations, and the international agreements. These countries had followed the U.S. financial institutions law, FL agreements, and trade agreements with the U.S. Before B.E. 2551, Thai commercial banks were not able to conduct financial businesses corresponding to the stipulations in the GSA. The term "financial business" was defined to mean commercial banking business, finance

business, credit foncier business, securities business derivatives business under the derivative law, life insurance business under the life insurance law, or other businesses as prescribed in the notification of the BOT (Section 4 of the Financial Institution Business Act B.E. 2551) because the Commercial Banking Act B.E. 2505 allows commercial to accept deposits that must be paid back on demand or at the end of the specified period, and to utilize that deposits in one or more ways, such as (a) lending; (b) buying, selling or collecting money stipulated in the bills of exchange or any other negotiable instrument; (c) buying or selling foreign exchange. In this regard, it may or may not undertake other types of business which are traditionally performed by banks (Section 4 of the Financial Institution Business Act B.E. 2551). The mentioned laws are

1) Derivatives Act, B.E. 2546

This Act was enacted so that commercial banks and the Stock Exchange of Thailand could conduct futures trading. Before the 1997 economic crisis, the Thai baht was attacked by foreign currency centers (offshore), such as Hong Kong, forcing the BOT to protect the baht value and face a loss in engaging the future contract. The reason was probably that there was no law allowing stock exchanges and commercial banks to conduct currency future trading in Thailand. Legislation enabling financial institutions to carry out the necessary transactions for conducting business amid financial liberalization was necessary. It's like arming a business unit that must wage war on business competition. In conclusion, this Derivatives Act was enacted too late.

2) Financial Institution Business Act B.E. 2551

Later, Thailand had a great economic crisis in 1997. Therefore, an Emergency Decree amending the Commercial Banking Act B.E. 2505 (No. 4) in 1998 was enacted. The amended act allows commercial banks to merge, merge with other financial institutions, or transfer business between each other or with other financial institutions after 1997. Some banks had to be nationalized. The reasons for solving problems related to the status or operations of commercial banks were for the stability and strength of the whole banking system. Thus, there was a need for a law to empower the BOT to solve such problems. Especially, this was a case where there was an unavoidable urgency to maintain the economic stability of Thailand. This amendment was not an amendment following the GLBA as it was enacted before 1999, but the purpose of the amendment was to solve the economic crisis.

To enable Thai commercial banks to compete with foreign financial institutions, the Thai financial institutions' operations should be conducted following the same standards as those of financial institutions in large capitalist countries like the U.S. This can be seen from the content of the financial law that was in harmony with the U.S. GLBA law, enacted in 1999. The National Legislative Assembly revised the Commercial Banking Act and the Finance Business Act relating to securities business, credit foncier business and merged them into one act. The bill was proposed by the Cabinet with General Surayut Chulanont as Prime Minister for consideration by the House of the

Senate on 19 September 2007, and the agenda for the House of the Senate was included in the Meeting of the House of the Senate No. 53/2007 on Wednesday, September 26, 2007 (Secretariat of the House of Senate, 2007, p. 1).

This act is called The Financial Institution Business Act B.E. 2551 (2008), published in the Government Gazette on February 5, B.E. 2551. In this act, the part regarding the commercial banks' business operations is stipulated in Section 36, which specifies that: commercial banks, finance companies, or credit foncier companies can operate only commercial banking business, finance business, or credit foncier business, as the case may be, and related businesses or businesses necessary for the business of commercial banks, finance company, or credit foncier companies as specified in the notification of the BOT. The BOT may stipulate in the notification the related or necessary businesses of the different financial institutions and commercial banks and may also prescribe rules for undertaking such related or necessary business.

This act allows financial institutions to have more flexibility in choosing a business model by allowing the establishment of a financial business group to provide financial services that include a full range of commercial banking, securities, life insurance services, as well as adding tools to supervise financial institutions to set up capital custody rules that can accommodate various risks with more coverage and ensuring that financial institutions have better tools for measuring and assessing risks as well as disclosing information that complies with international standards according



to Basel II (Supporting documents for Bill of Financial Institutions Businesses Act, B.E.).

