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Mortgage securitization and its credit risk control

Presentata da: **Lebing Wang**

Coordinatore Dottorato **Relatore**

Riccardo Leoncini **Gilberto Antonelli** **Marina Timoteo**

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Abstract

The burst of the mortgage meltdown in the U.S since 2007 is the gravest financial crisis that we have witnessed until now. This dissertation concentrate on the mortgage securitization and its credit risk, which are criticized as the main causes of the crisis. From the point of the veiw of mortgage's evolution, the nature, structure and function of mortgage has been radically changed, yet the mortgage law did not give appropriate response to this market change. Meanwhile, the U.S legilslations facilitating the mortgage securitization also have rotten the legal foundations for mortgage market self-regulation and sustained development. These constitute the institutional causes of the financial crisis. In contrast, the EU covered bond system has kept financial stability for 200 years' time, and their statutory approach has been proved to be able to control the credit risk and incentive problems very well, in combination of market self-regulation and public regulation. So the future reform should be directed to strengthen the market's capacity of self-regulation and improve the public regulation through reducing the improper intervention, such as the homeownership policy of the U.S. For the development of mortgage securitization in China, it is suggested to introduce the EU covered bond system for the reason of the equilibrium between funding efficiency and financial stability.

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I Introduction

A wealth story: How an individual becomes a millionaire within 10 years in China?

In 2000, two Chinese guys were graduated from the same university in Beijing, and one was employed by a private company (hereinafter referred to as Guy A) and the other went to work for a national state-owned company (hereinafter referred to as Guy B). They were very intelligent, got the similar marks in the university courses and enjoyed the same scholarship. In one word, their achievements in the university are nearly the same. However, something different occurred after their employment. Guy B purchased an apartment of 120 square meters in 2002 with the financial assistance from his parents at the price of RMB 3,000 per square meter, and was distributed an apartment of 100 square meters by the state-owned company with a lower price than the first one in 2003. In 2005, he bought a third apartment of 150 square meters with the mortgage loan from a leading commercial bank, in a good zone with the price of 6000 RMB per square meter. Now, these three apartments are estimated with a value of more than 12 million RMB, equal to $1.86 million. In contrast, Guy A just purchased a small apartment of 80 square meters in 2004, which is evaluated with a value of 2 million RMB, equal to $310,000. Because of the high housing price and the current tightening monetary policy on the purchase of the second apartment, it becomes very difficult for Guy B to purchase another apartment for his big family, including his retired parents and his boy.

This is what has happened and is still occurring every day in the bigger cities of china, a true wealth story. Because of various reasons, two university graduates, owning nearly the same characteristics, shared different life experiences and owned different amount of wealth since their graduation. And this is precisely what I will study in this dissertation: In a society where the housing constitutes the main component of the citizens' wealth, what should we do to help the citizens realize their homeownership dream, an urgent need for the new city immigrants in china, especially the Chinese young generations. Is mortgage securitization a possible alternative to finance the housing purchase of the low-and media- income families, as has done in the U.S. and EU? However, the burst of the sub-prime crisis in the American secondary mortgage market told us that the mortgage securitization could be a potential risky business for the reason of financial stability. Recently the China government has decided to re-start its securitization practices. At the same time, the advocates of securitization also admitted frankly that the legal regime governing securitization transactions is still not very well developed[1]. How to develop mortgage securitization in an emerging country is a great challenge for both the decision-makers and the market participants: in the first place, it should make the housing more affordable than before, and at the same time, the financial stability should also be considered in priority. This story is the starting point and the end of the current research.

[1] See the statement of the vice-president, Shiyu Liu, from the People's Bank of China, available at: http://finance.ifeng.com/roll/20110429/3955538.shtml, visiting date: 2011.05.10; Information about the recent development of securitization in China can also be accessible at: http://finance.jrj.com.cn/2012/02/27001712343192.shtml, visiting date: 2012.02.28.

Securitization is one of the most significant and popular legal and financial innovations in the past four decades. It has been the fastest growing form of capital formation because it gives originators of the receivables an additional way to raise capital to finance their operations or to extend credit to consumers[2]. For example, the private label securitization of mortgage loans at the end of 2007 reached up to 2918.2 billions of dollars[3], while there were only 11 billions of dollars of mortgage loans securitized as the end of 1984[4]. However, in the past 5 years we have witnessed the greatest economic meltdown as a result of the sub-prime crisis since the Great Depression. Many financial institutions have suffered great losses because of the plummeting house price and increasing mortgage defaults , and some leading financial institutions have disappeared, been nationalized or been merged by their competitors in the marketplace. The most exploding event may be that the Federal Housing Finance Agency (FHFA) placed Fannie Mae and Freddie Mac, two government-sponsored enterprises (GSEs) that play a critical role in the U.S. home mortgage market, in conservatorship on September 7, 2008. With the decrease of credit supply, the housing prices have plummeted and homeowners lost an estimated $ 3.3 trillion in equity in 2008[5]. Because of the serious delinquency and foreclosure of mortgages, the U.S federal government had to initiate some federal programs to help those families. For example, the "Making Home Affordable" program announced by the Treasury in early 2009 is aimed at using federal subsidies of up to 75 billion dollars to modify millions of home loans[6]. However, these efforts are criticized for imposing burdens to the taxpayers to satisfy the irresponsible banks and families. In the following parts of this dissertation, we will try to reveal why this financial crisis has occurred, how to control the financial risk arising from the mortgage securitization and how to develop a efficient and healthy secondary mortgage market in China.

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[2] Thomas E. Plank, The Security of Securitization and the Future of Security, 25 Cardozo L.Rev. 1655, 2004, P1656.
[3] See Board of Governors of the Fed. Reserve System, Flow of Funds Accounts of the United States: Annual Flows and Outstandings 2005-2007, at 71, tbl.L.126 ll. 5, 9 & 10 (Sept. 18, 2008) , available at http://www.federalreserve.gov/releases/z1/Current/annuals/a2005-2007.pdf, visiting date 2010.10.09.
[4] See Board of Governors of the Fed. Reserve System, Flow of Funds Accounts of the United States: Annual Flows and Outstandings 1975-1984, at 71, tbl.L.126 ll. 5 & 10 (Sept. 18, 2008) , available at http://www.federalreserve.gov/releases/z1/Current/annuals/a1975-1984.pdf, visiting date 2010.10.09.
[5] Kurt Egger, The Great Collapse: How Securitization Caused the Subprime Meltdown, 41 Conn. L. Rev. 1257, May, 2009.
[6] U.S. Department of the Treasury, Making Home Affordable: Updated Detailed Program Description (Mar. 4, 2009), available at http://www.treasury.gov/press-center/press-releases/Documents/housing_fact_sheet.pdf. visiting date: 2010.05.08.

1.1. Background: Residential mortgage securitization and the financial crisis

1.1.1 Mortgage, housing finance and the economy

Using real estate to secure the financing transaction is a durable human institution of long history because of its stable value and permanent physical existence. Real estate is a fundamental form of property since the beginning of civilization and various financing instruments have been developed so as to fund the economic activities utilizing the great value of real estate, for example the mortgage popular in the common law countries, the hypothec in the continent Europe, the land obligation in Germany and the other similar institutions[7]. In mortgage law, these institutions are generally titled by "lien over immobile properties" and they were structured differently in various periods in the history. Here I do not want to take much time to discuss the theoretical differences of mortgage and hypothec[8], while I prefer to study their common essential economic substances from the perspective of law and economics, particularly from the perspective of law and finance. And this essential economic substance of both the civil law hypothec and common law mortgage is to secure the performance of obligation using the value of real estate, and in case of default, the creditor can enforce its security rights over the encumbered lands or buildings through force auction. For this reason, the term "mortgage" will be generally used to indicate the above mentioned mortgage and hypothec in the two legal systems which are utilized as instruments to fund the economic activities through the real estates' security function. For the reason of comparative study, mortgage (both the common law mortgage and civil law hypothec), together with land obligation and the other similar institutions, will be covered in this research.

Practically mortgage over real estate is a primary mechanism for extending credit in the

[7] For example, the deed of trust is widely used in the common law countries, which is a tripartite transaction. In the civil law system, the reservation of ownership is similarly used to secure the performance of obligation.

[8] In common law systems, there are three main schools regarding to the nature of mortgage: title theory, security theory and the intermediate theory. And the title theory has dominated the academy over centuries and still has a great influence in the academy. With respect to the title theory of mortgage, the lender was completely granted the legal title of the debtor's real property, subject to a subsequent condition under which the debtor could re-enter and re-vest himself with the legal title upon the due performance of his obligation to repay the borrowed money. While in the civil law system, the hypothec is typically considered as a limited real property right in theory.

modern society, and it has always been employed as the principal instrument to finance real estate acquisitions, provide liquidity and raise capital over centuries. And it has been proved to be successful in satisfying the financial needs of people with different types of real property in different history period and economic patterns, agrarian economy, industrial economy and the current financial economy.

As an important security interest over immobile properties, mortgage owns the following two advantages from the point of view of law and economics: (1) The comparative stability of value. The economic value of the lands and its fixtures (mainly residential or commercial buildings) are comparatively stable relative to the other assets, even though there always occurs the housing bubble in the modern history. And the investments in real estate are generally considered as a good choice for the preservation of family wealth. (2) The strong protection from law. This advantage derives from its recording in the public registry, which is used to determine the existence and priority of the creditors' lien over the real property. The lenders or other parties can look to the information in the registry, check whether there exist any encumbrances over the lands or buildings, and thus decide whether to do the transaction with the borrower or no. It is also notable that this reasonable reliance on the information from registry is protected by the law[9], even if the actual legal status of mortgaged immobile is not the same as shown in the registry.

At the same time, mortgage has always been a successful instrument for stimulating economic development. The modern housing sector is critically important to stead economic development and stability. As we will discuss in the second part, even early in the 1770's, mortgage had been utilized as a financing instrument for saving the bankrupt Prussian economy. And this model was further developed in the form of Pfandbrief in Germany, which was employed to provide fund for house building, buying and at the same time stimulating the economic development. In U.S, the proliferation of mortgage-based securities has greatly changed the economic structure and modernized its financial sector. More important is that the major economy bodies are involved in the secondary market of U.S, such as the European countries, China, Japan, India and so on. Currently, the housing sector is greatly integrated into the whole economy, especially closely connected to the credit market and capital market,

[9] German civil code (BHB), article 892 and 893. China real property law, article

and consequently the financial stability is determined, to a great extent, by the changes in the housing market.

As an important real estate financing instrument in the modern society, mortgage provides transaction participants the opportunity to convert the illiquid assets into cash and it excludes the risk of a (second) lawsuit against the surety (who may be unwilling to pay), or of being faced with his financial collapse too[10]. And the mortgage has evolved to adapt to the changing legal and economic environment in order to retain its utility in commercial life throughout centuries, from the agriculture era to the industrial economic era and finally to the current financial economic era. In different periods, however, the relationship between land and the mortgage transaction participants was structured distinctly.

In the current financial economic era, financial innovations parallel with industrial production as the engine of economic growth[11]. Particular attention should be paid to the interplay between the financial markets and the real estate markets. In 2005, global financial assets (including banking assets, stock market capitalization, and bond market value) were calculated at US $ 165 trillion, a sum nearly four times the global GDP[12], and mortgage debts has comprised one of the largest single categories of in the American national-debt structure. For example, as illustrated by table 1, the market value of the total mortgage loans has been equal to that of GDP in U.S during the period between 2007 and 2009. The current liquidity crunch in the American economy is partly the result of the stock market being impacted by the collapse of the mortgage market. So in the 21 century, the economists must look not just to the stock market but to the mortgage market to determine the financial health of the economy.[13]

[10] As is evident both from the standard of jurisprudential analysis and the amount of legislative activity, personal security was much more important in Roman law than it is today. Today creditors usually prefer real security. See Reinhar Zimmerman, The Law of Obligations: Roman Foundations of the Civilian Tradition (1990), P115.

[11] At the same time, the over-development of financial sectors has also brought about the concern that the real industries would be hollowed, as a result of the flow of capital from real industries into the capital markets.

[12] Aaron Unterman, Innovative destruction—Structured Finance and credit market reform in the bubble era, 5 Hastings Bus. L.J. 53, Winter, 2009.

[13] See Peter M. Carrozzo, A new deal for the American mortgage: the home owners' loan corporation, the national housing act and the birth of the national mortgage market. 17 U. Miami Bus. L. Rev.1, Winter 2008.

Table 1 U.S Mortgage Debt Outstanding (Millions of dollars)

Amount / Year	Total	One- to four- family residences	*Multifamily residences*
2004	10,663,749	8,269,026	*617,866*
2005	12,101,261	9,380,898	*688,344*
2006	13,487,850	10,433,398	*706,619*
2007	14,568,485	11,167,193	*786,838*
2008	14,605,718	11,070,492	*837,333*
2009	14,320,323	10,861,535	*848,855*
2010	13,819,764(Q4)	10,531,174(Q4)	*840,057(Q4)*
2011(Q1)	*13,724,679(Q1)*	*10,457,601(Q1)*	*840,152(Q1)*

Source: Federal Reserve[14]

Consequently, we can observe that the mortgage industry, including the mortgage-based financial innovations, has made a great contribution for economic transition from the industrial economy to the financial economy, and it plays an increasing important role in the economy of both the developed countries and the developing countries. Among these financial innovations, the **Mortgage Securitization**, as a well-established technique financing the non-tradable and therefore non-liquid mortgage assets, is of special importance to the residential housing finance and capital market. With roots dating back more than two centuries, securitization has boomed over the last four decades since the late 1970's. With the establishment of the secondary mortgage market and the proliferation of mortgage securitization, the mortgage has been transformed from a stagnant lien into marketable commodities. As one of the most significant financial innovations in the global capital market, mortgage securitization continues to evolve and expand until the burst of the sub-prime crisis

[14] See http://www.federalreserve.gov/econresdata/releases/mortoutstand/current.htm

in 2007. The current financial crisis provides us a good opportunity to make a specific examination of mortgage law, mortgage loans, mortgage-backed securities and mortgage markets, both primary and secondary[15].

On the other side, the mortgage securitization practices in U.S and the other economy bodies has brought about great changes to the relating laws, such as mortgage law, bankruptcy law, regulation law and etc. The development of the mortgage industry, especially the residential mortgage securitization, has led to an increasing social importance of the mortgage law, and more families and national wealth are becoming affected by it. Although the segment of real property law had been peculiarly resistant to innovation over centuries, the mortgage law has initiated its modernization process because of the combined pressure of government intervention and market needs. Usually the law follows the steps of the market's needs, although the speed with which the law follows varies greatly. At the same time, legal evolutions bring about great changes to the market too. So it is convenient to observe the interplay between law and financial innovations in the secondary mortgage market as we will demonstrate in the following chapters. We will find that while mortgage securitization has become more attractive today, it has remained a double-edged sword, beset with both new and old flaws and dangers.

Since its inception, the mortgage law has involved to pursue the equilibrium between the individual debtors and creditors for centuries so as to maintain a stable borrower-lender relationship which are useful to keep the economic stability of the community. In a society where the participants of transaction were acquainted with each other, the mortgage, in combination with the integrity and reputation of the borrower, secured the performance of the underlying obligation[16]. Now with the proliferation of securitization, mortgages have become a mean whereby income can be obtained without the risks of ownership for the most part, and there has been a shift in emphasis from a personal relationship predicted on acquaintance and

[15] As a commentator has said ironically, "with so many fundamental changes, opportunities for moral hazard, agency cost problems, consumer abuses, and impending lawsuits, perhaps the only group with plethora of opportunities are law professors looking for salient article topics". See Christopher L. Peterson, Foreclosure, subprime mortgage lending and the mortgage electronic registration system, University of Cincinnati Law Review, Vol. 78, No. 4, 2010, it is also accessible at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1469749.

[16] According to Powell on Real Property, the author holds that the integrity and reputation of the borrower were the primary security of lender; and the pledged land served only as an emergency safeguard.

the solvency of the borrower to an investment approach[17]. With the establishment of the secondary mortgage market, the residential mortgages become tradable commodities in the capital market. The individual peculiar mortgages have been standardized so as to facilitate the commoditization of them. However, the mortgage law did not give timely and right response to these market changes, and the new market and the governance of obsolete legal regime will contradict with each other, as what have happened in the financial turmoil such as the Great Depression since 1929 and the current sub-prime crisis. So how to establish a efficient and scientific legal regime governing the dynamic and changing market is still a great challenge for us.

1.1.2 Housing policy's effect on the Mortgage lending: Homeownership and government intervention

Homeownership[18] is of great importance to the social stability and the culmination of family wealth. It is also an important indicator which is used to measure the housing conditions of one country. While houses most commonly serve as shelter, they also serve as a forced savings device[19]. For these reasons, the governments of most countries have intervened[20] in the housing market by adopting various measures to improve the housing conditions for citizens and raise the homeownership rate of families, especially for those low-and-medium-income ones. Thus the housing finance systems are greatly influenced by its administration's housing policy purporting to promote the homeownership, while the housing policies adopted and implemented by the governments has great effect on the housing purchase and housing finance system. However, this effect will be positive or negative

[17] See Powell on Real Property, §37.04.

