The role of the international finance in propagating financial crisis

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Summary: In the context of economic globalization, many countries have turnover and use of the monetary funds due to the activity of economic, political and cultural. In this situation, international finance play an important role in propagating financial crisis. The global financial crisis caused by the mortgage of the American subprime mortgage in 2007 was considered to be the worst global financial crisis since the Great Depression of 1929 by the theorists and the business community. However, why the subprime crisis in the United States has gradually evolved into a global financial crisis? why the financial crisis in the United States spread so quickly to the world, and no country exception? The purpose of this essay is to analysis the how the financial crisis could be contagious within the different countries based on the U.S. subprime mortgage crisis.

Keywords: international finance; financial crisis; financial contagion

The following of the essay reviewed the literature of the transmission of the financial crisis, which are monsoonal effects, spillovers effects, pure contagion and herd behaviour. After that, briefly introduce the reason and process of the formation of financial crisis in America and analysis the international contagion of the financial crisis.

1. Literature Review

The transition from financial market turbulence to a recession in the real economy involves a series of transmission processes. However, due to the 24-hour continuous trading in global foreign exchange and stock markets, the speed of financial market globalization accelerates, and countries receive signals of financial crises more quickly. As a result, once a financial crisis erupts, it rapidly spreads from the financial market of one country to another, subsequently impacting the real economy. Below are some ways that can trigger a financial crisis.

1.1 Monsoonal Effects

According to the Masson (1999, p266), monsoonal effects could be defined as crisis transmission due to the common cause. For example, “economic policies implemented in major industrial countries will have similar effects on the economic policies of emerging market countries.” For instance, Deloitte Insights (2023) on Latin America’s economic outlook reveals how global and local interest rate changes influence public expenditure and fiscal balances in emerging economies. Latin American countries, for example, have had to adjust their economic strategies in response to global economic shifts, including those initiated by the US Federal Reserve. Such adjustments illustrate the monsoonal effects where changes in major economies can lead to significant shifts in emerging markets.

1.2 Spillovers Effects

According to the Masson (1999, p266), spillovers effects results from interdependence among developing countries, which means a crisis in one country may have a substantial effect on the macroeconomic fundamentals of its neighbours. It could be divided as two categories. The first category is finance spillovers effect, the other is trade spillover effect. This is because the economic links between one country and other countries are mainly through finance and trade. Therefore, finance spillovers effect and trade spillover effect become two important ways to get contagion of the financial crisis. The World Development Report 2022, particularly its first chapter, illustrates spillover effects by discussing the global economic impacts of the COVID-19 crisis. It highlights how economic challenges in one country or region due to the pandemic led to widespread effects worldwide, exacerbating inequalities and economic vulnerabilities, particularly in emerging economies. The report emphasizes the interconnectedness of global economies and how a crisis in one area can lead to significant financial and social repercussions globally.

1.3 Pure Contagion

According to the Masson (1999, p267), “pure contagion involves changes in expectations that are not related to changes in a country s macroeconomic fundamental.” He said that the literature of pure contagion mainly involved the literature of multiple equilibriums and self-fulfilling. However, these models have been developed only for countries considered in isolation so far.

1.4 Herd Behaviour

The investor will think if one country is suffering the financial crisis, the other country will also have to deal with the financial crisis, which is because investors are lacking the enough information. This is so called herd behaviour. Calvo and Mendoza (1996) has confirmed the information asymmetry due to lack of information is the main cause of the herd effect. In 2000, Calvo and Mendoza claimed that the high cost of dealing with the information is another reason for the herd effect. According to Agenor and Aizenman (1998) and Bhardwaj (2022), most of the small and medium-sized investors can not afford the cost of gathering an processing the information. Furthermore, Huang,Chai and Cho(2020) in their in-depth discussion of the application of deep learning models in finance and banking highlight the complexity of financial data and the need for sophisticated models to effectively interpret this data, indirectly pointing to the high cost of data processing in financial decision-making. This complexity may lead to herding behaviour, as smaller investors may follow the decisions of larger, more capable entities that can afford such advanced analysis. Therefore, during the financial crisis, if the big investors sell the investment portfolio, the small investors will also decrease or sell the investment.

2. The financial crisis international contagion based on the U.S. subprime mortgage crises in 2007

2.1 The reason and process of the U.S. subprime mortgage crises in 2007

The U.S. real estate market witnessed a significant rise in housing prices from 2001 to 2006. However, this increase was not grounded in actual housing demand or supported by income levels, leading to the formation of an asset bubble. Data indicates that the growth rate of housing prices significantly outpaced the rise in disposable income of residents. Consequently, the existence of an asset bubble became an undeniable fact. The bursting of this bubble inevitably triggered a series of chain reactions, culminating in a crisis.