The BOT issued the BOT Notification allowing commercial banks to undertake financial business, including businesses related to or necessary for financial business. It is worth noting that before the Asian economic crisis of 1997, the Commercial Banking Act of Thailand prohibited commercial banks from doing the same thing as the prohibition shown in the GSA, whose purpose was to reduce bank risk behavior. However, after 1999, the U.S. repealed the GSA and enacted the GLBA Act (Restrepo, 2005, p. 272). Later, the Subprime Crisis occurred in 2008. Thailand also repealed the Commercial Banking Act B.E. 2505 and enacted the Financial Institution Business Act B.E. 2551. This adjusted the financial business law to enable Thai financial businesses to compete with those in foreign countries driven by the new rules of the US.

The 2008 Subprime crisis in the U.S.: Consequence of solving Dot Com economic problems

Anyone hardly expected the economic crisis to recur in the U.S. again in 2008, especially when it was a very severe economic

crisis. It started with the Dot Com bubble (the bubble in U.S. Internet technology stocks) that burst in 2001. The interest rates were cut to stimulate the economy for many years. The prolonged expansionary monetary policy has created competition between banks under the GLBA law, creating bubbles in the real estate and stock markets. There have been several economists taking turns warning of a bubble in the real estate and stock markets since 2005. Nonetheless, real estate and stock prices continued to soar. The question arose as to what factors led to this unreasonable speculative behavior.

Competition in commercial banking, repeal GSA and enact GLBA in 1999.

During 1980-1999, financial business in the countries of the European Economic Area (EEA) had been highly competitive, and banking and financial restructuring had been prepared through mergers and acquisitions (M&As) between credit institutions and cross-border businesses to increase the competitiveness between financial businesses in the EEA and outside the EEA, which can be classified as follows:

Table No. 1 M&As in the EEA

	M&As by Domestic Banks	M&As by International Banks
Between Credit Institutions	M&As between credit institutions based in the same country	M&As between credit institutions that are not located in the same country with one side located in a member state in the EEA.
	M&As by Domestic Group	M&As by International Group
Across Business Fields	M&As between credit institutions and insurance companies and/or other forms of financial institutions where all are based in the same country.	M&As between credit institutions and insurance companies and/or other forms of financial institutions where one side is located in a member state of the EEA.

Source: European Central Bank (2000, p. 20)



In addition to local and international bank M&As, there are also M&As between different businesses, such as the insurance

business, where one party is in the EEA and/or outside the EEA.

Table No. 2 Total Number of Domestic and International Banks Performing M&As

	1995	1996	1997	1998	1999	First half-year 2000
Whole Bank M&As	326	343	319	434	497	234
- Domestic Institutions	275	293	270	383	414	172
- International Institutions	20	7	12	18	27	23
- Institutions in third Countries	31	43	37	33	56	39

Source: European Central Bank (2000, pp.37-39)

All commercial banks making M&As had the highest number in 1998 and 1999 compared to the previous three years. The total number of M&As had increased because of the high number of domestic M&As. M&As in the EEA and third countries outside the EEA in 1999 outnumbered those in 1998, with 80 percent of M&As being internally consolidated. Most international mergers were mergers with institutions in third countries outside the EEA.

It can be further noted that domestic M&As tended to occur between smaller institutions. It was likely that the M&As were the aggregation of excess production capacity. There had been a steady stream of smaller institutional mergers over time. The increasing presence of M&As between the larger institutions pointed to a shift in the power and market structure between larger institutions in many of the EEA countries. Major banking M&As could lower operating costs and have greater spatial risk diversification (Berger, Kashyap and Scalise, 1995, p. 62), meaning more competitiveness compared to U.S. financiers. Thus, M&As in the EEA were a pressure factor that had prompted the U.S. to adjust the financial

business rules set up by the GSA since 1933. As the figures are shown in Table No. 2, M&As was the financial business restructuring following the globalization and deregulation trends. Both trends were the results of advances in technology, such as the Automatic Telling Machine (ATM) and financial innovations such as derivatives (Berger, Kashyap and Scalise, 1995, p. 69; European Central Bank, 2000, p. 22), which had affected the competition in both domestic and international financial business.

The reasons for the merger waves of the U.S. commercial banks during 1980s-1999s divided into 3 phases;

1) The first phase was caused by the downturn in banks and savings institutions during 1980-1989. This period was the period that led to the initiation of M&As and the reduction of the level of FDIC oversight, along with the ban on bank expansion. However, the expansion could take the form of non-bank with full bank services.