[18] How do the government and scholars calculate the homeownership rate? Is it true that once the buyer bought the house with mortgage loan, the house buyer will be treated as a true owner and thus is calculated into the homeownership rate? Ownership is "the bundle of rights allowing one to use, manage, and enjoy property, including the right to convey it to others." Yet because of the existence of the mortgage, the buyers' ownership is not absolute and exclusive ownership, and subject to strict limitations; and the right is contingent upon the repayment of the loan supported by the mortgage and their "equity" in the house gradually grows.

[19]

[20] As we will discuss in the following parts, governments intervene in housing markets to ensure people's equitable access to housing, including fiscal measures, such as taxes and subsidies; the direct provision of social housing or rent allowances; financial assistance programs to improve families' purchase ability; and various regulations influencing the quantity, quality and price of housing. This research will focus on the financial assistances provided to families, especially the mortgage-based financial innovations.

depending upon whether they are badly-designed or well-designed, because housing policies played a disgraceful role in triggering the recent financial crisis.

1.1.2.1 Homeownership: The American dream

The strength of the American economy has deep roots in its history of widespread property ownership. In 1862, President Lincoln signed the Homestead Act with purpose of promoting property ownership. This act provided protections for the family homestead from the claims of creditors and launched a scheme of massive land distribution at extremely low cost to those who were willing to move west[21]. According to this act, the would-be homesteaders had the chance to claim 160 acres of public land if they farmed it for five years and built a home on the land[22]. So this act distributed the public lands to the private individuals, and conferred them a valuable asset. The impact of this act has been massive: it gave millions of people the potential for economic independence, and constituted the foundation for the much of today's current homeownership[23].

The former U.S president Hoover has stated that "homeownership is our national idea and we expect renters to strive for homeownership". It is deeply believed that homeownership carries with it important advantages both for individuals and society. For the individuals and families, they can gain independence from the renters or a landlord, get freedom from eviction and increased rent. At the same time, the homeownership has been associated with increasing life satisfaction, psychological health and self-esteem, better and safer neighborhoods, and better schools for the children. It is also a source of societal status and a significant means of defining identity[24]. In addition to these psychological and societal benefits, homeownership also owns financial benefits, for example home equity is a significant component of household wealth, which could be used by the families to confront misfortunes through the re-financing against their home equity; the home equity could also be refinanced to fund the economic activities of the families. These are the obvious benefit that

[21] Harold J. Krent & Nicholas S. Zeppos, Monitoring Governmental Disposition of Assets: Fashioning Regulatory Substitutes for Market Controls, 52 Vand. L. Rev. 1705, 1720,1999.
[22] See, 12 Stat. at 392.
[23] Jonathan Miner, The mortgage crisis in historic perspective: is there hope? 36 J. Legis. 173, 2010.
[24] Kristen David Adams, Subprime Mortgage and Discriminatory Lending: Homeownership: American Dream or Illusion of Empowerment? 60 S.C. L. Rev. 573, 2009.

homeownership has given to the individuals and families. From the economic perspective of the society, the widespread homeownership is a significant source of economic might. As economist Hernando de sotto has studied, the clear system of property rights is the core reason that American capitalism got success while the other former colonies have failed economically[25]. Another reason of the economic development of the American economy is the creation of the land title records which made it very easy for property to transfer between market participants with little legal risks. It provided security and flexibility for the prospective buyers of real estate. Consequently, a thriving banking sector developed, in which people were able to use their real property securing the loans.

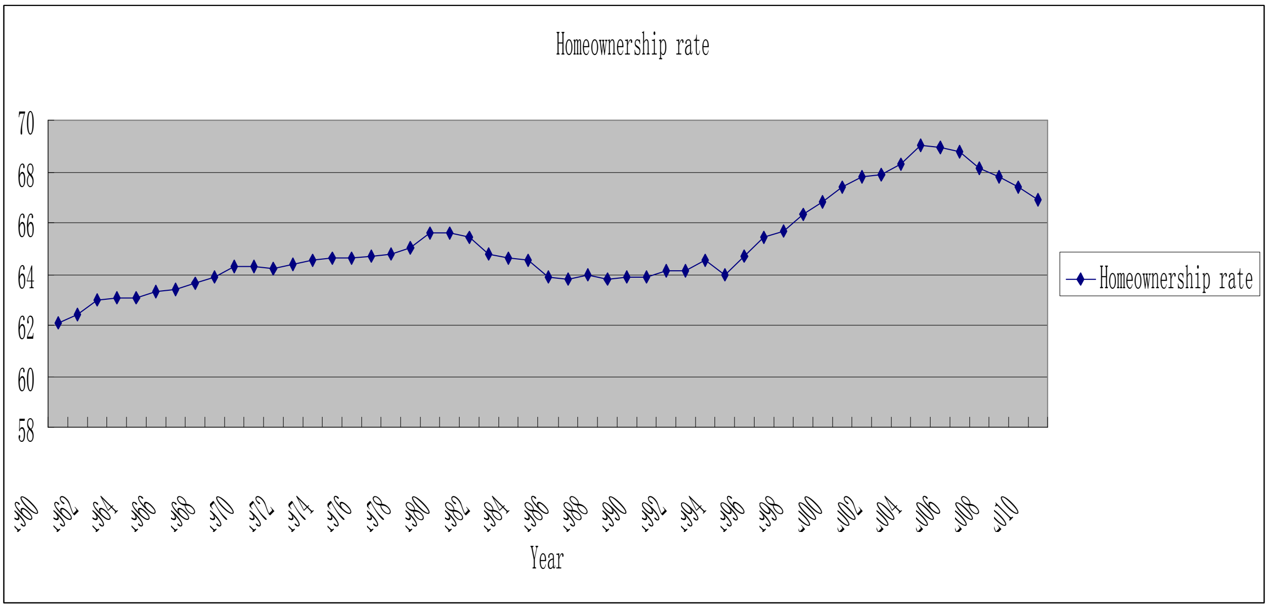
At the same time, the American congressional allocation of funding shows a strong preference for homeownership over rental housing. The federal government has been funding homeowner subsidies at ever-higher levels that exceed the HUD's entire operating budget. However the homeowners, especially the high-income homeowners, receive most of the country's housing subsidies. In 2003, the federal government spent almost twice as much in housing-related tax expenditures and direct housing assistance for households in the top income quintile than on housing subsidies for the lowest-income households. Clearly, the homeownership preference has encouraged the construction of single-family homes in place of affordable rental housing, despite of the greater need for the latter[26].

As shown in the following graphic, we can examine the change of U.S homeownership rate since 1960 at which point the United States Census Bureau began to track the aggregate homeownership statistics. Homeownership has been growing at a very slow pace since the 1960s.

Graphic 1 The change of homeownership in the U.S.

25 Hernando de Soto, The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else, 2000. De Soto is one of the leading economic scholars studying the importance of widespread property rights as a precursor to economic development.

26 Kristen David Adams, Subprime Mortgage and Discriminatory Lending: Homeownership: American Dream or Illusion of Empowerment? 60 S.C. L. Rev. 573, 2009.



Source: Homeownership Rates of U.S: 1960 to 2010, U.S Census Bureau, Annual Statistic 2010[27].

The homeownership rate has risen about 7% in the past 50 years, from 62% to the highest point of 69% in 2004. And for the reason of the financial crisis, it has declined sharply as a result of increasing foreclosures. Until the second quarter of 2011, the homeownership rate has greatly declined to 65.9%[28].

Now, the policies aimed to promote homeownership are no longer distributing vacant lands to eligible families, rather helping families buy their own houses with the financial assistances from the government and the banks. Mortgage is an important instrument to realize this purpose. In this research, we will investigate how the U.S. mortgage markets, especially the secondary mortgage market, has helped the American families to realize their"American dream". There are two main aspects to be studied: the programs assisting the low- and medium-income families to buy houses; and the programs assisting the low- and medium-income families to avoid foreclosure during the financial crisis. Precisely speaking, the modern housing system originated since the great depression in the 1930's. Since then the American federal government began to establish series of institutions and programs assisting the American families, especially the low- and medium-income families, to own their houses.

[27] http://www.census.gov/hhes/www/housing/hvs/annual10/ann10ind.html
[28] See Table 14. Homeownership Rates for the US and Regions: 1965 to Present, Housing vacancies and homeownership, http://www.census.gov/hhes/www/housing/hvs/historic/, Visiting date: 2011-10-14

1.1.2.2 Democratization of homeownership and the current crisis

Affordable housing is a commodity that is perpetually in short supply in the United States[29]. The federal government has addressed the need for affordable housing through various subsidization programs, however, the improvement of housing situation in the neighborhood is limited as result of the shortage of fund and mismanagement of the housing Authority. Later, the federal government has turned to a market-driven, private development approach, with less government involvement in the financing, development, and management of affordable housing[30]. The secondary mortgage market is usually utilized to implement the federal housing policy.

In 1992, President George H.W. Bush signed the Housing and Community Development Act. The Act amended the charter of Fannie Mae and Freddie Mac to reflect Congress' view that the GSEs "have an affirmative obligation to facilitate the financing of affordable housing for low-income and moderate-income families." For the first time, the GSEs were required to meet "affordable housing goals" set annually by the Department of Housing and Urban Development (HUD) and approved by Congress. The initial annual goal for low-income and moderate-income mortgage purchases for each GSE was 30% of the total number of dwelling units financed by mortgage purchases and increased to 55% by 2007. The mission of the GSEs to serve the policy goal of universal homeownership was confirmed by the American Home Ownership and Economic Opportunity Act of October 2000. These legislations promoted the homeownership at the expense of GSEs increasing exposure to residential mortgage loans not satisfying their own underwriting standards for conventional, conforming loans[31].

On June 17, 2002, President George W. Bush declared that "there is a home ownership gap in America. The difference between Anglo American and African American and Hispanic home ownership is too big (White House, 2002). The goal was to increase minority homeowners by at least 5.5 million by 2010. In 2003, president Gorge Bush signed the

[29] Allison D. Christians, Breaking the Subsidy Cycle: A Proposal for Affordable Housing, 32 Colum. J.L. & Soc. Probs. 131, Winter, 1999, P132.
[30] Henry G. Cisneros, The State of American Cities, 16 St. Louis U. Pub. L. Rev. No. 2, 251, 259-60, 1997.
[31] Jay Surti, Can Covered Bonds Resuscitate Residential Mortgage Finance in the United States? IMF Working Paper, December 2010, P3.

American Dream Development Act through which provided financing for low-income first-time buyers. The program aimed to assist these buyers by providing funds for down payments, closing costs and other expenses[32]. The democratizing home ownership can be realized through amortization, sound mortgages, government guarantees, secure investments to lenders and enhanced liquidity[33]. In August 2004, the White House produced a document surveying President Bush's achievements. The document stated that "the US homeownership rate reached a record-high 69.2 percent in the second quarter of 2004.

Unfortunately, the short-lived increase in homeownership was followed by a record high foreclosure avalanche that has pushed the U.S. economy into one of its worst financial crises since the Great Depression.[34] The reason is that the democratization of homeownership or the promotion of homeownership has become an unmoral technique which was used to exploit the low-and-medium-income families through financial innovations. The rising inequality since the 1980s formed the breeding ground for the current financial markets meltdown. One notable phenomenon to democratize the homeownership is the expansion of mortgage loans eligible for securitization since the 1970's as we will show in the second chapter, from the agency loans to conventional loans, and finally the Alt-A and subprime loans, so as to supply enough mortgage loans for the increasing securitization transactions[35]. The robust demand by investors for the high yields offered by subprime loans stimulated the growth of a market for securities backed by those loans[36].

This expansion has impacts on the housing finance system in two separate aspects. In a positive view, an abundance of available mortgage money would democratize homeownership for the middle class. And it could also bring prosperity to Americans and stimulate the economy. In a negative point of view, it offers more money-making opportunities for the

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32 http://www.hud.gov/offices/cpd/affordablehousing/programs/home/addi/ (last visited 2011-8-11)

33 Peter M. Carrozzo, A new deal for the American mortgage: The home owners' loan corporation, the national housing act and the birth of the national mortgage market, 17 U. Miami Bus. L. Rev.1, Winter 2008.

34 Fadhel Kaboub, Zdravka Todorova, and Luisa Fernandez, Inequality-Led Financial Instability: A Minskian Structural Analysis of the Subprime Crisis, International Journal of Political Economy, vol. 39, no. 1, Spring 2010, P3–27.

35 Homeownership, to a great extent, now is only the desirable target for the interest groups including the banking industry, the politicians, the other sectors closely associated with the real estate, not for the lower income families. For the banking industry, the housing market for higher income buyers was virtually saturated. So the banking industry changed its operation strategy to some extent, deviating from the higher income buyers to the lower income borrowers due to the banks' need to explore new market, rather than the borrowers' ability to repay the loan.

36 Financial crisis inquiry commission, The financial crisis inquiry report: Dissenting statement, P455.

mortgage industry participants, including mortgage bankers, credit rating agencies, insurance companies and the investment banks. For them, more securitized mortgage loans mean a steady excess profit. The breed of the financial institutions, especially the investment banks, provokes them securitize more mortgage loans so as to make more profits. For this reason, what we observe today is only the manifestation of the ingenuity of the market in taking advantage of moneymaking opportunities, regardless of the consequences. The impulse of profit-maximization led to an increase in the incidence of abusive predatory lending[37] in the mortgage market, especially in the sub-prime lending market. The financial exploitation was implemented in the name of "democratization of homeownership" for the low- and medium-income families. And the sudden turn in market expectations led investors and banks to reevaluate their portfolios, which brought about a credit crunch and widespread economic instability[38]. The so-called "democratization of homeownership" rapidly turned into record-high delinquencies and foreclosures. A major reason for this financial winter we are witnessing is that the market for housing purchase has been systemically violating core principles of justice[39]. It is the unjust financial transactions cause the current financial turmoil.

So we could conclude that the U.S housing policy has played an important role in the financial crisis, or "the sine qua non of the financial crisis was U.S. Government housing policy", which led to the creation of 27 million sub-prime and other risky loans---half of all mortgages in the United States[40]. The rise of homeownership is at the expense of the reduction of the mortgage underwriting standards, the loosening documentation requirement, the lower LTV ratio, less down payment o even zero down payment. The result is that the quality of the loan deteriorates, and thus the American Dream has turned into the American

[37] Predatory lending generally describes fraudulent practices involving loan originations and also loans with terms and practices that use inappropriate risk-based pricing. Fraudulent or illegal predatory practices (all of which are illegal under existing laws) include forging loan documents, misrepresenting the borrower's income, backdating documents, failing to disclose information required by federal or state laws, and inducing borrowers to apply for loans to pay for home improvements which either are never done or are improperly done. With particular reference to the terms of loans, the interest rates are significantly higher than needed to ensure against the risk of borrower default. A mandatory prepayment penalties, which charge borrowers who pay off (or refinance) loans early, also appears in the predatory lending practices. See A. Mechele Dickerson, Bankruptcy and mortgage lending: The homeowner dilemma, Fall, 38 J. Marshall L. Rev. 19, 2004, P31.

[38] Luisa Fernandez, Fadhel Kaboub, Zdravka Todorova, On Democratizing Financial Turmoil: A Minskian Analysis of the Subprime Crisis, Working Paper No. 548, The Levy Economics Institute of Bar College.

[39] Brian M. McCall , Historic perspective on the subprime crisis: Learning from our history: Evaluating the modern housing finance market in light of ancient principles of justice, 60 S.C. L. Rev. 707.

[40] Financial crisis inquiry commission, The financial crisis inquiry report: Dissenting statement, P454.

Nightmare because of predatory practices involving some subprime lenders[41].

1.1.3 Mortgage securitization and mortgage market

Typically, the mortgage securitization could be divided into statutory mortgage securitization and structure mortgage securitization. The statutory mortgage securitization is more popular in EU, namely the covered bond in most of the EU state members, such as the Pfandbriefe in Germany. While the later could be redivided into agency and GSEs-backed securitization, and private-label securitization. In the following analysis, we mainly concentrate on the U.S mortgage securitization theory and practices since the Great Depression, make a comparison between EU covered bond and U.S MBS, and try to find some policy suggestions for cure the financial crisis and keep financial stability from the comparison.