The asset bubble in the U.S. housing market post-2000 was a result of the Federal Reserve's loose monetary policy. Between January 2001 and June 2003, the Federal Reserve cut the federal funds rate 13 consecutive times, bringing it down from 6.5% to a record low of 1% (Pan, 2009). This low rate was maintained for a year, stimulating housing demand and prices, and contributing to the boom in the U.S. real estate market. The prolonged period of low interest rates significantly increased Americans' enthusiasm for buying houses. Simultaneously, the relaxed monetary policy eased the banks' cash reserves, leading to an influx of low-cost capital into the banking system and a strong lending impulse. Driven by the low-interest rate environment, U.S. financial institutions gradually lost their risk awareness, continually lowering the lending standards for subprime mortgages and expanding the scale of subprime lending. By the end of 2006, the scale of subprime mortgages in the U.S. reached $1.5 trillion, with most of it transformed into debt-backed securities and sold to new investors. These investors used them to create derivative products, which were then repackaged and resold. In this context, the U.S. housing bubble continued to expand.

As the U.S. economy began to recover and inflationary pressures mounted, the Federal Reserve raised the federal funds rate 17 times from June 2004 to June 2006, increasing it from 1% to 5.25% (Pan, 2009). The majority of housing mortgages in the U.S. were based on adjustable-rate terms, meaning that the sharp increase in interest rates inevitably led to higher repayment burdens for homeowners. Importantly, subprime mortgages were primarily targeted at speculative borrowers with low credit ratings, lacking income proof, and carrying heavy debts. Their ability to repay was not grounded in their disposable income but rather predicated on the expectation of continuously rising housing prices.

Subprime loans also created a chain of financial innovation. Homebuyers applied for loans from commercial banks and other mortgage lenders. To increase the turnover of mortgages, these lenders sold the loans to entities like the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, and investment banks. Subprime mortgages were bundled into mortgage-backed securities and sold to global investors, including commercial banks, insurance companies, pension funds, and hedge funds, as a means to transfer risk. As a result, when housing prices rose, this benefit chain functioned effectively. All participants in this chain, including homebuilders, homebuyers, lending banks, commercial banks, and investment banks, benefited and were content. Conversely, when housing prices fell, borrowers defaulted, the interest chain broke, and the risk inevitably spread along the chain, causing a 'domino' effect.

2.2 Analysis of the financial crisis international contagion

2.2.1 Trade transmission

A trade transmission refers to the financial crisis in a country that has caused the devaluation of the currency or the decline in the purchasing power of the country. Especially the country which has a closely economic relationship with the financial crisis country. It will lead to a pressure on financial crises to other countries and spread the financial crisis. On the one hand, after the financial crisis in 2007, the US dollar decrease continually. In other words, the currencies of other countries rise continually. The decline of external demand and internal import of US. leading to significant declines of the export from the country which has a closely relationship with U.S. On the other hand, as domestic liquidity in the United States decreases and asset values shrink, major financial institutions are tightening credit. However, Americans who have been spending on credit, have a great uncertainty about the future, which leads to the reducing demand. Therefore, it has a direct effect on decreased the demand for import to the other countries through the income channel. This leads to the profits of exporting countries have fallen and the economy has been affected.

2.2.2 Financial transmission

Financial transmission operates through exchange rates and interest rates, conveyed via foreign exchange and capital markets. In the context of economic globalization, financial markets around the world are effectively part of a unified system. Financial institutions, especially transnational banks, hold substantial positions with one another.

Before 2007, not only domestic investors in the United States but also many countries around the world participated in the process of asset securitization in the United States. Institutional investors, especially those in Western European countries, are integrated into the risk chain of US. The emergence of the crisis in the US financial market will undoubtedly also cause other countries who has invest in the US market to suffer losses. European banks also have a lot of bad assets, and the mutual lending between banks is almost paralyzed. When banks shrink credit, the crisis They spread to each other and gradually spread to the whole world.

2.2.3 Psychological transmission

Investment in financial markets, especially in capital markets, heavily relies on investor confidence. The foreign exchange market sees daily transactions of about $2 trillion, with roughly 97% being speculative, further adding to the uncertainty in market volatility. Financial innovations, such as derivative products, have heightened the risks within the financial system. Rapid advancements in networking and communication technology enable swift completion of capital investments, making financial markets more prone to emotional influences. Investor expectations have also grown significantly. The emergence of negative news can trigger market panic, compelling investors to

reassess the entire market. The psychological panic induced by a financial crisis can spread from the crisis-hit country to the global stage, leading to overreactions by investors and increased market volatility. Prior to the 2007 financial crisis, investors held overly optimistic expectations for the U.S. economy, excessively boosting their confidence and continuously pouring in funds. However, once the crisis hit, investors quickly became extremely pessimistic, swiftly withdrawing from the capital market. This herd behavior intensified the impact of the financial crisis.

3. Conclusion

In the context of global economic integration and the liberalization of financial trade, extensive connections have been established between countries, regions, and within the financial and economic sectors of each region. These connections mean that fluctuations in the financial and economic sectors of one country can have repercussions in another, and this trend of transmission is rapidly increasing. The United States, due to its financial system's relatively lenient regulatory framework and profitability-driven motives for financial innovation, as well as an overly lax credit system, first experienced an internal crisis in its real estate market, which then spread to the entire financial market and the U.S. real economy. The crisis was transmitted globally from the U.S. through trade, financial, and psychological channels. In the current environment of economic globalization, no country is immune to the crisis. Therefore, it is necessary to resist financial crises and reduce their impact on various countries, requiring close cooperation among nations worldwide.

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