2) The second phase was caused by the pressure conditions from the first phase. The pressure encouraged banks to implement the U.S. commercial banks' internal market



strategy, enhancing upscale retail banking services such as mutual fund, insurance, investment consulting.

3) The third phase was due to the pressures from the second phase that led to the links to new overseas markets and non-bank financial markets that spur competition in M&As.

The second and third phases differed in that the focus shifted from national strategy to global strategy and strategy sensitivity. Both phases placed great emphasis on capital markets (Dymski, 2000, p. 7).

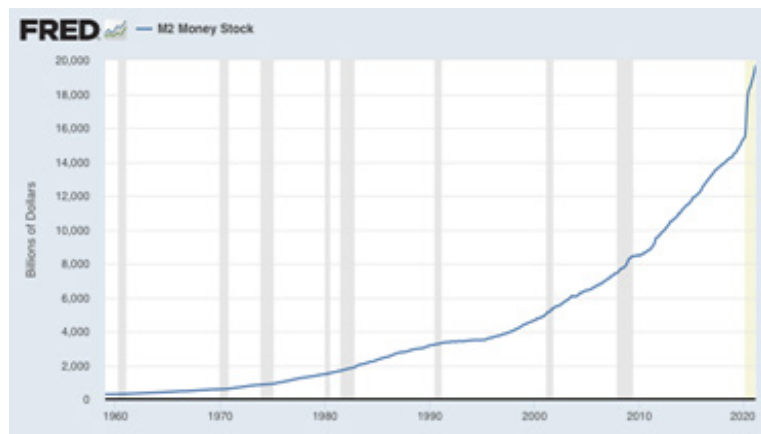
In the U.S., technological and financial innovations increased revenue for financial institutions. Smaller banks hold a higher percentage of derivatives relative to their assets (percentage of derivative value to asset value) from 0.1 percent in 1979 to 0.2 percent in 1994. The same share of the big banks increased from 82.3 percent in 1979 to 114.5 percent in 1994. The ratio of non-interest income to small bank operating income increased from 3.5 percent in 1979 to 8.3 percent in 1994, whereas the same ratio of the big banks increased from 7.0 percent in 1983 to 20.9 percent in 1994. While ATM proliferation reduced the cost of one electronic deposit by sevenfold from 9.10 cents to 1.38 cents per transaction, the number of ATMs increased from 13,800 in 1979 to 109,080 machines in 1994. Despite considerable efficiency improvements, the resulting increase in revenue was not enough to cope with the pressure from the current M&As that occurred in Europe at the same time (Berger, Kashyap and Scalise, 1995, p. 72). This was an important issue that drove the U.S. to repeal

the GSA and enact GLBA to increase the competitiveness of banks and non-bank financial institutions in the country.

Dot Com bubble burst in 2001. The U.S. economy was in recession again. As a result, interest rates had to be reduced to stimulate the economy. The declining yield in the financial sector forced banks to compete for income. The inability to drive Petrodollars to earn returns elsewhere and the rising wave of A&Ms in EEA caused the need for the GSA repeal. The GLBA was enacted to replace the GSA in 1999. This permitted the commercial banks to carry out the investment banking (15 USC §§ 80a-2, 80a-3) and insurance (15 USC §§ 6712, 6713 (c)) activities and to acquire incorporation with other investment banks and insurance companies or have subsidiaries that operate investment banking and insurance businesses (12 USC § 24a). The justification for the amendment was that the GSA and BHCA incurred unnecessary costs and hampered the safety and security of banks by limiting their sources of income. This was the testimony from Robert Rubin, Secretary, U.S. Department of Treasury before the Banking and Financial Services Committee on the Financial Services Competitiveness Act in the 104th Congress (House of Representatives, 1995, p. 58). Under the GLBA, the business competition had led commercial banks to lend to subprime and alt-A customers who may not have sufficiently stable income streams to pay off the mortgage throughout the loan agreement. In addition, the alt-A group earning cash income had no financial history with commercial banks. Both groups (collectively referred to as Nonprime)

were therefore assessed as a high-risk group. However, both groups gave a high return as they paid higher interest rates than people with good records. One of the pressures for banks to hurriedly take high-risk clients was the continued inflow of Petrodollars into the U.S. This money, both the part that was turned into government bonds and the part that was deposited in the commercial banking system, caused banks to compete fiercely for returns. Competition forced banks to find ways to lend. However, the economic downturn, continuing from 1999, had forced the government to issue the economic stimulus measures by reducing interest rates and increasing the money supply known as Quantitative Easing (QE). Besides, there had been increasing in the money supply

