From the Subprime Mortgage Crisis to Ant Financial, on How Financial Derivatives “Transfer” Risks

Zhenzhen Jia

Beijing IAlpha Investment Consulting Co., Ltd., Beijing 100101, China.

Abstract: As Chinese financial innovation continues to enter the deep-water area, the management and control of financial derivatives instruments and the strengthening of financial supervision are the foundation to ensure the stability of Chinese financial capital market. Financial innovation or financial technology may accelerate the efficiency and loss in the financial process, but it could not change the most fundamental supply-demand relationship, creditor-rights relationship, financial cycle and other conditions in the financial market. When financial institutions consider using financial derivatives as a tool to expand their income scale, they need to fully consider leverage risk, social systemic risk, and regulatory flaws. From the subprime mortgage crisis to Ant Financial, the advantages and disadvantages, benefits and risks of financial derivatives need to be taken seriously by every participant in the chain.

Keywords: Subprime Mortgage Crisis; Financial Derivatives; Risk Transfer

1. Background

Against the backdrop of the impact of the global epidemic, all parts of the world are actively coping with the recessionary impact of the epidemic. Especially at the capital level, all countries have used active fiscal stimulus programs to help people tide over the difficulties, including financial innovation in the post-EQ era in the United States, using "helicopter money" to stimulate consumption and make up for people's unemployment; Fiscal policies of countries such as "special loan funds" which were directly provided by countries seriously affected by the epidemic to control the economic impact of the epidemic.

In the midst of current epidemic crisis, China has timely controlled the "crisis" of the epidemic to the minimum scope of influence, and gained a valuable "opportunity" of development because it does not require large-scale fiscal stimulus. Both the primary and secondary markets have ushered in strong and continuous capital inflows. On the one hand, the valuation of startups in the primary market has been rising, and on the other hand, the secondary market under the registration system reform has attracted a large number of high-quality startups and unicorns to list on A-shares through the healthy IPO mechanism and the establishment of Science and Technology Innovation Board [1].

Against the background of the above, Ant Financial, whose main business is digital financial services such as digital payment services, consumer credit, financial management and insurance, "officially announced" the launch of its listing plan, just as the outside world was looking forward to the news of Ant's final listing, the risk of its main revenue loan business attracted the attention of the regulatory authorities, thus the listing was suspended.

From the perspective of Internet products, Ant Financial Alipay and other products have played such a role in helping consumers connect with merchants, as well as financial institutions such as banks and insurance companies, lowering the threshold for obtaining information, establishing a multi-party trusted trading platform, and reducing financial fraud and other related behaviors.

However, Ant Financial does not fundamentally solve the problem of financial risks. For example, Ant Huabei does not solve the bad debt rate of banks. Instead, because loan applicants are not subject to strict qualification checks similar to credit card applications, default risk still exists.

The global financial crisis of 2008 may have long been forgotten in people's minds, but the aftermath of that year's impact may still be there and continue to affect everyone in the globalized economy.

2. The Process and Enlightenment of the Subprime Mortgage Crisis

2.1 The main process of the subprime mortgage crisis

In the "asset securitization stage", the main participants are ordinary consumers, banks and financial institutions.

Among them, under the stimulation of low interest rate loans, the benefits of all parties involved:

1) Ordinary consumers (usually refers to real estate buyers) hope to leverage real estate investment with a small amount of funds or even zero cost, and seek to obtain differential income in the continuous appreciation of real estate.
2) Bank income has two ways, one is to obtain loan principal and interest by providing loans to ordinary consumers, the other is that due to the long time required for housing loans, banks package all lenders (whether they are high-quality lenders or not) into bond contracts through asset securitization methods such as MBS and ABS, and send them to SPE-type institutions (Fannie Mae & Freddie Mac) hold, the bank acquire the difference between the loan's principal and interest and the bond contract cost. In the process, the bank released the funds occupied by the loan through asset securitization, and obtained stable income.
3) The rating agency grade the bond contracts held by SPE into tiered (superior/inferior, or A/B/C, etc.) credit ratings to obtain rating fees.
4) Financial institutions purchase assets classified by rating agencies in the market. Among them, high-quality bond assets obtain income that is transferred to financial institutions through ordinary consumers-banks-SPE layer by layer because high-quality home buyers have stable jobs and pay principal and interest on time. or through low-quality bond assets to obtain high-risk and high-leverage returns.