1.1.3.1 The definition of securitization

Although securitization is widely discussed in the legal and financial literature, no uniform definition has described it satisfactorily. In short, securitization is a financial process by which converts pools of cash-flow-producing financial assets, such as mortgage loans, auto loans or credit card debt obligations, into securities hold by public investors in the capital market. With particular reference to the mortgage securitization, it allows the mortgage originators to sell the illiquid mortgage loans in return for liquid cash, and thus improve its capital adequacy. This financing technique was developed to address the problem of insufficient mortgage capital, then was adapted and expanded by participation in the private markets to facilitate many types of consumer and commercial borrowing[42]. Securities backed by mortgage loans are called mortgage-backed securities (MBS) which are further divided into residential mortgage-backed securities (RMBS) and commercial-backed securities (CMBS) according to

[41] A. Mechele Dickerson, Bankruptcy and mortgage lending: The homeowner dilemma, Fall, 38 J. Marshall L. Rev. 19, 2004, P20.

[42] Faten Sabry & Chudozie Okongwu, Study of the Impact of Securitization on Consumers, Investors, Financial Institutions and the Capital Markets, NERA Econ. Consulting, P16, Available at http://www.americansecuritization.com/uploadedFiles/ASF_NERA_Report.pdf.

whether the nature of mortgage is residential or commercial[43]. The RMBS is usually structured as a different type of security from that of CMBS. Meanwhile those backed by other types of receivables are asset-backed securities (ABS).

The key to understand the feature of “asset-backed” or "mortgage-backed"is as following: the investors of these securities are only exposed to the risks of the asset pool not the risks of the originator company’s business[44]. The public investors have only claims on the underlying assets of securitization, not on the assets of the originator company’s asset. The credit rating of these securities is based solely on the quality of the asset pool. In this respect, there exists a “mutually exclusive” relationship between the originator and public investors with respect to each other’s estate, that is to say: the originator would not have any direct claim on the receivables, nor would the investors in the securities issued by the SPE or the SPE itself have any claim against the general assets of the originator, except to the extent of credit support described later[45]. And the cash flows deriving from the asset pool are used exclusively to repay the investors. So the investors are not concerned with the generic risks of the originator company, because even the bankruptcy of the originator exposes no legal risk to the public investors.

The reason for the difficulty in constructing a uniform definition of securitization is that the term is used to describe various financial transactions, from the basic mortgage-backed securities to a complex offering of multiple layers of debt and equity interests in a single asset or pool of assets[46]. Because we just study the basic mortgage-backed securities and its relationship with the mortgage law in this thesis, it is not necessary to spend much time to make a perfect definition of securitization, important is that we understand very well the mechanism through which the mortgage securitization operates in the capital market.

The surge of securitization can be attributed to a various legal and economic stimuli, such as deregulation of regulation, favorable tax law and bankruptcy law, technological

[43] Usually a residential mortgage-backed security (RMBS) is secured by single-family or two to four family real estates, while a commercial mortgage-backed security (CMBS) is secured by commercial and multifamily properties, such as apartment buildings, retail or office properties, hotels, schools, industrial properties and other commercial sites.

[44] Frank J. Fabozzi, Vinod Kothari, Securitization: The Tool of Financial Transformation, Yale ICF Working Paper No. 0707, available at http://ssrn.com/abstract=997079.

[45] Frank J. Fabozzi, Vinod Kothari, Securitization: The Tool of Financial Transformation, Yale ICF Working Paper No. 0707, available at http://ssrn.com/abstract=997079.

[46] Joseph C. Shenker and Anthony J. Colletta, Asset Securitization: Evolution, Current Issues and New Frontiers, 69 Tex. L. Rev. 1369, May, 1991.

improvements, increased efficiencies in collecting and processing information, and increased interest rate volatility[47]. In its legal aspect, securitization presents myriad legal issues pertaining to securities, bankruptcy, secured transaction, tax, banking and other areas. In this research, we will just study the interrelationship between the evolution of related private rules and the market development of mortgage securitization.

With respect to the nature of securitization in private law, it is usually considered as a "true sale" of loan receivables from the originator to the SPV and finally to the investors in the capital market. The credit risk of these receivables is also transferred with the assignment of the underlying receivables. In its face, it is a transfer of obligation from the point of view of civil law, specifically the contract law. However, it is notable that these underlying loans are secured by mortgage which is a strong security for the due performance of the underlying loans according to its terms and conditions. Through mortgage, the creditors could realize its credit by forcible sale of the mortgaged property[48]. Thus the credit risk of the loans is mitigated greatly. So the mortgage securitization should be treated as a transfer of mortgage in its economic sense. Without the mortgage, the loans can not be transferred at par. An evidence of the this assertion is the small market scale of the securitization of the consumer and trade credit, and most of the issuance of the securities in the secondary mortgage market are backed by various mortgages. And these are specifically what I will study in the second chapter of the thesis: mortgage has been transformed from a stagnant lien into a tradable commodity in the secondary market with the proliferation of mortgage securitization.

1.1.3.2 The process and structure of securitization

In a prototypical transaction, mortgage securitization transactions generally involve the following participants: (1) the initial owner of the mortgage loan (originator); (2) an subsidiary company of the originator who owns the special purpose vehicle (Sponsor); (3) the issuer of the debt or equity instruments, usually a special purpose vehicle (SPV); (4) the

[47] Joseph C. Shenker and Anthony J. Colletta, Asset Securitization: Evolution, Current Issues and New Frontiers, 69 Tex. L. Rev. 1369, May, 1991.

[48] To support this argument, it is notable that the securitization of mortgage is currently the largest asset class within the ABS market, in which the trade receivables, credit card receivables, auto receivables are also securitized.

investment bankers who assist in structuring the transaction and who underwrite or place the securities; (5) the rating agencies, who assess the credit quality of the instruments and assign a credit rating; (6) a credit enhancer, possibly a GSE, a bank, surety company, or insurer, who provides credit support through a letter of credit, guarantee, or other assurance that there will be a source of funds available for payments as they become due on the securities; (7) a servicer, usually the originator or an affiliate, who collects payments due on the underlying assets and, after retaining a servicing fee, pays them over to the security holders or their trustee; (8) a trustee, who deals with the credit enhancer, servicer, and issuer on behalf of the security holders. These entities participate in securitization in different stages.

The process of securitization is very complex. It can be illustrated by the following steps: (a) Mortgage loans are purchased from banks, mortgage companies, and other originators by sponsor which is usually a subsidiary of the originator; (b) Mortgage loans are assigned to a special purpose vehicle (SPV) by the sponsor; (c) The SPV assembles these loans into collections, or "pools"; (d) the SPV issues securities backed by the pools (e) An underwriter purchases all the"securities"—here meaning derivative income streams drawn from payments on the underlying mortgages—issued by the pool; (f) the underwriter, with the help of agents on commission, sells securities to MBS investors. Through these steps, the receivables – mortgage loans (residential or commercial), automobile loans, credit card loans and etc – are converted into securities that are issued and exchanged in the capital markets.

Mortgage securitization integrated four functions in lending generally handled by four different types of specialized financial institutions: origination, which is the initial step of making loans to individual borrowers; servicing, which is used to manage the ongoing relationship with individual borrowers and collecting payments; securitization, which means buying or pooling together large numbers of loans from originators and packaging them into tranches of securities that can be sold to investors; and funding, through which the securitizers sell mortgage backed securities (“MBS”) to public investors which hold them in portfolio as an investment, and consequently they are funded by the investors.

Once the loans are originated, the originator identifies a pool of receivables that satisfy certain features, pools them together and transfers them to the SPV. The pool of receivables or loans is referred to as "asset pool", and is transferred at par value. At the same time, the originator usually bears the servicing function[49], and manages the collections on the receivables, although these assets have been transferred to the SPV. This is because the originator generally has the proximity with the borrowers and has an infrastructure and systems for the collection and service. So the originator is the best party to manage the collections and render other borrower services. The SPV is actually a non-substantive shell entity. Although it holds the asset pool, pays for it by issuing securities as its liability in the law, it does not have the necessary wherewithal to collect the receivables and therefore can not perform the collecting and servicing function itself[50]. As illustrated above, the originator or an independent third-party entity will bear the servicing function with a compensation of servicing fee.

In general, the securities issued by the SPV are structured into three different classes, namely the senior tranche, the mezzanine tranche and the junior tranche, according to their priority in receiving distributions from the SPV. In this structure, tranches of higher priority bear lower risk and consequently receive lower interest rate, vice versa. The senior securities are paid prior to any of the classes below and were typically rated AAA which typically made up the majority of bonds issued by the SPV. The mezzanine tranches bear higher risks and thus are paid a correspondingly higher interest rate. The most junior tranche in the structure is called the equity or residual tranche and was set up to receive whatever cash flow was left over after all other tranches had been paid. This junior tranche will absorb any losses or shortfalls on any defaults of mortgages in the pool in the first resort. This subordination structure is one of the ways of credit-enhancement of securitization[51]. Let us suppose that a pool of mortgage loans with a par value of 100 million is transferred to SPV, and the percentages of three classes of securities are as following: class A – 95% (senior bond), class B – 2%(mezzanine bond), class C – 3% (junior bond). See table 1.

[49] The services to borrowers, collection of cash flows, and remittance of cash flows to investors, and basic investor services, are collectively known as the servicing function.
[50] Frank J. Fabozzi, Vinod Kothari, Securitization: The Tool of Financial Transformation, Yale ICF Working Paper No. 0707, available at http://ssrn.com/abstract=997079.
[51] Financial Crisis Inquiry Commission, Preliminary Staff Report: Securitization and the mortgage crisis, P6, available at: www.fcic.gov.

Table 2

Balance sheet of an MBS	
Assets	Liabilities
Mortgage loans	AAA senior bonds 95%
	Mezzanine BBB bonds 2%
	Residual tranche 3%

For the promotion of the securitization, the credit-enhancement is very important, adding value by inter-creditor arrangement whereby the public investors are provided two advantages – legal and structural preference. With respect to the structural preference, it refers to the stacking order of mutual rights among the different classes of investors. Legal preference refers to the bankruptcy isolation which could be realized through the mechanism of true sale, and thus an asset-backed investor enjoys over a traditional investor as a claimant on the assets of the operator. And these will be illustrated in part 3. The traditional investors are subject to bankruptcy, if the borrower runs into delinquency, which is time-consuming and expensive, and a very low percentage of the debt is to be paid off. For these reasons the legal preference offered by securitization is the central concern of securitization.

1.1.3.3 The benefits of mortgage securitization

The benefits of mortgage securitization can be summarized in the following four aspects: lowering the costs of credit; making credit more available to the borrowers; risk diversification; and enhanced market liquidity.

Firstly, mortgage securitization is viewed as an innovative tool through which lowers the cost of funding for the financial institutions. Different from the secured lending, the mortgage loans are transferred to the SPV at par with full repayment of the value of the loans. Different from the traditional corporate bonds or securities the popularity of which is decided by the corporate credit, the mortgage securitization is basically an "asset credit", by which the MBS is exclusively based on the expected performance of the asset pool and the priority of a security in the Structure. More specifically, the "credit enhancement" is required in the structure order to achieve a specific credit rating for each bond class. And this is why the credit rating usually assign a higher rating to the MBS than that of the originator.

Secondly, the sources of fund of the banks are diversified and thus more credit with lower cost are available to homebuyers. In one aspect, the securitization could help the financial institutions get funds from the capital market and reduce the reliance on the family deposits. In the second place, securitization changes the local characteristic of mortgage lending and thus aids in the geographic dispersion of capital to areas that may otherwise be deprived of credit options. By securitizing loans, however, the lender generates capital for new loans that may come from a different location. This linkage to the capital markets broadens the range of regions where depository institutions obtain capital to provide credit. Moreover, the funds out of the U.S also invest in the MBS market and thus the financial institutions could also get foreign funds to support the origination of new mortgage loans. The existence of a liquid secondary market for home mortgages increases the availability of capital to make new home loans. Financial institutions that realize the full value of their loans immediately can turn around and re-deploy that capital in the form of a new loan.

Thirdly, securitization helps shift various risks, including the interest rate risk, prepayment risk and the credit risk, from the originator to the investors who are willing and able to bear it. Before the development of the mortgage securitization, the greatest challenge for the mortgage lenders was their exposure to interest risk deriving from the mismatch between long-term assets and short-liabilities. That is because the mortgage lenders shall use the short-term family deposits to fund the long-term mortgage loans. If the interest rates rises, the lenders have to bear this interest rate risk. The mortgage securitization is funding mechanism through the long-term assets will be funded by the long-term liabilities, and the interest rate will be adjusted according to the economic environment.

Fourthly, the liquidity of the capital market has been enhanced. By distinguishing the jumbo and non-jumbo[52] mortgages, Elena Loutskina and Philip Strahan developed a theoretical model to explain the impact of the securitization on the loan supply. They found that mortgage liquidity has increased rapidly over the past 30 years, in part through the GSEs subsidies[53]. The expansion of the secondary mortgage market has dampened the effects of the monetary policy on real economic activity. Without the securitization, the central bank can slow the real activity by raising bank's funding costs (e.g., the cost of deposits) and thereby constraining the supply of credit. Nevertheless, the secondary mortgage market can help the banks to get funds even though the central bank has tightened the monetary policy. At the same time, the higher rating assigned by rating agency to the MBS plays a vital role in the liquidity creation. The higher rating to the MBS assures the high liquidity of them.

1.1.3.4 Mortgage securitization market and the financial crisis since 2007 in U.S

Mortgage securitization was first started in U.S in 1970, when Freddie Mac issued its first mortgage-backed securities. Since then, securitization was applied to the automobile loans, trade receivables, credit card loans and etc, and it was titled by a broader term "asset securitization". In fact, nearly all the financial assets which own a stable cash flow can be securitized. However, the residential mortgage securitization is still the most important component of the securitization business both because of its long history and its importance to the residential families[54].

Initially, the government's efforts to increase the supply of funds for housing finance could be traced back to the establishment of a secondary mortgage market as early as the 1930's. Later the development of modern mortgage-backed securities was greatly attributed to the federal government intervention in the real estate market to increase the funds for housing

52 Jumbo loan is a mortgage with a loan amount exceeding the conforming loan limits set by the Office of Federal Housing Enterprise Oversight (OFHEO), and therefore, not eligible to be purchased, guaranteed or securitized by Fannie Mae or Freddie Mac. OFHEO sets the conforming loan limit size on an annual basis. Jumbo loans are often securitized by institutions other than Fannie Mae or Freddie Mac. Non-jumbo loan is loan which does not exceed the conforming loan limits set by the Office of Federal Housing Enterprise Oversight (OFHEO) and eligible to be purchased, guaranteed or securitized by the GSEs.

53 Elena Loutskina and Philip E. Strahan, Securitization and the declining impact of bank finance on loan supply: evidence from mortgage originations, The Journal of Finance, Vol. LⅥⅤ, No. 2, April 2009, P 862

54 For example, the issuance of MBS in 2007 was 2936.7 billion dollars, while the issuance of ABS backed by consumer credit and trade credit reached up to 795.4 billion dollars.

finance by facilitating the flow of capital in different regions and by shifting funds from the capital market to the housing finance system[55]. As we will see in the second chapter, the secondary mortgage market was first established through the intervention of federal government, namely the establishment of Federal National Mortgage Association in 1938. Since the 1970's, the mortgage securitization began to securitize the agency loans which are guaranteed by the GSEs because of its feature of implicit government guaranty. Later, the private-label securitization began to surge and develop dramatically from 2001 to 2007, and then ended abruptly in 2008 when real estate markets began to collapse.

The largest segment of the secondary mortgage market remains the sale of whole loans to institutional investors and the government sponsored agencies for eventual conversion into mortgage securities[56]. In the first place, The largest government agency program is sponsored by the Government National Mortgage Association ("GNMA"), an agency within the Department of Housing and Urban Development ("HUD") that guarantees securities representing interests in pools of mortgages comprised solely of Federal Housing Administration ("FHA"), Farm Housing Administration ("FmHA") and Veterans Administration ("VA") loans that are less than one year old. Ginnie Mae, backed by the full faith and credit of the U.S. government, guarantees that investors receive timely payments.