at a much higher rate to boost the economy that had been collapsing due to the COVID -19 pandemic during 2019-2021. Picture No. 1 shows that the U.S. has continued to increase the money supply to stimulate the economy. The vertical gray bar represents periods of severe economic downturn, for example at about 1991-1992, 2002-03, 2008-09. During the economic downturn, there would be a huge increase in the money supply to stimulate the economy. By looking at the slope of the money supply curve, the rising slope indicates a higher rate of the money supply increase. The graph line steepens up during 2019-2021, indicating an even bigger increase in the money supply to boost the collapsing economy due to COVID-19.



Picture No. 1 Money supply curve (M2) of the United States

Source: Federal Reserve Bank at St. Louis Web Site (2021)

Financial innovation and complex problems

Competition among commercial banks had led to nonprime lending. This was a financial innovation driven by the GLBA legislation, creating a huge boost in home demand and causing house prices to continue to rise. Speculation pushed the price even higher. Buyers still wanted to buy and sell homes as

prices keep going up. Even if some people couldn't pay the installments, there was still a solution. That is to refinance the mortgage by moving the mortgage contract from the original lender bank to other banks that give a higher appraisal price. The amount above the mortgage payoff is issued in cash for the home buyer and the home finance continues. Thus, there is no NPL in the original lender



bank if house prices continue to rise. The Office of Thrift Supervision (OTS) regulating the lending was aware of the risks that arise in the processes but couldn't do anything because commercial banks had not conducted businesses beyond or contrary to the requirements of the GLBA (Jarsulic, 2010, p. 109).

Until house prices started to reach their highest level around 2007-2008, the housing market started to have excess supply. The price rise had stopped and tended to move downward. Homebuyers began to reassess the situation that if they continued to finance the house, they may end up selling the house at a lower price than the mortgage debt. Thus, they began to sell the house, and some stopped paying installments. As a result, the number of houses for sale accumulated in the market. House prices were even more rapidly falling, causing more buyers to put their houses on the market. Commercial banks had already pushed forward the risk burden. By relying on the channel that the GLBA allows, the banks securitized their debts. They offered the Collateralized Debt Obligations (CDO), which are new investment tools to repay existing creditors. In so doing, commercial banks issued mortgage-backed securities (MBS) by lumping together the high-risk and low-risk loan agreements and then selling them to interested investors. It also provided derivative insurance, namely Credit Default Swap (CDS). Therefore, these investment units were rated with the AAA credit rating, which is the best level of credit rating. The appraisal company was hired by the banks. This MBS had a house as a collateral asset and had a return that came

from the interest paid by the homebuyers. Therefore, when many borrowers stopped paying installments at the same time, the return on investment had disappeared. This, together with falling house prices caused the MBS price to fall rapidly. In addition, MBS were sold speculatively, short selling, causing the nonstop selling of MBS until the drop in asset price had spread to the stock market. The stock market crashed or the stock market bubble burst again in 2008 (Jarsulic, 2010, p. 133). This caused global stock indices to drop to their lowest point in 2009.

So, the repeal of the GSA and the enactment of the GLBA were necessary and sufficient conditions that allowed commercial banks to resume risky behavior and could shift the risk to global investors who demand high returns with insured risks (Charnvitayapong, 2018, p. 172).

Conclusion and Discussion

Picture No. 2 grouped the actions by which the same color led to the same economic crisis. Some actions resulted in more than one economic crisis. Orange shows economic development after WWI wealth leading to the Great Depression in 1929. GSA was enacted in 1933 (See section 3.1) to solve financial problems and prevent the bank risk behavior that could lead to future economic problems. The GSA pressured banks to seek income from abroad through international trade and investment. During that period, the U.S. Government had to have government expenditures supporting stimulus programs so that it needed to have a source of income.