In the process of "asset securitization stage", the entire chain is ordinary consumers - banks - SPE institutions - financial institutions. Ordinary consumers are the real "underlying assets", while from a financial standpoint, financial institutions are the largest risk holders.

It is precisely because financial institutions are the largest risk holders that in the "financial derivative stage", financial institutions learn from the bank's practice, and they hold bonds and other contracts through the help of rating agencies. The assets are packaged into CDOs with good/bad grades and sold to other financial institutions.

In the process of "financial derivative stage", some financial institutions transferred risks to other institutions through CDO, thus obtaining stable and fixed income like banks in the previous stage. The chain in this stage is financial institutions - rating agencies - other financial institutions, and the real underlying assets are no longer the buyers of the previous stage, but the new contract after the buyer's debt securitization, that is, the packaging of the debt contract.

Also, because some financial institutions transfer risks to obtain relatively stable fixed income, there are still some financial institutions facing the risk that the underlying assets cannot be redeemed. In the final "risk transfer stage", smart financial institutions find insurance institutions and "insure" the assets they hold through CDS.

In the process of "risk transfer stage", another group of financial investors appeared. They saw business opportunities. They formed the underlying contracts with the insurance behaviors of other financial institutions, and also made bets with insurance institutions, it is similar to "Naked short selling" in the secondary market. Insurance institutions believe that the default risk of CDO assets is controllable, and they can obtain more premiums out of thin air, so they are very happy to trade CDS.

After the above three stages of asset securitization, financial derivatives, and risk transfer, under the pressure of continuous rising housing prices, the Federal Reserve's continuous interest rate hikes led to a large number of home buyers cutting off their supply, and banks sold the mortgaged real estate in the market. This led to further asset price declines. Since home buyers are the underlying assets in the asset securitization stage, the SPE and the financial institutions that purchased the relevant contracts have no income due to homebuyers defaulting on supply; the impact is subsequently transmitted to the CDO holders in the financial derivative stage, and also the same; in the end, the financial institution that insured the CDO in the risk transfer stage should have received compensation from the insurance institution, but because too many investors bet on CDS defaulted by CDOs, the insurance institutions ultimately cannot pay compensation that far exceeds the company's assets. Ultimately, homebuyers-banks-SPE-financial institutions-insurance institutions-other financial investors loss.

So far, Trillions of housing loans are amplified through layers of leverage and risk transfer from financial derivatives. In the end, participants in the entire chain are almost totally wiped out, and the impact spreads to all parts of the world.

2.2 Enlightenment from the subprime mortgage crisis

Banks have expanded credit in order to secure stable returns, providing highly leveraged loans to homebuyers who do not qualify for loans. SPE institutions should be responsible for the securitized assets purchased and packaged. Rating agencies have also failed to act responsibly by giving inaccurate ratings to a large number of low-quality assets in order to obtain rating fees. Financial institutions misuse financial innovations/derivatives, leading to further magnification of risks through leverage. Insurance institutions allowed other financial investors to copy/amplify insurance contracts in order to earn premiums without holding the underlying subject, and without weighing the potential risks brought about by the insured subject matter, which is equivalent to adding leverage to the risk. The regulatory actions of the regulatory authorities are lagging behind and have not played a supervisory role [2].

3. Potential risks of Ant Financial

3.1 Main business of Ant Financial

According to Ant Financial's prospectus, its main businesses include micro-loans, financial management and insurance. Online banking provides users with credit services such as micro-loans, institutions such as Tianhong Fund provide users with financial management services, and institutions such as Cathay Pacific Insurance provide users with insurance services. Ant Financial charges a portion of the technical service fee in the process of connecting users with merchants/institutions, but the real source of revenue for Ant Financial and the real source of risk are not here.

3.2 Potential risks of Ant Financial

The real income contribution comes from the asset securitization packaged by micro-loan. 1732 billion consumer credit and 421.7 billion small and micro credit constituted a credit scale of 2 trillion, which were sold to other financial institutions through ABS. This process is similar to the first stage in the subprime mortgage crisis, and its chain becomes consumers/small and micro enterprises - banks - Ant Financial - other financial institutions [3].

The risks that can be seen are:

1) Consumers had no credit/ability to repay, non-compliant small and micro enterprises had potential risks of debt default;
2) Banks or other financial institutions caused a large number of bad debts due to default, resulting in financial systemic risks and social unrest;
3) Ant Financial is not only an institution similar to SPE, but also a rating agency in matching transactions of consumers/small and micro enterprises, banks and financial institutions. In fact it does not have a special purpose and the ability to rate;

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