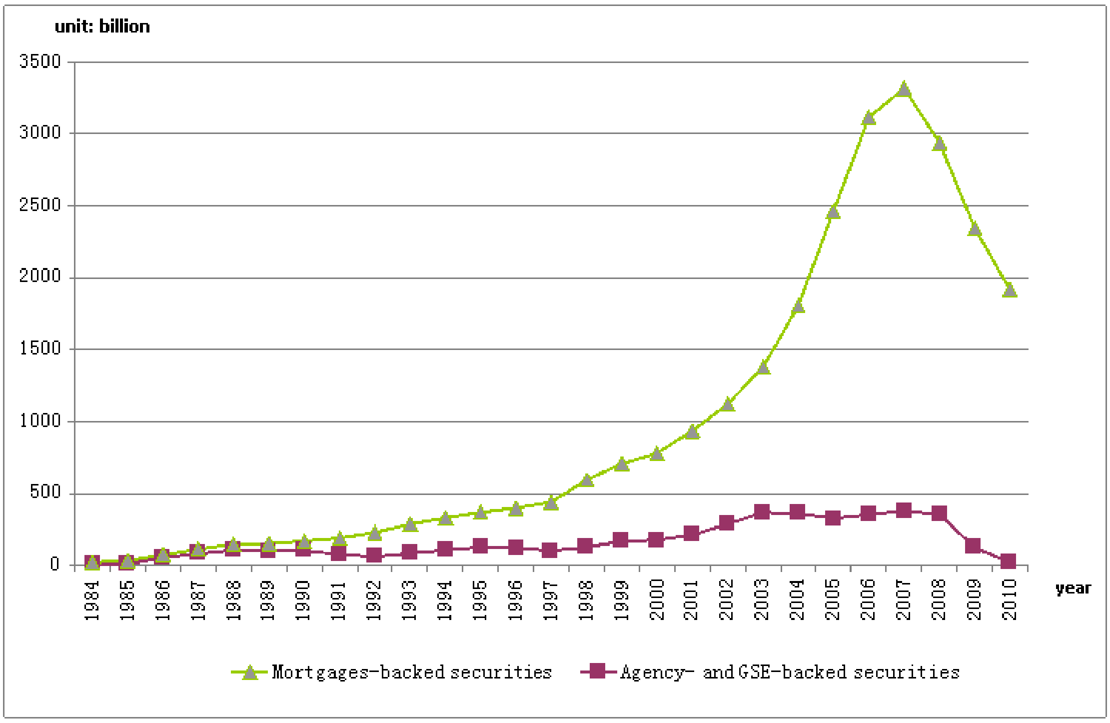
Regarding to the GSEs, the Federal National Mortgage Association ("FNMA") and the Federal Home Loan Mortgage Corporation ("FHLMC") purchase mortgage loans from the primary mortgage market, issue mortgage-backed securities or hold the loans in their portfolio. The guarantees of these two entities do not bear the "full faith and credit" of the United States government, yet they have special authority to borrow from the U.S. Treasury. Because of their close association with the government and their history of successful operation, they have excellent standing in the credit markets and are considered to provide protection to investors virtually equivalent to that provided by GNMA.

Besides, the private sector also plays an increasing important role although GSEs are still

[55] This flow of fund from the capital market to the housing market has special significance for the development of China housing fiance system, because once the secondary mortgage will be established, the speculative funds in the housing market will be encouraged to invest in the MBS and thus will converted into new loans to the homebuyers. And this will greatly increase the supply of low-cost credit.
[56] Edward L. Pittman, Economic and regulatory developments affecting mortgage related securities, 64 Notre Dame L. Rev. 497.

dominating the secondary market. Some private institutions, such as Investment Banks, Real Estate Mortgage Investment Conduits (REMICs) and the Real Estate Investment Trusts (REITs), also securitize mortgages, known as "private-label" mortgage securities. With particular reference to the issuance of MBS, the private-label securitization has surpassed the agency and GSEs-backed securitization, as shown in Graphic 2.

Graphic 2 The issuance of MBS in the U.S.



Source: The Flow of Funds Accounts of the United States, Annual Flows and Outstandings, available at: http://www.federalreserve.gov/releases/z1/current/data.htm.

At the same time, it is notable that the current mortgage financing system in the U.S was initially established by the reforming legislations in the midst of the Great Depression nearly 80 years ago. In the 1930’s, the federal government created the Federal Housing Administration (“FHA”), Fannie Mae, and the Federal Home Loan Banks which together aimed to resolve the mortgage market turmoil, increasing foreclosures and decreasing homeownership rates. These legislations and agencies established the framework and outline of the U.S mortgage financing system. And most of them still play important role in the current mortgage market. The subsequent developments in this field are mainly based on the structure and idea formed during the Great Depression. When we discuss the reasons for the current financial crisis, it is inevitable to trace back to the Great Depression legislation and practices.

In the past decade before the sub-prime crisis since 2007, the housing price was kept increasing as a result of multiple factors, such as the loosening monetary policy after 2001, and thus there existed a housing bubble. The financial history can show us the cyclical nature of the housing bubble: because of either exuberant expectations about economic prospects or structural changes in financial markets, a credit boom begins, increasing the demand for housing and thereby raising their prices. The rise in housing value, in turn, encourages further lending against them, increasing demand, and hence their prices, even more. This feedback loop can generate a bubble, and the bubble can cause credit standards to ease as lenders become less concerned about the ability of the borrowers to repay loans and instead rely on further appreciation of the asset to shield themselves from losses[57]. After the 9.11 terrorist attack of 2001, the U.S administration created a long-term environment of low interest rate. This credit boom entered into real estate and the housing price was driven up rapidly. And the impact of this housing price bubble was magnified because of the financial innovations which are mainly based on residential mortgages. Because of the increasing appreciation of housing price, homebuyers applied mortgage loans from banks to purchase houses which are out of their affordability. Also during this period, the MBS backed by sub-prime mortgage and Alt-A mortgage proliferated in the marketplace and the high liquidity of secondary market further raised the housing price. However, the housing price began to decline because the Federal Reserve had raised the interest rate since 2007 and this caused a great scale of default of the homebuyers.

From the first quarter of 2007, the number of U.S. homes in foreclosure began to soar. By June 2007 more than one million mortgages were in default or foreclosure. This represented a 50% increase from defaults and foreclosures in 2005[58]. Defaults and foreclosures have continued to grow since 2007. By January 2009 the total number of foreclosures may have

[57] Governor Frederic S. Mishkin , How Should We Respond to Asset Price Bubbles? May 15, 2008 , http://www.federalreserve.gov/newsevents/speech/mishkin20080515a.htm#f4

[58] See A Year of Turmoil: Fed. Chairman Ben Bernanke Reflects on the Stabilization of the Financial System Since the Events of Last September, available at http://www.brookings.edu/events/2009/0915_financial_crisis.aspx, visiting date:2011-3-8

been close to three million homes[59]. The most recent data available shows that for the month of July 2009 "[new] foreclosure filings - default notices, scheduled auctions and bank repossessions - were reported on 360,149 U.S. properties.[60]" Clearly, the housing crisis is far from over.

The recent foreclosures represent a significant threat to the gains in homeownership made in the last fifty years. It receded to 67.9% by the third quarter of 2008. This is a decline of 1.3%. While this is not a large number on its face, the fact that homeownership had only increased by 6.3% since 1965 means that a decline of 1.3% is in reality a significant loss of about 20%. There is obvious political importance in helping the people hit by this crisis. However, beyond the politics of today, the analysis above suggests that finding a solution to reduce foreclosures is not only good for the people in foreclosure but for the long term economy as well. That is, it is good for all of us.

1.2 Research questions and the structure of dissertation

Although this dissertation will concentrate greatly on the mortgage securitization financing, it cannot provide a comprehensive discussion of the overall problems and its ramifications, in contrast, it just focus on the legal regime governing mortgage securitization and the interplay between this legal regime and the mortgage market. The center of this dissertation is to explore the institutional causes of the current financial crisis and how to improve the legal regime so as to avoid the future crisis and keep financial stability. The end of this research is to explore an appropriate approach to develop mortgage securitization in China so as to perfect its housing finance system and mitigate the difficulties for housing purchase for low-and medium income families.

The sub-prime crisis in the U.S since 2007 has encouraged us to thinking about some very interesting and also challenging questions. Traditionally, real estate is always considered as the best security for the performance of the underlying obligation because of its stable value

59 See Jim Wasserman, Citigroup Shift on Senate Bankruptcy Bill May Aid Homeowners, Sacramento Bee, Jan. 10, 2009, at 7B.

60 Press Release, RealtyTrac, U.S. Foreclosure Activity Increases 7% in July (Aug. 13, 2009), http://www.realtytrac.com/ContentManagement/PressRelease.aspx?I temID=7192. RealtyTrac is a private company that provides foreclosure statistics across the country. They offer their services commercially for potential buyers. Their statistics are collected by compiling public default and foreclosure notices.

as we have analyzed before, but why the the market value of the houses could not cover the losses of the lenders in the sub-prime crisis? Is mortgage still the best instrument to secure the repayment of obligations? Why the securitization of mortgage loans needs agency or GSEs guarantee or further "credit enhancement"? Why the capital market in U.S, which has been claimed to provide the strongest investor protection, collapsed? Could the powerful regulation avoid the future mortgage meltdown and help keep the financial stability? Taking into consideration of these ideas, this dissertation will be organized as following.

Firstly, in chapter 2 we will focus on the evolution of mortgage from its ancient inception until the modern mortgage securitization from the point of view of institution change. In fact, the mortgage itself is always on the way of evolution with the changing economic and legal environment, from a contractual relationship, to a stagnant lien and ultimately to a tradable commodity in the capital market.We first review the transformation a mortgage from a contractual relationship to a security interest, both in the civil law system and common law system. This was the normal situation before the 18th century. The mortgage only worked as a security to secure the performance of the underlying obligation. Later, the mortgage-based financial innovations were developed, initiated at the 1765 at Prussia and further developed since the Great Depression in the U.S. The proliferation of mortgage securitization ultimately transformed in general the mortgages into tradable commodity in the capital market. This is a radical revolution which has re-structured the U.S and Eu housing finance system. In this chapter, we mainly concentrate on the Great Depression legislation which has constructed the primary legal regime governing the creation and development of the secondary mortgage market. Then the proliferation of mortgage securitization and the changes of the economic and legal environment are studied in detail. Through the combination of legal and economic research, we will find the very process of institution change and financial innovation, and the dialectical interplay between economic development and the institution changes of law. The research of this part will show us that the mortgage securitization is indeed a general trend in the mortgage financing.

In chapter 3, we will scrutinize the legal foundation of mortgage securitization mainly in the U.S context, since many scholars have always criticized its shaky foundation. In this part we will see that the current legislative regime governing mortgage securitization has rotten the foundation for the healthy development of mortgage securitization, so as to meet the sector interest of the mortgage industry. We will examine some fundamental rules in mortgage law, secured transaction and bankruptcy law, such as "Accessoriness of mortgage", "True sale" and "Bankruptcy isolation" which have been circumvented or misused for the purpose of financial innovation. The U.S legislation governing mortgage securitization has destructed the mortgage market's capacity of self-regulation and self-correcting, in the name of financing efficiency and reduction of systemic risk in the capital market. Financing efficiency is the unique goal of the legislation and the financial stability has been neglected, either deliberately or unintentionally. The problems in these legislations constitute the institutional causes of the current financial crisis. And this finding also rebuts the assertion of LLSV that the capital market in civil law system is less efficient than that of common law countries.

In chapter 4, an economic analysis of the secured lending and mortgage securitization will be undertaken. The role of mortgage in credit risk control will be examined carefully, and the incentive problems arising from the originate-to-diversify model of securitization are the important reason for the financial crisis since 2007. A new analysis approach will be adopted to examine the impact of securitization on mortgage's role in credit risk control, and this analysis will show us why the real estate is no longer the most qualified collateral to secure the performance of mortgage loans. Later, we will discuss how to create a efficient legislative regime that could help restore the mortgage industry's self-regulation capacity so as to realize the continuous and healthy development. From the point of view of risk control, the EU statutory securitization works better than the U.S structured securitization. At the same time, we should also re-consider the function of securitization: its main function should be to eliminate the mismatch between long-term assets and short-term liabilities, and thus enhance the financial institutions' liquidity, while its risk-diversification function should not be excessively emphasized and utilized for the reason of the financial stability. Particularly, the credit risk shall not be transferred for the reason of incentive problems. In this aspect, the EU statutory securitization realized a balance between financing efficiency and financial stability.

In chapter 5, we will discuss the possibility of developing mortgage securitization in China. The rising home price and the tightening monetary policy have contracted the credit supply for housing purchase, especially of these low-and medium-income families. Developing mortgage securitization will help resolve the structure problems in China economy and encourage the domestic consumption. However, there is not a specifical legislation governing the development of mortgage securitization, and the existing regulations have many drawbacks and still need improvements, because the decision-makers have not studied the securitization theory and practices in EU and U.S very well, and have not analyzed the legal and economic environment of China in detail. The risk diversification was emphasized while the financial stability was neglected. It is possible that another mortgage meltdown would occur once the mortgage securitization proliferates in China in the future years. The China securitization legislation shall learn the experiences of U.S mortgage securitization industry's rise and fall, and the EU covered bond legal framework is more appropriate to transplant into China for the institution-building for the mortgage securitization.

In fact, mortgage securitization, as an important business innovation, has not received much attention from the legal scholars since its inception and thus there is little discussion about it from the point of view of law, especially the private laws governing the specific operation of mortgage securitization. Since the burst of the sub-prime mortgage crisis, many law scholars have criticized the greed of the Wall Street, the government deregulation, the rating agencies and so on. No research has been undergone to scrutinize the basic principles of securitization, especially from the point of view of mortgage law. No scholar has paid attention to the role of mortgage in the past financial crisis and thus it is impossible to get a comprehensive insight into the burst and evolution of the crisis, and the measures taken to prevent the future financial crisis.

After each grave financial crisis, the market and its legal regime would experience great institutional change so as to meet the new market conditions, it is the same for the evolution of mortgage market and mortgage law. The sub-prime crisis since 2007 offered us a precious opportunity to observe the process of institutional changes in mortgage markets and mortgage law, and to evaluate whether the changes are appropriate and have positive impacts in the future. Specifically speaking, what the emerging countries, which are eager to develop mortgage securitization, such as China, can learn from these institutional changes in U.S?

1.3 Methodology

Mortgage securitization is complex structured financing technology, involving both specific laws governing the transaction process which has always been criticized by some scholars for its shaky legal foundations, and the economic viability and desirability which determine its proliferation in the marketplace. For this reason, a pure legal or economical study is not sufficient to understand comprehensively this complex financing method and its systemic influence on the financial markets. With respect to the relationship between law and finance, LLSV has done an innovative research in this aspect[61], and have made some interesting and enlightening assertions. Although I do not agree with his opinion, their research has indeed given me precious inspiration to study the relationship between law and financial innovations, especially the mortgage securitization. This dissertation will combine the research both on the economic and legal aspects of mortgage securitization, so as to study comprehensively how to control the credit risk relating to the mortgage loans and mortgage-backed securities. Here three main research methods will be employed.

First, a historical study of institution change of legal rules will be undertaken. History can tell us something more than the research object itself can. As professor Douglass North has stated, a theory of institutional change is essential for further progress in the social sciences in general and economics in particular[62]. In this paper, this research method will be used to explore the evolution of mortgage law both in the civil law system and common law system which separately own a history of more than 2000 years and 800 years. During this long history of evolution of mortgage, it has been transformed from a personal rights, into a real rights and finally into a tradable commodity in the secondary mortgage market. And this is the great insight that the history has told us. The evolution of mortgage financing, accompanied by specific economic environment analysis at the time when the legal rules were changed, will give us a more direct and dynamic demonstration of the process of institution change.

[61] Rafael La Porta, Florencio Lopez-de-Silanes,and Andrei Shleifer, Robert W. Vishny, Law and Finance, Journal of Political Economy, 1998, vol. 106, no. 6. In this paper, they examines legal rules purported for protection of corporate shareholders and creditors, the origin of these rules, and the quality of their enforcement in 49 countries. they concluded that common-law countries generally have the strongest, and French civil-law countries the weakest, legal protections of investors, with German- and Scandinavian-civil-law countries located in the middle.
[62] Douglass North, working paper: Institutional change: A framework of analysis, available at: http://129.3.20.41/eps/eh/papers/9412/9412001.pdf, visiting date: 2010.09.03.

And thus the interplay between economic development and law change will be better understood.

Secondly, a comparative law research on the specific rules of law will also be undertaken. It is necessary to scrutinize the specific rules of mortgage law, secured transaction law and the bankruptcy law, which together constructed the legal framework for mortgage securitization. The institutional causes of the financial crisis in US. Since 2007 derived from the drawbacks of these legislations. Here we will find that the legal framework governing mortgage securitization in common law system becomes more rigid and inefficient as a result of the "race-to-the-bottom" competition in relating legislation which has rotten the legal foundation for mortgage market self-regulation. At the same time, a comparative research of the legal framework governing the EU covered bond and U.S mortgage securitization will be made so as to search for a possible remedy for the incentive problems arising from the originate-to-diversify mortgage securitization. Moreover, the results of this comparative research will be used to construct the legal framework for China mortgage securitization with analyzing the specific legal and economic environment of China.