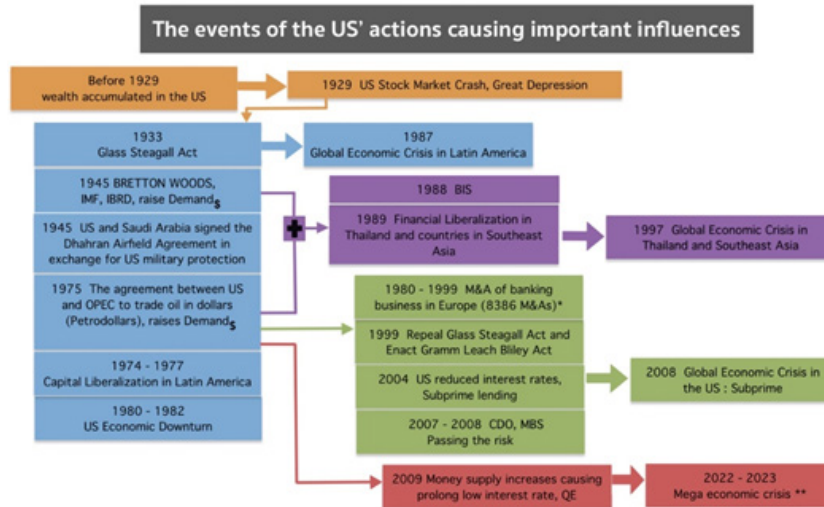
Smooth-Howley Tariff aggravated the problem. This led to the establishment of international organizations: Bretton Woods System, IMF, and IBRD in 1945. They were intended for maintaining the U.S. dollar value and stimulating trade. There was an agreement to establish a U.S. Army base in Saudi Arabia in 1945. There was also the U.S. agreement with OPEC to trade oil in US dollars, originating Petrodollars in 1975. These were followed by financial liberalization agreements with Latin countries. These actions grouped in blue represent the actions and solutions to the U.S. internal economy by legislation. The U.S. economic measures and agreements forced small economies in Latin countries to adjust their financial business rules accordingly. This led to the economic crisis in Latin America. The purple group shows the events leading up to the Asian Crisis. Two events, which were the CL in Latin America during 1974-1977 and the U.S. economic depression during 1980-1982, occurred and ended in the Latin Crisis. Both did not affect other crises. However, there were two events of the blue group: the establishment of the IMF and Petrodollars that created artificial demand for the U.S. dollar. They had a combined effect on the purple cluster events, namely the change in the BIS rules, which stipulates that short-term lending to Asian countries constitutes low-risk lending, and the FL agreement crisis, which led to the Asian crisis. Among these crucial impact factors, the FL is characterized as a necessary condition that led to the economic crisis of Thailand and Southeast Asia. Moreover, Petrodollars in the blue, combined with the events in green, such

as the GLBA enactment (stimulated by competition between European and U.S. banking businesses), and the U.S. economic downturn, caused the Subprime crisis. The GLBA allowed banks to resume risky behavior and could also push risks to other investors. The U.S. economic downturn led to economic stimulation i.e., cutting interest rates and increasing the money supply. All four economic crises impacted the world severely. Especially, Petrodollars is an instrument that the U.S. has invented to have severe and long-lasting consequences. The Latin Crisis, the Asian Crisis, and the Subprime Crisis had all been attributed to Petrodollars, which will continue to have their consequences through international trade. The dark orange indicates that Petrodollars and QE in the U.S. are about to cause another crisis. Since the U.S. has printed nearly \$10 trillion (see Picture No. 1), the QE is about to be withdrawn. Increasing interest rates and decreasing money supply in the US economy will result in the contraction of the US economy and global economies in 2022-2023. This is a pattern preceding the Latin Crisis and the Asian Crisis. After money supply contraction, many businesses had to stop operating because they lacked working capital. This naturally causes interest rates to rise. The higher the cost of finance, the more the people save, the less the product. This will immensely increase the banks' NPLs. Inevitably, the stock market will soon crash, but the problem can get bigger as the quantity of printed money increases. The soon-coming economic crisis is likely to be enormous as Japan and the EU also participated in expanding the money supply. However, this crisis may still be postponed if



the U.S. wages a war or there are other mis- perhaps, such as the COVID mutation that served as a political and administrative excuse for the U.S. to print more money, which will make the

cumulative economic problem bigger.



Picture No. 2 Summary of the events of the United States' actions
source: author

*Numbers from the FDIC, ** The economic crisis is likely to occur again in 2022-2023

The origin of financial law and economic volatility of Thailand and other small economies

The U.S. has had economic troubles in the past and it has spurred the economy to grow far from equilibrium by adding large amounts of money into the economy. It created artificial demand for the U.S. dollar, lowered interest rates, forced money to flow to other countries that have been pressured to liberalize their financial sectors, adjust the rules of business finance and trade to be in line with the U.S. regulation. When the U.S. economy improved, it raised interest rates. Businesses that borrowed money to invest face higher costs. Many of them were unable to pay back the loans. NPLs rose and caused problems for the entire bank system. Eventually, the economy collapsed.

The U.S. financial business law and regulation, and international agreement are the sources of Thailand's financial law

The sub-question of this study begins with the question of why the U.S. can expand the money supply so enormously, as shown in Picture No. 1, without affecting the exchange rate. This occurrence was contrary to the financial economic theory stating that more supply leads to less price. Moreover, why could the U.S. have a huge spending deficit without affecting the exchange rate? The answer to both questions maybe because of the high demand for the U.S. dollar. In particular, the dollar's demand is proportional to the trade surplus. It would take a huge trade surplus to keep the abundant dollar at a stable exchange rate as it is. However, the U.S. has had a negative trade balance from 1995 until now and



the deficit has continued to increase during 1995-2007, decrease during 2008-2020 and increase again after 2020 (FRED 2022). When the movement in economic data cannot be explained by economic reasoning, factors beyond economic theory must be sought.

Since WW I, the U.S. has learned the privileged benefit of being the leader of the world. Therefore, the U.S. must make its economy grow the most in the world. The U.S. solved Great Depression by enacting the GSA in 1933, and after WW II the U.S. arranged the agreements to establish the International Organization i.e., Bretton Woods, IMF, IBRD, and ITO. The objectives were to increase the demand for and stabilize the U.S. Dollar. Later, many countries used the U.S. dollar as their reserve currency. This increased the economic power of the U.S., supporting the printing of a large amount of dollars. Later, when the Bretton Woods system became unfavorable to the U.S., the U.S. withdrew from the Bretton Woods Agreement in 1971, causing the agreement to fall. The U.S. turned to the Petrodollar Agreement, asking OPEC to trade crude oil in the U.S. dollar in 1975. This recreated a new artificial demand for the U.S. dollar, allowing the U.S. to print more money without affecting its exchange rate. Competition among domestic financial institutions in the economic downturn accelerated the establishment of the FL agreement. Afterward, the dollar led to economic crises in Latin America and later in Asian countries. If there were no excess supply of Petrodollars, the financial institutions would not be pressured to lend (recycle) to Latin America and Asia. After the Latin and Asian

crises, capital along with a large amount of returns had retreated to the U.S. and Europe. The financial competition in the EEA drove the repeal of the GSA and the enactment of GLBA in 1999. This allowed banks to earn money from activities that were previously prohibited as high-risk activities. In 2001, the economic downturn hit again. The returns on businesses and commercial banks were declining. The U.S. government wanted to stimulate the economy. However, this time the U.S. couldn't shift its Petrodollars elsewhere. The interest rate cut forced banks to make money from risky lending and pass the risk to other investors. They lent to the nonprime groups with high NPL risk, then issued the MBS investment units that transferred the risk to investors around the world. As the FED increased money supply, problems gradually accumulated in the banking and capital markets. The problem was assessed as non-violent. The regulator who oversees the bank's behavior could not stop the bank's risky behavior because they were not against the law. The economy continued until there was a stumble in 2008. The problem revealed a serious imbalance in the banking system with numerous unseen NPLs. The U.S. stock market index fell sharply and the business sector, including the financial system, stopped operating.

Countries with small economies, including Thailand, have no economic bargaining power. They, nevertheless, wanted to sell products to the U.S. They are pressured to adjust their internal rules and monetary policy following the U.S. The laws and agreements created by the U.S. are necessary



conditions for Thailand and other small countries. They adjusted their financial business laws and business regulations because they wanted to increase competitiveness and joined trade alliances with the U.S. Despite there being other important factors that led Latin American countries and Asian countries into the financial and economic crises, such as Thailand's disuse of flexible exchange rates or neglecting the issuance of measures to regulate commercial banks before the banking crisis, these factors were only necessary and not sufficient conditions. That is, even if there are only necessary but not sufficient factors, the financial crisis would still happen. For example, there exist countries with flexible exchange rates, that had an economic crisis when faced with other forms of financial innovations (such as nonprime lending) that produce large increases in money supply like the effect of the FL. This same situation happened to the U.S.