Thirdly, the methodology of law and finance. With respect to the relationship between law and economic development, the scholars have probed into this interesting question for a long time. In the late 19th century, Max Weber has employed law to explain the rise of capitalism, asserting that "rational" law supports economic activity by lending predictability and legitimacy to the rules of market exchange. Friedrich A. Hayek asserted that the "spontaneous order"[63] in the common law system is better suited to the market economy than the civil law. Since the 1990's, LLSV has done enlightening research in this field, explaining the correlation between the development of capital market and legal origins, concluding that the common law countries own a more developed capital markets than those of civil law countries, through the establishment of a database scrutinizing the law protecting shareholders and creditors and their enforcement in 49 countries. Their conclusion is based on the following observations: (1) Common law countries protect shareholders better than do civil law countries and especially better than French civil law countries.[64] (2) as John Coffee has

[63] Friedrich A. Hayek, Law, legislation and Liberty, Chicago: University of Chicago Press, 1973.
[64] Simeon Djankov, Edward Glaeser, Rafael La Porta, Florencio Lopez-de-Silanes & Andrei Shleifer, The New

asserted, civil law overregulates securities markets, while the common law systems imposed less regulations, and prefer market solutions and private contracting to centralized, statist regulation[65].

These researches revealed that the legal system well defining and protecting the property is the premise for the success of economic development; once the law gets into position, it will become a stable, politic-neutral institution arrangement, a framework in which the economic activities. From the point of view of these scholars, law is considered as fixed assets, like highway and dam, for the economic development, while the law itself will be kept invariable. The quality of law divides the countries into rich ones and poor ones. These views could be summerized as the "legal origin" theory, and the differences between the two legal systems are particularly emphasized.

A legal system or a legal framework, established for a specific sector, such as the mortgage industry, is not a bundle of abstract rules governing the market participants in a technical sense and thus is not a pure legal technology for social control. Otherwise, the legal changes will be simplified as technological efforts, rather a comprehensive social-economical change process. In this sense, it is important and necessary to understand the context in which these rules are applied, so as to reveal the correlation between legal change and economic development. LLSV, John Coffee and some other scholars attributed this difference of capital market in differnt states to the legal origins, with a conclusion that the common law countries granted more protection to the creditors and shareholders with a powerful enforcement of law, and thus the common law system is usually more efficient than the civil law system.

However, the burst of the financial crisis from U.S. teaches us a different lesson. Why the financial crisis occured in the most efficient and developed capital market in the world? Why the crisis did not occur in the EU which shares a similar secondary mortgage market with their U.S cousin? The reason is that the sucess and the higher efficiency of the US. capital market is at the expense of the violation of some fundamental rules which are necessary for the continuous development as illustrated in the 3rd and 4th part of this dissertation. More important is that the violation of these fundamental rules of common law has destroyed the

Comparative Economics, 31 J. Comp. Econ. 595, 610, 2003.

65 Mark J. Roe, Legal origins, politics and modern stock markets, 120 Harv. L. Rev. 460, December, 2006, P466.

basis of market self-regulation. So this dissertation will concentrate on the micro market self-regulation, rather on the macro public regulation. At the same time, the analysis of LLSV in “law and finance” is a stable, rather than a dynamic one, which limits its persuasiveness of legal change in a specific sector of interested county, such as the mortgage securitization in U.S.

With respect to mortgage and mortgage securitization, it is important to study how the law operates in the market and what the mortgage securitization practices have influenced the mortgage law. In this research, we will observe that the mortgage securitization has radically changed the way that mortgage law functions and provided no longer the necessary incentives to the participants for credit risk control. Thus the mortgage law has experienced an important institutional change in the functional sense.

II The evolution of mortgage: From contractual relationship to marketable commodity

2.1 The evolution of the mortgage from a personal right to a real right

As an important institution to secure the performance of obligation, mortgage has always been and is still on the way of evolution so as to suit the changing economic environment. From the ancient agriculture era, to the industrial era and finally to the current financial era, the nature and structure of mortgage has been radically changed. For example, at the begining, the mortgage was structured just as a contractual relationshi between the transaction parties; later it was transformed into a real security interest over the immobile property; since the 18th century, the mortgage began to be used as a instrument to secure the performance of bond and securities in the capital market. The legislators and transaction participants always explore the way to expropriate the value of mortgage and maximize its utility to the market in different historical eras. In the following part, we will see how the mortgage has been reconstructed so as to adapt to different market envrionments in history.

2.1.1 The mortgage in the Roman law

2.1.1.1 The pre-mortgage era

The term *hypotheca*, derived from the Greece, was introduced into the Roman law very lately. In the Greece law, the mortgage or hypothec is defined as a real right on property without the transfer of possession. However, this occurred only if the debtor became insolvency at the moment when the obligation was due. The true real guaranty was introduced into Greece very lately, because the inalienability of land until the 5th century D.C prevented its perception. According to Paoli, the author of “Study on Athens Law”, the simple agreement of hypothec just created a personal obligation not against to the third party, and only in combination with possession, it could be considered as a true real guaranty which is opposable to the third party[66](in the sense that a situation qualified as a real right emerged from the agreement, and the transfer of possession just occurred as a consequence of non-performance, and the principle of *prior in tempore potior in nure* will be applicable to the potential conflicts among different creditors). The research of Paoli showed that, in 10th century the guaranty in the mortgage became into a true right only with the possession and with the character of continuity, the creditor in practice entered into possession of neither the property nor its monetary equivalent.

In the roman era, the personal guaranty was mostly employed to strengthen the credit, while the real guaranty was not original[67]. As is evident both from the standard of jurisprudential analysis and the amount of legislative activity, personal security was much more important in Roman law than it is today[68]. However, there was not lack of institutions aiming to provide real guaranty for the underlying debt.

The first real guaranty utilized by the Romanian, in chronological order, was no doubt the trust of creditor – fiducia cum creditore[69], which was in substance a relationship of trust, subordinated to the principle obligation. The debtor transferred (implemented by the regular form of *mancipatio*[70]) a property to the creditor which held it as collateral. Until the credit was satisfied, the creditor re-transferred the property to the debtor. And the price of the above sale, from the point of view of economic, constitutes in practice the money given for a loan and the object of a debt. The essential character of this trust is the complete transfer of property from the debtor to the creditor, in the form of *mancipatio* and later *in iure cessio*[71]. The creditor became the proprietary over the property, and the debtor became the creditor

66 Pietro Boero, Le ipoteche, seconda edizione, NTET, P9.
67 Danilo Dall and Renzo Lambertini, Istituzioni di Diritto Romano, Terza edizione, G.Giappichelli Editore,Torino, P290.
68 Reinhar Zimmerman, The Law of Obligations: Roman Foundations of the Civilian Tradition (1990), P115. Here Prof. Zimmerman specifically discussed the reason for the prevailing of personal security. The first reason is that friendship played a far greater social role than it does today. Secondly, personal security had a much more potent effect than security by pledge; the harshness of personal execution made whoever was personally liable try to discharge his obligation almost at all cost.
69 Alfredo Ascoli, Le origini dell'ipoteca e l'interdetto salviano, Livorno, 1887.
70 The act of transferring things called res mancipi. This is effected in the presence of not less than five witnesses, who must be Roman citizens and of the age of puberty, and also in the presence of another person of the same condition, who holds a pair of brazen scales, and hence is called Libripens. http://it.wikipedia.org/wiki/Mancipatio
71 It means transfer in the court, see Danilo Dalla and Renzo Lambertini, Istituzione di diritto romano, P264.

relative to the same property which would be subject to the future act of *mancipatio*.

Under this trust, the sole obligation of creditor was to re-transfer the property to the debtor (another *mancipatio* in the reverse sense), when the price of the sold property was paid to the creditor. The trust constitutes the sole cause of the property transfer. And we can conclude that the trust transfer is for the sole purpose of entrusting one's property to another one because it will be restituted.

For the reason of the conservative spirit of the Romanians, the ancient Roman law did not accept the complete freedom of forms and modes for the transfer and constitution of rights. Although the Romanians had been emancipated from certain institutions of the barbarian people, they were very slow freeing them from the influence of certain forms when they constructed its own private law. The essential requisite for the constitution of rights is for a long time in Roma the publicity[72].

The second form of real guaranty was the pledge, denominated as *datio pignoris o pignus*. The real right of pledge could be constituted by a simple agreement by the participants. The debtor just transferred the possession of the property to the creditor, not the property itself. The property on which the pledge was based can be delivered by the pledgor (the debtor or a third party) to the pledgee (the creditor).

The pledge or pigus datum is the older one. With the act of "datio" [73] accompanied by specific agreement "conventio", the property entered into the possession of pledge. Under the pigus, only the possession is transferred, not including the title. The pledgee is obligated to restitute the property when the underlying obligation extinguished. Because the possession of the property is precisely utilized as a guaranty, the pledgee can neither use nor get the proceeds of the property. In the event of the non-performance of the debtor, the creditor is entitled to hold the property as owner or sell it using the proceeds for the satisfying of its credit. The agreement whereby the creditor could get the property of the thing for pledge is called *lex commissioria*, and it could be characterized as a *traditio*[74] under the condition of non-performance. Of the alternatives of *lex commissioria* and sale, the second got forbidden

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[72] Alfredo Ascoli, Le origini dell'ipoteca e l'interdetto salviano, Livorno, 1887, P2.
[73] 'Datio' is a latin term which refers to the transfer of property (meaning literally 'to give').
[74] It means transfer (consegna). La traditio era la forma più semplice di trasferimento del possesso, in quanto consisteva nella materiale consegna del bene; la stessa traditio tuttavia, se accompagnata da iusta causa ed animus dominii trasferendi, trasferiva, per le res nec mancipi, addirittura la piena proprietà. 交付。

by the post-classical emperors, while the faculty of sale later became the natural element, inherent in the nature of the institution.

The further and decisive step for the evolution of hypothec is commenced by establishment of pignus by a simple agreement (pignus conventio), under which the possession of the things for mortgage were transferred to the creditor just until the moment of non-performance of obligation. This conventional pledge (piguns conventum) later was titled by the Greece term "hypothec" (hypotheca or ipoteca) which is in contrast with the real contract encompassed in the pldge (pignus datum), and this constitutes the original core of the modern concept of hypothec[75].

The first form of hypothec, however, was on personal property, precisely on the working instruments and animals on the rural land by the tenant. Under the hypothec, the landlord was protected against the possible arrears in paying the land rent by the tenant. Through the *interdictum Salvianum*, the landlord could take possession of these hypothecated things in the event of tenant's arrears in paying the rents; later, the landlord was entitled an action *in rem* (action Serviana) against any third party[76], and later it was extended to the guaranty of any kind of credit in the form of *actio utilis*, no longer limited to the credit deriving from rent. Hereto a real guaranty- conventional pledge with a general application - without the transfer of things as collateral, independent from the rent claims on rural land, was constituted against anyone. Later it was possible that there existed several hypothec on unique thing in favor of different creditors, the priority was determined under the principle of chronological anteriority, namely *prior tempore potior iure*.

It is controversial with respect to the effective scope of creditor's power in case of the non-performance in different historical periods. According to Tamburrino[77], the *conventio pignoris*, even after the Serviana, was circumscribed in the *jus honorarium*[78] and just granted protection for the possession, while Gentile and Gorla and Zanelli connected it with the conception of mortgage as a limitation on the alienability which might derive from the Greece

75 Pietro Boero, Le ipoteche, seconda edizione,NTET, P6.
76 See http://www.sapere.it/enciclopedia/ipot%C3%A8ca.html visiting date 2011-6-21.
77 Giuseppe Tamburrino, Della tutela dei diritti : delle ipoteche : Artt. 2808-2899, 2. ed, 1976, P5.
78 Jus honorarium is a Latin term which means magisterial law. It means the body of law laid down by the decrees of the supreme magistrates, including the jurists and aediles or jus aedilium.

law[79].

The possible line of the development of hypothec in the Romanian law can be shown as following: a) originally, the creditor could take over or possess the thing under the *conventio pignoris*, and thus gave the debtor a psychological pressure; it was possible and became popular that the creditor could utilize the lex commisssoria to stipulate a supplementary agreement whereby the property of the collateral will be transferred to the creditor in case of non-performance.; b) successively, it informed another agreement whereby the creditor could sell the collateral and get repaid with the proceeds; c) the *pactum de distrahendo pignore*[80] became more popular, and it became the natural element of the *pignus* relationship in the classical era; d) in 320 DC, the emperor Constantine forbid the use of *lex commissorio*, and the ius ditrahendi became the essential element of pledge (however the sale could not be proceeded if a special notification was not given to the debtor); at the same time, the institution of *impetratio dominii* emerged for the situation in which a buyer could not be found, and the creditor could make an application to the emperor to get the property of the collateral(the debtor also had the possibility to re-take the property in two years time); e) in 530 DC, Justinian established the obligation to restitute the eventual excess of value relative to the guarantied credit to the debtor, both for the creditors who have sold the collateral exercising the *ius distrahendi* and those who have get the property by means of *impetratio*,

It is, however, evident that the protection for the potential acquirer, in case of the hypothecated property, is problematic. Because there was no mechanism for the publication of the hypothec, the limitations on the property was not cognizable for the third party and consequently it was inevitable to create a secret hypothec. Usefulness and reliability of real security were seriously impaired by the lack of publicity[81]. The question of secret security is confronted in different states and eras. With respect to the publication of the hypothec contract, the emperor Lenone, in 472 D.C established a system of publicity, based on

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80 Il pactum de distrahendo pignore era, in periodo preclassico, il patto con cui si attribuiva al creditore il iùs distrahèndi [vedi], e cioè il diritto di alienare, in caso di inadempimento, l'oggetto ottenuto in possesso al fine di soddisfare il credito con il ricavato della vendita, restituendo al debitore l'eventuale eccedenza [vedi hyperocha]. In età classica, data la notevole diffusione, esso fu considerato automaticamente inserito nel pignus [vedi], tanto che per escludere il ius distrahendi si ritenne necessario ricorrere ad un espresso pactum de non distrahendo pignore. See http://www.simone.it/newdiz/newdiz.php?id=2198&action=view&dizionario=3 visiting date 2011-6-22.

81 Reinhar Zimmerman, The Law of Obligations: Roman Foundations of the Civilian Tradition (1990), P116.

priviliges to *pignus publicum* through the transcription in the registry of magistrate. Successively the emperor Justinian introduced the pignus quasi publicum (private act undersigned by three testimonies). In 1673, the famous Colbert decree was promulgated and it established a system of publishing the mortgage whereby the registered creditors enjoyed priority over the non-registered one. However this decree was revoked a year later. Some other systems also pursued to assure the consciousness or knowability of the existing limitations on the collateral, which was brought about by the documentation in the public registry (for example the notary institution in Venice in 1288 assumed this function) or by the form of oral publication (the statutes of Sassari of 1316 provided that the act of creating a mortgage should be published in the public every year). The publicity assumes substantial effect of diminishing the secret security. Sine the 14^{th} century, in some German-language areas the constitutive effect of the "intavolazione" in special public registry of all the acts about immobile negotiation was confirmed, including those relative to the real guaranty.

There are two contrasting categories of conceptions of mortgage in the Romanian law. One defines mortgage as a limitation on alienability of collateral; the opposite one, however, permits the transfer the property of the collateral so as to dispose it for the repayment to the creditor. Generally speaking, the second definition has gradually dominated over the first one, as a result of the requirement of the circulation of collaterals, no matter how much oscillations have occurred in different periods. It is undoubted that the current provisions as a whole accept the doctrine of the expropriability of collateral through the third party who becomes the proprietary finally.

2.1.1.2 The evolution of mortgage in the later periods

In the medial era, the hypothec was often a subterfuge because of the anti-usury law and took the name of *obligation bonorum*. In the 16^{th} century, the institution of hypothec re-took its ordinary name, but its level of publicity remained the same with that of the Romanian period. Before the 13^{th} century, the security interest over the immobile property in Germany introduced the Romanian hypothec, usually provided the possession of the collateral and had in disposal of the use of and the proceeds from the collateral [82]. Since the 13th century, the non-possessory mortgage became popular in some areas of Germany, such as Cologne, because of the creation of "city book" (stadtbuch), and thus the exchange value of the real property was employed to secure the performance of the loan. The borrower, usually the businee man involved in navigation, kept the possession, use and exploitation of the real property. This could be seen as the srpout of the modern mortgage.

In fact, the mortgage in the medial era was not very well publicized, and various non-uniform methods were used to publicize the mortgage. Consequently, this confusing publicizing system did not satisfy the security requirement of the commercial economy development since the 18th century. For this purpose, Prussia enacted a national "Mortgage and bankruptcy act" establishing the "land and mortgage recording book" managed by the court system in 1722. It is notable that the recording under this act is not necessary for the constitution and validation of the mortgage, while the unrecorded mortgage is still valid, but repaid after the recorded creditors.