Thus, we can use the correlation of the continuing sequence of events to infer that the economic policies and solutions of big capitalist countries like the U.S. were the origin of the financial business laws of other countries. The economic policies and solutions manifested in the form of laws, measures, policies that were used to solve domestic economic problems and transmitted as a rule to other countries by international agreement. For example, the evidence can be found in Thailand's laws, such as the Financial Institution Business Act B.E. 2551, and the Compliance to Agreement between the Government of the Kingdom of Thailand and the Government of the United

States of America to Improve International Tax B.E. 2017, etc. This is exactly the case for small economies countries. The main channels through which the U.S. law and economic stimulus policies are transmitted are trade and investment. Countries who want to trade with the economic superpower must adjust their internal laws and regulations to comply with those in the superpower country and enact the act for the implementation of the Trade, Investment, and FL agreement. The effect of monetary policy and economic development propagates to other countries that wish to trade with the U.S. through the banking system, capital markets, bond markets in subsequent periods. International agreements force each member to enact domestic laws following the agreements to properly enforce the agreement.

The U.S., the source of economic volatility in Thailand and other small countries

The U.S., the economic superpower, used economic development measures that created economic volatility and problems for many countries. Some policies solved the U.S. economic problems and created new problems in other countries. The desire to be global leadership forces the U.S. to seek and maintain economic power, including military power. Sometimes solutions have brought new problems back to the U.S. itself. For all four global economic crises, before each crisis, there was a decline in the U.S. business income. The U.S. reduced its interest rates and increased its money supply to stimulate the economy. Banks in the U.S. competed for



income. The establishment of International Financial Institutions (Bretton Woods System, IMF), new financial rules (GSA, Petrodollar Agreement, GLBA), globalization, financial innovations (ATMs) as well as international agreements (FL,FTA) contributes to the distribution of money supply around the world. These gave the U.S. a key benefit which was high demand for the dollar. As a result, there were high demands for the U.S. government bonds, resulting in the U.S.'s ability to incur a lot of public debt, the ability to invest with printable dollars as demand, and the ability to establish economic power, military power. The dollar value was so stable that it was used as a reserve for many countries in the world. During the U.S.'s accommodative monetary policy to stimulate the economy by cutting interest rates, the low return on investment in the U.S. caused huge capital outflow to seek profit oversea. When the economy returns to normal, the Fed decreases the money supply and increases the interest rate. The withdrawal of monetary policy always brings problems to other countries. The root causes of global economic volatility and crises are the U.S. laws, regulations, economic measures, and policy, including U.S. international agreements. These actions are the necessary (necessary factors) and sufficient conditions that yield economic volatility in Thailand and other small countries. Without these factors, the economic crises and economic volatility of Thailand and other smaller countries would not occur as much.

The consequences of rising interest rates after the completion of the U.S. easing monetary policy are about to happen again

this coming year 2029 -2024. The economy of Thailand and small economies would still be affected so strongly that their economic volatility appears like the previous crisis. However, the damage will be more severe according to the size of the US monetary policy.

Why the U.S. can spread economic influence around the world

The U.S.'s influences around the world are due to

1) The U.S. was not ruined by the two world wars. Therefore, there was no need for country reconstruction. The U.S. has accumulated a lot of wealth and has been able to develop its economy immediately after the end of both world wars. The U.S. has been a source of goods for various countries and has created a trade-investment mechanism ready for the expansion of its international trade. The U.S. instituted the Bretton Woods System, the IMF and the IBRD, and the ITO (the cornerstone of international trade development including the agreements to liberalize finance, trade, investment, and the Petrodollar agreement) to create the long-lasting artificial demand for the dollar and the ability to print dollars supporting the U.S. economic powerhouses.

2) The U.S. is a liberal economic system and the largest economy that can attract academic and professional talent from all countries of the world. It enables the creation of many technologies and innovations such as atomic energy, aircraft, spacecraft technology, weapons, internet systems, inventions, and many other intellectual property rights.

3) The U.S. has the military force and weapons (military power) and can



provide military protection to its allies in exchange for other benefits. For example, Saudi Arabia permitted the U.S. to locate its military base in the country in exchange for military protection, and later on, the U.S. asked Saudi Arabia and the OPEC to trade oil in the U.S. dollar.