Later, the prussia government enacted anther two acts which improved or modernized its real estate financing system, namely the "Bankruptcy act" of 1748 and the "Mortgage act" of 1750. Under the "Bankruptcy act" of 1748, in case of the debtors' insolvency, the creditors would be repaid according to their recording time, whereby the creditors recorded prior were repaid in priority. Under the "Mortgage act" of 1750, all the mortgages, including the legal mortgage, should be recorded, otherwise the creditor would loss its priority in the repayment. The priority of competing mortgages in the repayment is determined by their recording time. The recording became the unique way to determine the existence and priority of the mortgage. Since then, the mortgage became a uniform lien over the real property in the national jurisdiction and this facilitated the further exploitation of the exchange value of the real estate to fund the commercial activities in the expansion of capitalism. A refined and consolidated land register provided the basis for what was called "mobilization of land value". However, the consequence was that landed property soon became overcharged with debts[83].

[82] Chen Huabin, Working paper:The evolution of the security interest over immobile property in Germany, availalbe at: http://china.findlaw.cn/info/minshang/danbao/lunwen/319089.html.
[83] Reinhar Zimmerman, The Law of Obligations: Roman Foundations of the Civilian Tradition (1990), P116.

In the pre-revolution France, the famous law of Brumaire 11 introduced the distinction between the transcription, a condition for the effect against third party concerning the property and real right of enjoyment, and registration, evidencing the existence of mortgage and affirming the principle of publicity and specialty[84]. And this constituted the fundamental development for the immobile publicity system of latin. The Napoleon civil code went back to the consensual transfer of property, introducing the secret security which waived the mortgage publicity.

The mortgage as a lien to secure the performance of obligation became very popular since the 18th century, and this system was also transplanted to the other areas of the world, such as Japan in the 19th century and China at the begining of the 20th century. The commercial activities, assisted by the modern mortgage system, got developed very fast. The recent example is China. Since the enactment of its "Guarantee Law" governing mortgage in 1996, the mortgage law has been widely used to finance the economic activities, especially the housing finance, and many urban families have bought their new home throug the financial assistance from the banks' mortgage loans.

2.1.2 The mortgage in the common law system

Mortgage has a long story of development in the English law since the medieval era. It has experienced three fundamental transitions since its inception. The first occurred at the end of the 15th century, where the mortgage was transformed from the possessory interest of the creditor into a security interest of modern law. The second occurred in the early 17th century with the recognition of the equity of redemption by which the mortgage was transformed from a personal right into a real right. And that is why it is generally considered that the mortgage law in the common law system originated in the 17th century. The third occurred since the 1930’s, when the mortgage was transformed from a stagnant lien into a tradable commodity in the secondary mortgage market. The mortgage securitization since the late 1970’s fastened this process and broadened its impacts on the mortgage law. Combining with

[84] Pietro Boero, Le ipoteche, seconda edizione,NTET, P13.

the mortgage-based financial innovations, such as the MBS. In this part, we will discuss the first two transformations and the third is left for discussion in the next part.

The mortgage law of today, being of ancient derivation, is of many complexities which are the result of the law's oscillations in trying to maintain the equilibrium among the parties in this field: on the one hand, mortgage law has always been seeking to offer safe security for the creditor who advanced money; on the other hand, it also try to restrain greedy creditors from exploiting needy borrowers. Through the following analysis of the mortgage's evolution in common law, we will see the effots of judges and legislator made to achieve this equilibrium.

2.1.2.1 The mortgage during the 12th and 15th century

The mortgage in this period was greatly influenced by the prohibition on charging interest[85] imposed by the Church, which characterized the agreement to pay interest as usury. And this prohibition aimed to prevent economic exploitation of poor people and continued to exist until the 15th century. Due to the interest prohibition, the key feature of the two mortgages above discussed was the lenders' physical possession of the mortgaged land with different contractual arrangements. Moreover, the lenders structured these transactions to disguise the true nature of the lender-borrower relationship so as to circumvent the prohibition on interest for lending, such as lease, conditional sale and etc. And during this period, the mortgage arrangements have evolved through three forms --- the Glanvillian gage, the Bractonian mortgage and the Littletonian gage.

Although no detailed evidence is available, the earliest instance in English law of an owner using land as collateral for a loan is the gage of Glanville's (a justice in eyre) time in the late 12th century[86]. Glanville[87] described two kinds of gages of land: the live pledge (*vif gage*) and

[85] At that time, the England economy was undeveloped and international trade was not very active and the lenders were lack of investing opportunities. Consequently, they had to lend money to the necessitous people charging interest as the primary source of income. And that is why the state and church issued their prohibitions on charging interest.

[86] Andrew R. Berman , "Once a Mortgage, Always a Mortgage" - The Use (and Misuse of) Mezzanine Loans and Preferred Equity Investments, 11 Stan. J.L. Bus. & Fin. 76, Autumn, 2005. Also see Powell on Real Property, § 37.02.

[87] In 1190, Raulph de Glanville wrote his "Treatise on the Laws and Customs of England".

the dead pledge (*mort gage*[88]). For the live pledge, the creditor took physical possession of the pledged land and applied the rents and profits to satisfy its claims. The most popular gage was the "mort gage" or "mortuum vadium" (dead pledge) through which the creditors took physical possession of the pledged land, but not applied rents and profits of the land to reduce the underlying obligation. So the lenders' physical possession of the land is the essential element of these two forms of mortgages[89]. However, the *physical possession* of the lender did not get protection from the law[90], although it was essential for the creation of a valid Glanvillian gage. Upon the borrowers' default, the title to the land was forfeited to the lender regardless of the fact that the land's value exceeded the outstanding debt and the rents and profits had been collected by the lender as interest in substance.

In the 13th century, the Glanvill's gage was replaced by Bractonian gage, under which the borrower was required to transfer an estate for years and *legal possession* to the lender. Different from the Glanvillian gage, the possession of Bractonian gage was legal protected. The borrower had the right to recover the property upon repayment of the debt, and he or she would automatically loss the absolute fee simple to the lender once he or she failed to repay the debt. Bractonian mortgage required the lenders to prove both the existence of the underlying debt and the validity of their title.

Here we describe the ancient and primary form of mortgage. But it is not the mortgage in the common law. Although the term "mortgage" is still used today, it is no longer the mortgage in an arrangement under which the mortgagee took physical possession of the property and retained the proceeds from the property. Under the modern and equitable mortgage, the fundamental principle is the *anti-clogging rule* which prohibited the clogging of the debtor's equity of redemption and thus prohibited the mortgagee from retaining any interest in the mortgagor's property once the underlying debt had been repaid[91]. So the

[88] At that time, French was the official language after the Norman Conquest, and at that time, the term "mortgage" was introduced from French and was incorporated into English.

[89] There are two possible reasons for the lenders' physical possession of the land. First, the possession was the best way of publicity in a era absent of recording system, and thus prevented the potential competing lenders; second, the lenders' possession facilitated the lenders' remedy upon the borrowers' default.

[90] There are two possible explanations for this result. One is from Glanvill who justified this result on the ground that the lenders' real interest was in the debt and not in the land. See Ranulf de Glanvill, A Treatise on the Laws and Customs of the Realm of England bk. x, ch. 12 (G.D.G. Hall trans.,1965). Some other commentators thought that the lack of protection could be attributable to the early state of development of the possessory actions. See Frederick Pollock & Frederick Maitland, The History of English Law 119 (2d ed. 1898).

[91] Morris G.Shanker, Will mortgage law survive? : A commentary and critique on mortgage law's birth, long life and current proposals for its demise. 54 Case W. Res. 69.

original Dead Pledge transactions have disappeared and been substituted by a totally different equitable mortgage since the 17th century. Later we will detailed discuss the revolutionary development of mortgage law in the 17th century.

Approximately by the end of 15th century, the mortgage was transformed from the possessory interest of the creditor into a security interest of modern law. Littleton[92]'s gage --- the direct forerunner of what we now refer to as the common law mortgage --- soon began to displace the Bractonian mortgage[93]. Under Littleton's gage, the mortgagor conveyed the land to the mortgagee in fee simple, subject to a condition that the mortgagor might re-enter and determine the mortgagee's estate if the money lent was repaid on a determined date. Upon the borrower's repayment of the debt, the lender's estate automatically ended and the borrower could exercise its right of reentry and recover the land from the lender. Through the Littleton's gage, the mortgagor just conveyed the fee simple to the mortgagee, while he retained the actual possession of the mortgaged land by the middle of the 17th century. So the mortgage was no longer a possessory one rather a *true security instrument*[94], by which the mortgagee was granted the legal title to the property as collateral.

From the era of Glanville's gage to the Littleton's gage, the lender gradually strengthened its rights in the mortgaged land. The culmination of this trend was Littleton's gage where the lender actually obtained fee title to the mortgaged land with almost all the rights incident to absolute ownership, including the right to possession and collection of rents and profits[95]. There was no separate body of mortgage law at that time and the relationship between the lender and borrower was governed by the general principles of conveyance law and contract law. Usually the lender, with superior bargaining power, dictated the terms of the mortgage contract and imposed their will over the borrower. At the same time, the situation for the

92 See Littleton on Tenures, (Wambaugh ed. 1903).

93 There is no clear consensus on exactly when Littleton's gage became the dominant form of mortgage, but the dates range from the thirteenth century to the early sixteenth century. Osborne on Mortgages, supra note 19, 5 at 8 (arguing that in the fourteenth century the conveyance of the fee upon condition subsequent emerged as the dominant form of mortgage); Powell, 37.02 (noting that in 1475, Littleton "described a mortgage as a conveyance upon condition that if the debtor paid upon the due date ... he might re-enter"); See Andrew R. Berman , "Once a Mortgage, Always a Mortgage" - The Use (and Misuse of) Mezzanine Loans and Preferred Equity Investments, 11 Stan. J.L. Bus. & Fin. 76, Autumn, 2005.

94 Here, we find that mortgage in the civil law system and the common law system has followed a similar evoution from possessory to non-possessory security interests, as happened in England and Germany nearly at the same historic moment.

95 Andrew R. Berman , "Once a Mortgage, Always a Mortgage" - The Use (and Misuse of) Mezzanine Loans and Preferred Equity Investments, 11 Stan. J.L. Bus. & Fin. 76, Autumn, 2005.

borrower was worse because of the common law court's rigid literal interpretation and enforcement of the contractual arrangement. In the litigation, they did not taking into consideration of the intent and the true nature of the transaction. According to the common law court, the freedom of contract was paramount and thus they protected the lenders' interests in the name of freedom of contract. The mortgagor had to perform the underlying debt on the due date (which was usually referred to as law day), otherwise he would lose its fee simple over the property, even if the default could be due to circumstances out of the debtor's control, such as illness, force majeure and etc. This was titled by the common law "freedom of contract" regime.

2.1.2.2 The equitable mortgage in the 17th century: The equity redemption and the conversion of mortgage from personal rights into real rights

In the early 17th century, the mortgage experienced a great change in the form and substance because of the intervention of the equity court through developing the borrower's *equity of redemption.* And it is commonly considered that the true mortgage originated at that time. Because of the harsh consequence of the common law mortgage described above, the chancellors in the early 17th century began to grant appropriate relief to the mortgagors, and the result of these practices was that they developed a unique and separate body of mortgage law.

The chancery intervention primarily aimed to protect the debtors from the harsh and technical treatment of the common law mortgage. And this helped realize the radical transition of mortgage from a personal right into a real right. There is a good explanation for the equity of redemption from the point of view of the creditor-debtor relationship. The mortgagee advanced a loan to the mortgagor and expected to be repaid the amount due to him with the corresponding interest. The mortgagee's right was only to the payment of his debt and the property was merely security for that purpose. Once the mortgagee-creditor got paid, the relationship between the parties was terminated like the general creditor-debtor relationship; and the mortgagee no longer had any rights over the property offered by the mortgagor for securing the payment of the underlying debt. Any attempts trying to retain rights over the property are illegal and unenforceable, and they are unlawful clogs on the debtor's equity of redemption which is considered as inviolable. According to this basic anti-clogging rule, the provisions in the mortgage contract allowing the mortgagee retaining any interest are ineffective.

Initially, the Chancery just compelled the creditor to make the agreed re-conveyance where the debtor had strictly performed its obligations. Later this intervention was applied to the situations where the debtors had failed to perform the debt on its due date (the law day), rather than permitting the mortgagee to forfeit the property. At first the equity of redemption was limited to individual borrowers only where the debtor had a good or justified excuse for his default, such as fraud, accident, mistake, excusable error, impossibility, oppression, or some similar familiar ground of general equity jurisdiction[96]. But by the early 17th century, the courts recognized the borrower's right of redemption as a general rule[97]. This right became known as the debtor's "equity of redemption", and this right means not only a personal right to pay late, but a continuing estate in the land on the part of the debtor, amounting to an ownership interest, until his right to redeem was terminated ("foreclosed").[98]And since then, mortgage law became a unique and separate body of equity law[99].

The anti-clogging rule seems to permit the mortgagor to delay the performance of debt for an unlimited time and then to redeem the property by a delayed payment. And thus the mortgagee felt no safety regarding to its security interest upon the debtor's default. So the mortgagee looked to the Chancery for a decree through which the debtor would be barred from the equitable right to make a tardy redemption. As a response to this needy protection to the creditors, the equity court developed the well-known foreclosure proceeding through which the mortgagee asked the equity court ordering the debtor to redeem by making full payment of the principle obligation and the corresponding interest within a designated time after the due date. Otherwise the mortgagor's equity of redemption will be foreclosed.

[96] Powell, at 37.02. According to Turner, the first instance of a court ordering what we now refer to as the equity of redemption dates to 1456 in a case involving highly unusual circumstances: excessive profit, imprisonment of the mortgagor in debtor's prison, and the lender's gross fraud and oppression." There were soon other cases suggesting the court's power and jurisdiction to order equitable relief. But the equity of redemption did not develop all at once. It developed over a period of time and "only as the result of a very long succession of decisions."
[97] See, e.g.,Burkhart, Lenders and Land, at 264.
[98] Kenneth C. Kettering, True sale of receivables: A purposive analysis, 16 Am. Bankr. Inst. L. Rev. 511, Winter, 2008.
[99] Morris G.Shanker, Will mortgage law survive? : A commentary and critique on mortgage law's birth, long life and current proposals for its demise. 54 Case W. Res. 69.

The transition of mortgage from a personal right to a real right is closely related with the intervention of equity courts of England. The development of the equity of redemption was a complicated game between the lenders and the equity court in a long period. As we have described above, in medieval England, lenders usually disguised the mortgage transaction as other types of transaction in attempt to avoid the borrower's equity of redemption, such as conditional sale or lease with right of early termination, an outright sale with another contract where the buyer-lender promises to resell the land at a higher price, or a conveyance to a third party to hold the land in trust for the lender's benefit if the borrower failed to repay the debt.

Notwithstanding lenders' above-mentioned attempts to disguise the true nature of the mortgage transaction or to force the borrower to agree contractually to waive or limit its right of redemption, the equity courts began to interpret the transaction not only based on the language and the form of the mortgage contract which often masked its substance, and to emphasize the substance of the transaction. In scrutinizing the legal structure of the relationship and the true underlying nature of the transaction, the courts declared one of the most important and long-held doctrines in real estate law: "once a mortgage, always a mortgage." It means that if the true nature of the transaction was a mortgage, the law would treat it as a mortgage. As Marshall Tracht has observed, the courts regard the right of redemption as "essential, immutable, and unwaivable", and is an inherent and inseparable part of every mortgage law[100].

The emergence of the borrower's equity of redemption signaled the courts' general reluctance to enforce forfeiture provisions in the mortgage transaction, especially when the value of the mortgaged land greatly exceeded the amount of the underlying debt. By refusing to enforce the harsh forfeiture provisions contained in the transaction documents, the courts simultaneously eroded the "then existing "freedom of contract' rules" and began to develop mortgage law as a "unique and separate body of equity law."[101] But the equity courts looked beyond the mere words of the contract and they were willing to look at the essence of the underlying debtor-creditor relationship rather than focusing solely on the formalistic structure

[100] Marshall E. Tracht, Renegotiation and Secured Credit: Explaining the Equity of Redemption, 52 VAND. L. REV. 599 (1999).

[101] Morris G. Shanker, Will Mortgage Law Survive?: A Commentary and Critique on Mortgage Law's Birth, Long Life, and Current Proposals for Its Demise, 54 Case W. Res. L. Rev. 69, P71-72, 2003.

of the secured loan. The intent predominated over the form of the transaction and the court only protected the parties' reasonable expectations. That was, the lender expected to be repaid the loan with interest in a reasonably period, and the borrower expected to recover its mortgaged property upon payment of the outstanding debt.