4) It has a federal democratic system of government that has greatly benefited interstate trade. The U.S. has grown into the country with the most effective governance. The U.S. can use legislation, measures, monetary policy, and international agreement to render the dollar more reliable. The U.S. can print money and incur a lot of debt for the expansion of economic influence.

Conclusion and policy recommendations

Conclusion

This study aims to study whether the financial rules and regulations, international agreements, and economic policies of the U.S. are sources of legal, financial, and economic volatility for small economy countries, including Thailand. As can be seen, the U.S. actions on economic development through the establishment of the organization, internal legislation, and agreement may result in the insinuation that the U.S. has built a network connecting member countries like a spider web. If the U.S. uses monetary policy, the entire economic network will be shaken simultaneously. After the discontinuance of large-scale accommodative monetary policy, one can expect with certainty that economic volatility or economic crises would follow. This result is mostly possible because the U.S. has the largest economy in the world. The U.S.

has been using economic policies to stabilize their economies, such as creating two artificial demands for the U.S. dollars. First, by forming the Bretton Woods Organization, and second by establishing the Petrodollars Agreement, the U.S. was able to print a huge amount and long-lasting stimulus dollars and use this money to support government spending until the sovereign debt is accumulated to be 122.52% of GDP in 2021 (FRED 2022). The U.S. can use an agreement on finance, investment, and trade to set the rules for the agreement member to follow. After signing the agreement, each member's national laws must be enacted following all the provisions of the agreement. Therefore, the U.S. economic policy will be passed through international agreements as the internal law of small economies.

Thailand's changes in financial business laws and domestic rules are in line with the U.S. financial and trade rules and regulations. By this, Thailand's economic cycle has moved in line with U.S. monetary policy. For instance, during 1995-1996, the U.S. stopped stimulating the economy, raised interest rates. Thailand could not adapt to the situation. The financial crisis and economic downturn occurred in 1997. Taking Thailand as an example, other small economies are also in the same situation. That is they experience economic volatility in line with U.S. monetary policy

Policy recommendations

To evade or reduce economic volatility, this study recommends the following:

1) The FL agreement and other international agreements look like contracts that

force people of varied sizes to wear the same size shirt. The rules of big capitalist countries are not suitable for small economies. Full FL will cause the financial market of the small countries to fluctuate tremendously as capital flows in and out of the country. As a small country like Thailand, it is important to study the agreement impacts thoroughly and attempt to prevent the problems rather than to solve the problems. Small countries must be able to adjust the agreement or increase the bargaining clause by requesting a reservation in the agreement. For example, in the case of FL, the small countries must add a reservation or reservations that allow an establishment of emergency measures that may be contrary to the objectives of the agreement. The small countries must raise the ability to defend their economic systems before the crisis. There is no benefit in waiting for a difficult and costly solution to the post-crisis problem. For Thailand who already signed the FL agreement, there must be a request to add reservations in the agreement to allow Thailand to issue measures to prevent capital inflows or outflow before potential economic problems arise. In this regard, Thailand uses a system of dualism, which is the use of international law and internal law separately. For the agreement to be effective internally, Thailand must enact a law for the implementation of the agreement

(International Institute for Trade and Development (ITD), 2016, p. 13). No international agreement can be directly enforced in a country. The problem with using the reservation is that it is difficult to obtain approval to the reserve conditions from all the remaining members (Wei, 1997, p. 124). Therefore, joining an agreement as a group of small economies will have a higher chance of making reservations successful.

2) Asian countries, as well as other smaller economies, are constantly influenced by the monetary policy of large countries like the U.S. (Bowman, Londono and Sapriza (2015, p. 55) and Ahmed, Akinci and Queralto. (2021, p. 27). For example, as the U.S. stimulates its economy by increasing the money supply, and reducing the interest rates to stimulate investment, capital flows to small countries. The small countries' economies will expand accordingly. When the U.S. economy returns to the desired level, the U.S. reduces the money supply and increases the interest rates, capital flows back to the U.S. causing the small countries' economies that receive the U.S. capital to shrink. The small economies as a group should therefore establish the Monetary Fund to maintain their financial stability. Like the IMF, member countries must contribute money annually to set up funds until the target is reached.

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