2.1.2.3 The reformulation of mortgage: From title theory to lien theory

Since the inception of mortgage, the title theory has dominated the discussion of the nature of mortgage in England until the revolutionary Law of Property Act 1925. Under the title theory, the borrower granted its legal title over the mortgaged land or building to the lender,

One possible reason for the harsh treatment of the debtor is the legal structure of mortgage. Before the revolutionary reform of property law of England in 1925, the title theory dominated the mortgage transaction, namely, the legal title of the mortgaged land was conveyed to the mortgagee subject to condition under which the mortgagor could re-enter and re-vest himself with the legal title upon his performance of the underlying obligation. And this formalistic transfer of legal title has imposed negative results to the debtors, leaving them only the right of entry and an equitable protection. So it caused the necessity to reformulate the mortgage transaction into terms of lien creation. In England, the lien theory officially replaced the title theory under the Law of Property Act 1925[102]. *And this act provided two methods for creating a mortgage: (1) a demise for a term of years absolute, subject to a provision for cesser on the redemption; or (2) a charge by deed expressed to be by way of legal mortgage. But after the entry into force of Land Registration Act 2002, there is only the second method left for creating a mortgage.*

In the United States, the title theory still is accepted in some states[103]. However, the litigation results in these states have demonstrated the true lien character of mortgage. As a consequence, the same results are reached on most topics in the law of mortgages under both

[102] Powell on Real Property, § 37.03.

[103] Three theories exist regarding who has legal title to a mortgaged property. Under the title theory title to the security interest rests with the mortgagee. Most states, however, follow the lien theory under which the legal title remains with the mortgagor unless there is foreclosure. Finally, the intermediate theory applies the lien theory until there is a default on the mortgage whereupon the title theory applies. See http://topics.law.cornell.edu/wex/mortgage

theories[104]. At the same time, some states the lien theory has wholly replaced the title theory. For example, Georgia provides that "a mortgage in this state is only a security for debt, and passes no title.[105]"

2.2 The Secondary Mortgage Market and Mortgage Securitization: From stagnant lien to marketable commodity

Mortgages have always been transferable, and a market for mortgages existed in England as early as the 13th century[106]. In the continent Europe, a secondary mortgage market had been established as early as 1760's by the Fredrick Ⅱafter the 7 years' war in Prussia, which was followed by Denmark and the other European jurisdictions. Meanwhile mortgage-backed bonds were sold to the public as early as 1880[107], and mortgage participation certificates had been issued by mortgage bankers[108] in U.S even before the beginning of 20th century. So the secondary market is indeed not innovation in this strict sense. However, the secondary market was relatively underdeveloped until the 1930's when the American administration acted to revitalize the housing market by introducing more liquidity. For the reasons of different legal traditions and mortgage law construction, these jurisdictions have developed two distinct models of converting the mortgage from stagnant lien into marketable commodity, namely the *European Covered Bond* (In Germany the Pfandbrief) and the *American Mortgage-backed Securitization*.

104 Surges & Clark, Legal Theory and Real Property Mortgages, 37 Yale L.J.691 (1928).
105 See Ga. Code Ann. § 44-14-30.
106 Jo Anne Bradner, The secondary mortgage market and state regulation of real estate financing, 36 Emory L.J. 971, SUMMER, 1987.
107 Edward L. Pittman, Economic and regulatory developments affecting mortgage related securities, 64 Notre Dame L. Rev. 497.
108 See Report by G. Alger, Moreland Commissioner, to H. Lehman, Governor of the State of New York, on the Management and Affairs of the Insurance Department 10 (Oct. 5, 1934) [hereinafter Moreland Commission Report] (copy on file with the Texas Law Review) (noting that guaranteed participation certificates were devised in 1906, but participation certificates in unguaranteed mortgages had been in use long before that). Cited from Joseph C. Shenker * and Anthony J. Colletta, Asset Securitization: Evolution, Current Issues and New Frontiers, 69 Tex. L. Rev. 1369, May, 1991.

2.2.1 The mortgage covered bonds in German

In German, the mortgage financing of large volume has a longer history than that of U.S and UK, it can be traced back early to 1770. The roots of the German Pfandbrief system go back to the year 1769, when Frederick the Great issued a “cabinet order” pertaining to the introduction of the Pfandbrief system as a means of easing the nobility’s credit shortage in areas of Prussia which had been ravaged during the Seven Years’ War (1756-1763). According to the Association of German Pfandbrief Banks (VDP), no Pfandbrief has failed throughout its 200-years long history[109]. They are said to be attractive even in unfavorable financial times because they “provide issuers with access to liquidity at all times and can therefore finance new business with substantial margins even in a difficult market environment.

The United States is considered as the birthplace of modern securitization, beginning with the inception of mortgage - backed security since the 1970s. Different from the mortgage securitization in U.S, the Germany legislator adopted a distinct statutory approach of securitization in order to utilize the real estate, especially the land, and to develop the national economy. European banks were much slower to adopt the technique of U.S mortgage securitization and were fortunately better placed to weather the initial stages of the 2008 - 2009 crisis, although they too have been directly and indirectly exposed to turmoil. Although structured differently, the covered bond and mortgage securitization both have commoditized the mortgage, this is the important reason why we parallel covered bonds with U.S mortgage securitization.

2.2.1.1 The origin of and development covered bond

The roots of the organized German Pfandbrief system can be retrospected to the aftermath of the Seven Years' War from 1756 to 1763[110]. The great fortunes of the Prussia had almost been

[109] See the Brochure “The Pfandbrief - A safe investment" on the website of VDP, available at: ”http://www.pfandbrief.de/cms/_internet.nsf/0/871CDBC82023C6F5C12578EE0055F78F/$FILE/EN_Pfandbrief_Broschuere.pdf, visiting date: 2011-10-25

[110] For the discussion of the German mortgage banking system here, the reference will be mainly rely upon the research of D.M.Frederiksen, Mortgage Banking in Germany, Quarterly Journal of Economics. This paper is

totally destroyed and they suffered losses of every kind, especially for the province of Silesia. The most valuable and sole fortune left to Prussia was the land. At that time, it was very difficult to get credit and the interest rate was about 10% even on the mortgage loans. In order to alleviate this tight credit and promote the economic development, the Prussian government adopted a plan[111] which was initiated by a Berlin merchant, Büring, and aimed at "making part of the real estate of the country current" in 1770[112]. And this proposal is the origin of all modern methods of organized mortgage banking as it is now carried out in the Continent Europe[113]. In 1769, Frederick the Great issued a "cabinet order" establishing a compulsory public-law association of noble landowners ("Landschaften") that could obtain cheap agricultural loans by issuing full recourse bonds secured by the nobles' estates[114].

According to this plan, a credit association, Die Schlesisiche Landschaft, was formed by the noble land-owners, issuing mortgage coupons or debentures and guarantying the repayment of principle and interest, with the king lending 200,000 thalers at 2% to the credit association as the starting capital. The coupons or debentures would be of 1/2 or 2/3 of the value of the land, with an interest rate of 4 percent payable to the holders of these bonds. While the landowners or the debtors should pay 4.5% or 5% to the *landschaftscasse* for the loans they got, and the interest rate difference was used to cover the cost of the landschaftscasse and form an accident fund. The bonds can be traded publicly and its safety would be insured sufficiently by the general Hypothekencasse, the mortgaged lands and the prompt legal remedies[115], while the provincial guarantee was not necessary. Through the issue of these bonds, more currencies were provided for the economic development than before and the interest rate would fall. For example, the interest rate of the bonds issued by one credit association was 4.5%, later it was reduced to 4% in 1830, and 3.5% in 1834.

For the control of risk, the ratio of loan-to-value was strictly limited from 1/3 to 1/2, and maxim of 2/3. There were various measure adopted for the estimate of the value of the

possibly the earliest English literature which did a detailed research on the origin and development of the German mortgage banking system.

111 For more information about this plan, see D.M.Frederiksen, Mortgage Banking in Germany, Quarterly Journal of Economics, P47-P51.

112 This plan was initially made in 1767, and at first was rejected. However, it was finally approved with some alternations on July 9, 1770.

113 D.M. Frederiksen, Mortgage Banking in Germany, Quarterly Journal of Economics, P60.

114 See Association of German Pfandbrief Banks(VDP), History of the Mortgage Bank Act, available at http://www.pfandbrief.de/cms/_internet.nsf/tindex/en_116.htm (last visited Jun. 11, 2010).

115 D.M. Frederiksen, Mortgage Banking in Germany, Quarterly Journal of Economics, P49.

property. For example, the credit associations usually employed well-know land-owners and members of the association to make the valuation. Some association required that the loan must not exceed the actual cost of the mortgaged building, and the valuation was further based on the average income for the past 3 or 5 years.

The "Landschaften" were compulsory public-law associations of noble landowners within individual provinces, through which the members could obtain cheap agricultural loans. Initially there was a close relationship between the estate encumbered by mortgage and the respective Pfandbrief (referred to as "Güterpfandbrief". The high standard of safety of this first form of Pfandbrief lays in the fact that, first, the Pfandbrief creditor acquired a direct claim over the individual estate that served as security for the liabilities of the borrower. Over and above that, all the estates lent against by the Landschaft served jointly as security. The high safety guaranteed the good liquidity of these bonds: some of them were listed on the principle German exchanges, and thus had a good market value; the credit associations usually made loan by handing to the borrower bonds of the same amount which he could sell by himself so as to convert it into cash. At the same time, when the borrower repaid the loan, the payment was made not in cash, but in bonds which he must buy in the open market. Later this close relationship between property and Pfandbrief was loosened, and the Pfandbrief became a debt instrument that was issued by the Landschaft itself and was secured by all the mortgages that the Landschaft had created in respect of the individual properties.

Another particularly important association is the *Central Landschaft für die preussischen Staaten*, which was founded in 1873. It functioned in the way similar to the current Fannie Mae and Freddie Mac. It issued bonds, not to make loans but to assist other associations to obtain funds, based on the loans made by these credit associations.

During a period of more than one century since the inception of Pfandbriefe in Prussia, there was lack of a uniform mortgage bank law. The statutory requirements for the Prussian mortgage banks of 1863 could be see as the starting point of this law, and these requirements were principles stipulated by the ministries for the awarding of mortgage bank licenses in Prussia. Only mortgage banks that subjected themselves to these legal requirements were to receive the license and the right to issue Pfandbriefe. And this principle is confirmed by the later uniform Mortgage Bank Act in 1900 and the current Pfandbriefe Act 2005. For example, credit institutions governed by private law which are not mortgage banks may not issue bonds under the name "Pfandbrief" or under any other name containing the word "Pfandbrief"[116]. Under the Pfandbriefe Act 2005, "credit institution with its head office within the purview of this Act which wishes to engage in Pfandbrief business shall require the written licence of the Federal Financial Supervisory Authority (supervisory authority) in accordance with § 32 of the German Banking Act"[117]. With a development of more than one century, Germany adopted it first mortgage based financing law, Mortgage Bank Act (HBG) on July 13, 1899 and it entered into force on January 1, 1900. For the first time, the whole German Empire was given a standardized legal foundation for the issuance of Pfandbriefe through this legislation. After several amendments, it was finally replaced by uniform Pfandbrief Act (PfandBG), which is largely based on the provisions of the HBG, entered into force on July 19, 2005. The 1900 Mortgage Bank Act (Hypothekenbankgesetz, HBG) allowed Pfandbriefe to be issued by private mortgage banks. In 1927, the passage of the Public Pfandbrief Act extended this to public sector banks[118]. The German Pfandbrief system underwent a major overhaul in 2005 with the passing of new federal laws governing this financial product and the financial institutions that provide it. The new Act consolidates a number of older laws[119], and provides a comprehensive licensing scheme for financial institutions wishing to participate in the market.

The historic importance of this plan is that it put forward the idea of utilizing the mortgage to issue bonds so as to raise the funds for the economic development. From our observation, we can find the embryo of the modern mortgage financing institutions, such as the installments, the loan-to-value ratio and the quasi-GSE institutions in the U.S. The excellence of German mortgage banking system based on the real estate is one of the important reasons for the Germany's emergence in the late 19th century.

This Landschaften system proved so successful that it was adopted outside of Prussia in

[116] See § 5a (Protection of the name "Pfandbrief").
[117] See § 2 Licence (1).
[118] Patrick Quirk, Cover Me: The Economy Is on Fire (The German Pfandbrief), German Law Journal, Vol. 11 No. 12, P1329.
[119] Specifically, the Act on Pfandbriefe and Related Bonds of Public Sector Credit Institutions (Gesetz über die Pfandbriefe und verwandten Schuldverschreibungen öffentlicher - rechtlicher Kreditanstalten; ÖPG); the Mortgage Bank Act (Hypothekenbankgesetz; HBG); the Act on Ship Pfandbrief Banks (Gesetz über Schiffspfandbriefbanken; SchBkG).

German states. Later this model was copied by the other European countries, including the Russian Baltic provinces and in Poland as well, and eventually spread to North, Central, South-East and Eastern Europe (Denmark[120], Sweden, Norway, Finland, the Baltic states, Poland, Romania and Austria).

2.2.1.2 The covered bond markets within Europe

The covered bonds now are considered as an instrument of funding and liquidity management tool of systemic importance. The covered bond markets are critical to both funding real estate and public sector loans and for commercial banks' liquidity management[121]. Covered bonds are increasingly used in the marketplace as funding instruments, in addition to family deposits. It enables credit institutions to obtain funds with lower cost in order to grant new mortgage loans for housing and non-residential property as well as, in certain countries, to finance public debt. By the end of 2010, there are EUR 2.5 trillion outstanding covered bonds in more than 25 countries[122], they play an important role in the financial system and contribute not only to the efficient allocation of capital, but also ultimately to economic growth. Despite its increasing importance of covered bond in the European capital market, little attention has been paid to it by the specialized financial press. There is only one specialized annual market research commenced by the European Mortgage Federation

Germany is still the largest covered bond or pfrandbrief market in Europe, which has a story more than 200 years and has experienced many changes in the management and regulation of these instruments. The latest regulation about pfandbrief was introduced in 2005. Under this act, any lenders with a special license can be involved in the covered bond market, no longer required to have a specialized bank status. The covered bonds are mainly based on the following four kinds of assets: Mortgage, Public sector bonds, Ship and Aircraft[123].

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[120] Danish covered bond lending emerged after the Great Fire of Copenhagen in 1795, when a quarter of the city burnt to the ground. After the fire, a great need arose for an organized credit market as a large number of new buildings were needed over a short period of time. Nearly all real estates are today financed with covered bonds in Denmark, and Denmark is the 3rd largest issuer in Europe.

[121] Jay Surti, Can Covered Bonds Resuscitate Residential Mortgage Finance in the United States? IMF Working Paper, December 2010, P21.

[122] In 2010, the US outstanding ABS, including agency-and GSEs-backed securities and MBS, is 2341.5 billion dollars. In this sense, the EU zone share a similar market scale with the U.S counterpart.

[123] See Germany Pfandbrief Act (PfandBG), section 1 "definitions".

The name for covered bond in France is Obligations foncières, which are issued by sociétés de credit foncier, specialized credit institutions under the dual supervision of French banking regulator and special rules. They are governed just by a single purpose: to grant or acquire eligible assets, as defined by law and to finance these assets by issuing covered bonds, which benefit from a legal privilege[124].

The covered bond in Spain is "Cédulas Hipotecarias" and the first issuance of covered bond dates back as far as 1861[125]. CB are regulated by the Spanish Mortgage Act of 1981, which was subsequently developed by a series of Royal Decrees up until 1991.

The Danish mortgage system is among the most sophisticated housing finance markets in the world and presents some unique characteristics[126]. Mortgage bonds comprise just over seventy percent of the Danish bond market[127]. The combination of a tight regulatory framework with developed specialized, "in-house" expertise in lending and credit assessment, and in wholesale funding and risk management has translated into a highly rated system (and institutions), able to deliver a variety of mortgage products at close to capital market conditions[128].

2.2.1.3 The basics of mortgage covered bond

The legal frameworks for covered bond are distinct across different jurisdictions within Europe. However, covered bonds are homogenized in the following aspects: they are debt instruments secured by a cover pool of mortgage loans (property as collateral) or public-sector debt to which investors have a preferential claim in the event of default[129]. The assets so constituting collateral are called "cover-pool" assets. Unlike normal collateral, however, these assets are "ring-fenced" or "bankruptcy remote" to give covered bondholders

124 Raquel Bujalance and Eva Ferreira, An analysis of the European covered bond market, first draft, P6. Available at: http://www.uibcongres.org/imgdb/archivo_dpo3674.pdf.
125 Raquel Bujalance and Eva Ferreira, An analysis of the European covered bond market, first draft, P6. Available at: http://www.uibcongres.org/imgdb/archivo_dpo3674.pdf.
126 IMF, The Danish Mortgage Market - A Comparative Analysis ,2007, P3, available at http://www.imf.org/external/pubs/ft/scr/2007/cr07123.pdf.
127 Jocelyn H. W. C. Chong, Danish Mortgage Regulations - Structure, Evolution, and Crisis Management, 9 Wash. U. Global Stud. L. Rev. 371,2010, P373.
128 IMF, The Danish Mortgage Market - A Comparative Analysis ,2007, P3,available at http://www.imf.org/external/pubs/ft/scr/2007/cr07123.pdf.
129 See the website of European covered bond council: http://ecbc.hypo.org/Content/Default.asp?PageID=504, visiting date 2011-5-11

greater protection in the event of the issuer's bankruptcy. It is argued that covered bonds combine the scale advantages of capital market funding with on-balance sheet credit risk management by the lender. The participants thus have more sufficient incentives for a right assessment of the collateral quality, repayment capacity and closer monitor over the activities of borrowers.

The Cover for Pfandbriefe

Among the institutional lenders in Germany, the Pfandbriefe banks are in a dominant position for the supply of housing credit. They are operated in a distinct way compared to the traditional banks: the funds for extending credit are collected not by gathering the household deposits, rather by the issuance of covered bonds (Pfandbrief).

Bondholders have a claim against a cover pool of financial assets in priority to the unsecured creditors of the credit institution. A cover pool is a clearly identified, "ring-fenced" pool of assets dedicated to secure the covered bonds. In the event of the insolvency of the credit institution, the assets in the cover pool will be used to repay the covered bondholders prior to the unsecured creditors of the credit institutions. In order to"ring-fence" the cover pool, the special law of most jurisdictions either excludes the cover pool from the insolvency estate of the credit institution, or provides covered bondholders with a preferred claim within the insolvency estate itself. In some other jurisdictions, the SPE is employed to preserve the cover pool from the insolvency estate of the credit institution.

The credit institution has the ongoing obligation to maintain sufficient assets in the cover pool to satisfy the claims of covered bondholders at all times. A) In order to maintain the sufficiency of assts, over-collateralization is required, namely the value of the cover pool is required to exceed the value of the covered bonds by a prescribed amount[130]. B) The credit institution has the ongoing obligation to ensure that the value of cover pool assets is equal to

[130] See § 6 (Cover for Pfandbriefe) of Germany Mortgage Bank Act, which provides that "1The total volume of Mortgage Pfandbriefe ("Hypothekenpfandbriefe") outstanding must at all times be covered at their nominal value by mortgages of at least the same amount and with at least the same interest yield (ordinary cover)." In addition, the cover for the Mortgage Pfandbriefe ("Hypothekenpfandbriefe") must be ensured at all times according to the net present value and the net present value of the recorded cover pool must exceed the total volume of liabilities resulting from Mortgage Pfandbriefe ("Hypothekenpfandbriefe") and derivatives to be covered in accordance with par. 6, sentence 2 by 2 percent (securing excess cover).

or higher than the value of the covered bonds at all times. if some assets become matured or defaulted, The credit institution may therefore be required to add further assets to the cover pool to compensate the asset reduction. However, the sponsoring credit institution in securitization is generally not compelled to replace assets which enter into default after they have been transferred into the securitization portfolio.

Supervision of the credit institution's obligations in respect of the cover pool ("special" supervision) is specifically and only for the benefit of covered bondholders, as opposed to supervision relating to the general stability of financial or other markets, general customer interest, deposit protection, and the like. This "special" supervision is distinct from the general supervision of the credit institution. The typical features of "special" supervision include: a special cover pool monitor; periodic audits of the cover pool by the cover pool monitor; and ongoing management and maintenance of the cover pool upon the credit institution's insolvency to ensure the timely payment of covered bondholders.

Pfandbriefe and the "True Sale" Doctrine

German Pfandbrief does not result in a 'true sale' of the relevant mortgages to the Special Purpose Entity (SPE), upon which the magic of securitization depended[131]. In fact, there is no 'sale' at all. They must remain on the balance sheet of the originating bank. At the same time, the special provisions of the Pfandbrief Act render them specially immune from the bankruptcy of the originating bank and secured from the claws of its general creditors and this "Bankruptcy remoteness" is a key attraction of the entire Pfandbrief supervisory regime. Pfandbrief holders are said to enjoy an insolvency privilege whereby the "assets recorded in the cover registers do not form part of the insolvency's estate." §30(1) of the Pfandbrief Act provides that:

> If insolvency proceedings (Insolvenzverfahren) have been commenced against the assets of the Pfandbrief bank, the assets recorded in the cover registers shall not be

[131] See Kettering, Kenneth C., Securitization and Its Discontents: The Dynamics of Financial Product Development, 29 CARDOZO L. REV. 1553; NYLS Legal Studies Research Paper No. 07/08 - 7 (2008) (explaining the criticism by leading authors criticizing of this magic), available at SSRN: http://ssrn.com/abstract=1012937

part of the insolvency estate (Insolvenzmasse). The claims of the Pfandbrief creditors shall be satisfied in full using the assets recorded in the respectivecover register; they shall not be affected by the commencementof insolvency proceedings against the assets of the Pfandbrief bank. Pfandbrief creditors will participate in the insolvency proceedings only in the scope of para. 6 sentence 4.

Many other insolvency privileges also accrue. First, Pfandbriefe do not automatically accelerate when the issuer becomes insolvent[132]. This prevents them becoming due immediately and allows payment in the normal course. Second, judicial intervention in the insolvency estate (e.g. in the form of a stay) will not affect the cover pool, or “special legal estate” of the Pfandbrief. Third, Pfandbrief bank insolvency will result in the appointment of “cover pool administrators” who oversee the cover pool of Pfandbrief assets for the benefit of the Pfandbrief holders. These administrators then receive the right to “administer and dispose of the registered assets.”[133] Fourth, if cover assets are not sufficient to satisfy the claims of Pfandbrief holders, they may have recourse against other assets of the bank[134]. Fifth, the sale of cover assets to other issuers is facilitated by specific provisions in the Pfandbrief Act.[135]

So we can observe that this statutory bankruptcy isolation indeed protects the safety of the bond investors. More importantly, it eliminates the legal uncertainty about the bankruptcy isolation, which are frequently criticized in the U.S. Mortgage securitization practices.

2.2.2 The mortgage-backed securitization in USA

If we want to be clear about the origination and the development of the mortgage market and securitization, there are three important historical points that deserve our close attention.

[132] See Questions on German Covered Bond Legislation Dr Otmar Stöcker, Managing Director, Association of German Pfandbrief Banks, 13 Sept. 2006.

[133] Pfandbrief Act §30 (2), sentence 2. If the Pfandbrief bank has disposed of an asset recorded in the cover register after the appointment of the cover pool administrator, such disposal shall be invalid (sentence 3).

[134] In most covered bond structures, the bonds granted investors direct full recourse regarding to the credit institution’s full resources. Full recourse to a credit institution is a key difference between the U.S mortgage securitization and EU covered bonds. In the U.S mortgage securitization, MBS holders’ only recourse is to the cash flow from a securitized portfolio of assets. The banks which originated the assets typically do not guarantee the performance of the securitization. Therefore, if the cash flow from the securitized portfolio is insufficient to make payments on the securitization units when expected, holders of the units would generally have no claim against the credit institution which originated the securitized assets.

[135] See id. §32 (I).

Through historical research, we can understand the great changes of mortgage lending during the past 80 years in U.S. *The first point* is the era of the Great Depression in the 1930's in which system-wide changes occurred in the mortgage market through the New Deal legislations. The new deal has transformed the mortgage radically with respect to its structure and consequently its market size, namely from a separated mortgage market in individual community to a nationwide mortgage market[136]. Taking into consideration of the current financial crisis, we find that the institutional infrastructure established by the New Deal legislation still has great influence on the existing housing finance system in U.S, and it needs detailed scrutinization of these legislation so as find the causes of the current crisis. *The second* one is the inflation of the late 1960's, bringing about a new crisis to mortgage lending because of the increase of interest rate which was caused by the disruption of the Bretton Woods System. Since then the interest rate risk becomes increasingly obvious for the banking industry and finally caused the thrift crisis in America in the late 1970's. The securitization grew steadily from that time. In this period, there occurred an important event which is crucial to the origination of securitization: the standardization of mortgage. *The third historic* is the disaster of "9.11" in 2001. The Bush Administration created a long-term low-interest environment in order to foster the wounded American economy. This low-interest environment, combining the deregulation and the other factors, causes the sub-prime crisis and consequently a worldwide financial crisis.

During these three historical periods, the government and legislators have played a very important role reacting to the changing economic environment, although not always positive. In this part we will scrutinize these three periods of mortgage lending and demonstrate how the mortgage has been transformed from a lien into a commodity in the capital market of the U.S., and how these changes have sowed the seeds for the current financial crisis.

2.2.2.1 The creation of Government-Sponsored Enterprises (GSEs) supporting the amortizing mortgage

There are two key features of the modern housing finance system that make mortgages on

[136] At the same time, the mortgage lending is supported on the local deposit in the thrift locating in the corresponding community.

U.S. residential properties extremely liquid: the insurance that the mortgage investor receives against default risk and the deep secondary market in bundled-mortgage securities[137]. With particular reference to the "insurance", it was first provided by the federal programs and agencies since the New Deal in the 1930's which also helped establish the secondary mortgage market and later encourage the proliferation of MBS. The great contributions of these federal entities include: encouraging affordable housing through lowering interest rates and transaction costs, increasing credit supply and enhancing liquidity of the housing and mortgage markets. In this sense, it is necessary to do a retrospective overview of the origin and development of these federal programs and agencies.

2.2.2.1.1. The introduction of amortizing mortgage

The origin of "insurance" for mortgage loans could be attributed to the structural change of mortgage, namely the amortizing mortgage imposed credit risk over the lenders. One far-reaching influence of the Great Depression legislation on the mortgage industry is the introduction of the amortization. The structure of the modern American mortgage has evolved over time. The U.S. mortgage before the 1930's would be nearly unrecognizable today: it featured variable interest rates, high down payments and short maturities, usually from 5 to 10 years. Payments were made of interest only, a rate of usually no less than 8%. Upon maturity, the borrower should pay the entire principle. The lenders usually finance less than 60 percent of the price of a house. So before the 1930's, there no existed the amortizing mortgage loan. And the predominant use of short-term mortgage loans, typically requiring no amortization and a balloon payment due in 3 or 6 years, to finance housing, was a significant factor contributing to the mortgage market crisis of the Great Depression in the 1930's. For this reason, one of the most important responses of the Federal government was by enacting legislations encouraging the development of long-term amortizing mortgage loans and this significant innovation made homeownership accessible to more American families, much smaller down payment, less monthly payment, and fix interest rate during the life of the loan.

[137] Price V. Fishback, William C. Horrace, and Shawn Kantor, The Origins of Modern Housing Finance: The Impact of Federal Housing Programs During the Great Depression, University of Arizona and NBER, Working paper, September 2001.

The importance of the amortization lied in the fact that it gave households the opportunity to gradually own their homes, and would prevent, or at least reduce the likelihood of a future mortgage money crunch. By the creation of a sound mortgage instrument with amortization, or periodic payments of the entire mortgage balance over a long period of time[138], borrowers could thereby pay off the loan from their monthly incomes without confronting a balloon payment every few years, and an ensuing scramble to refinance the expiring mortgage. The periodic equal payments similar to rent reduce the likelihood of mortgage foreclosures because homeowners would grow accustomed to the mortgage payments as one of their usual household expenses. On the other side, the monthly mortgage payment could also enhance the certainty lenders felt that satisfaction of mortgage debt would follow[139]. So the lenders could risk issuing larger mortgages with higher percentages of the value of homes, and lend to an increasing number of American families who only have the money for the down payment.

For this purpose, the Home Owners' Loan Act of 1933 which was aimed "to refinance home mortgages and to extend relief to the owners of homes who occupy them and are unable to amortize their debt elsewhere"[140]. The Home Owners' Loan Corporation (HOLC)[141] was created to achieve these goals through originating mortgage loans to borrowers. The HOLC could also issue its own bonds to local lenders in exchange for delinquent mortgages in their portfolios. The lending record of the Home Owners' Loan Corporation exhibited its pervasiveness in the 1930's American society and showed that the HOLC held an important place in American mortgage history. As Kenneth T. Jackson has identified, the HOLC "introduced, perfected and proved in practice the feasibility of the long-term self-amortizing mortgage with uniform payments spread over the whole life of debt"[142]. It received 1,886,491 applications for home mortgage refinances between June 13, 1933 and June 27, 1935, which was the dead line for the application. Over 50% of those loans were closed by the HOLC with a total outlay of mortgage money exceeding ＄3 billion. And the Corporation has made 20%

138 James S. Olson, Saving Capitalism: the Reconstruction Finance Corporation and the New Deal: 1933-1940, Princeton University Press, 1988.
139 Peter M. Carrozzo, A new deal for the American mortgage: the home owners' loan corporation, the national housing act and the birth of the national mortgage market. 17 U.Miami Bus. L. Rev.1, Winter 2008.
140 Rossevelt's Bill Proposing Refinancing of Mortgage for Home Owners, N.Y. Times, Apr. 14, 1933, at 2. See
141 The HOLC stopped lending circa 1935, once all the available capital had been spent, and began the process of liquidating its assets. HOLC officially ceased operations in 1951, when its last assets were sold to private lenders. See Jonathan D. Rose, The Incredible HOLC? Mortgage relief during the Great Depression, January 15, 2010. http://www.uncg.edu/bae/econ/seminars/2010/Rose.pdf visiting date: 2011-7-13.
142 Kenneth T. Jackson, Crabgrass frontier: The suburbanization of the United States, 193 (1985).

of the mortgaged loans originated since the outset of 1933[143]. The essence of the HOLC is merely to handle “extreme emergency cases” by Federal government’s assuming the mortgage debt. But this is not a permanent solution, so it was liquidated in 1951.

2.2.2.1.2. The insurances offered by federal programs

In order to stimulate the building without government spending, improve conditions with respect to home financing and rely mainly on private capital, a second important New Deal legislation, the National Housing Act come into force in 1934 which offered the “insurances” necessary to protect the safety of lenders’ loans, namely the government guarantee and direct purchase of conforming mortgage loans. This legislation followed approach described as “creating employment through home improvement loans, creating a sound mortgage instrument, enhancing lender confidence through insurance for mortgages and a national appraisal system, and increasing liquidity by creating a secondary market for sound, safe and (thus) tradable mortgages”[144]. Thus, this legislation has made many institutional innovations and modernized the mortgage industry as hereinafter explained.

The most important agency established by the “National Housing Act” is the *Federal Housing Administration* (hereinafter referred to as FHA), which is designed to provide credit insurance to eligible loans of and purchase obligations from the lending institutions according to section 2 of this legislation. The guarantee from the U.S government gave lenders confidence and thus provide safety and liquidity to the secondary mortgage market. The FHA mortgage insurance program preserved the role the private lenders as the major suppliers of residential mortgage credit, and at the same time encouraged those lenders to make credit available by promising to purchase these mortgages that went into default[145]. Through the FHA insurance program, lenders received protection for originating long-term loans with relatively small down payments made by borrowers. As the administrator Steward McDonald

143 Peter M. Carrozzo, A new deal for the American mortgage: The home owners’ loan corporation, the national housing act and the birth of the national mortgage market, 17 U. Miami Bus. L. Rev.1, Winter 2008.
144 Peter M. Carrozzo, A new deal for the American mortgage: the home owners’ loan corporation, the national housing act and the birth of the national mortgage market. 17 U.Miami Bus. L. Rev.1, Winter 2008.
145 James Charles Smith , Economic regulation during turbulent times: The structure causes of mortgage fraud, 60 Syracuse L. Rev. 473, 2010.

testified in the hearings in 1937, the FHA has issued debentures of ＄37,000 and insured mortgages in a total amount of 614,000,000 as of January 1937. And during the period from 1935 to 1937, there only occurred 12 foreclosures in the entire United States. The philosophy or the main object of the FHA is to assist low-and moderate-income families to buy homes on more favorable terms and with lower interest rate than ever before, while the philosophy of HOLC was to "relieve individuals in distress" because the borrowers and lending institutions were in financial trouble.

The FHA and the later VA mortgage guarantee program created a national market for the eligible loans. However, they did not create national markets for the origination and holding of mortgage loans and the federal intervention in residential mortgage lending did not transform local lending markets during the period between the 1930's and the 1970's[146].

. At the same time, the Administrator of FHA is further authorized and empowered to provide for the establishment of *national mortgage associations* (1) to purchase and sell first mortgages as are commonly given to secure advances on real estate; (2) to borrow money for such purposes through the issuance of notes, bonds, debentures, or other such obligations as hereinafter provided. Although the concept of mortgage associations was in the National Housing Act, these institutions never came into being in the form of private enterprises because of the lack of confidence from investors about the mortgage market. So some professionals proposed an amendment which would create a national mortgage association as an extension of the Reconstruction Finance Corporation. With the government-guarantee feature, the insured mortgages would be turn into safe debentures which will attract various investors, such as trust funds, insurance companies. This national mortgage association would restore the flow of private capital into the American mortgage system.

As a result, these proposed amendments to the National Housing Act were passed and signed by the President on February 5, 1938, and the *National Mortgage Association of Washington, D.C* was charted as a subsidiary of the Reconstruction Finance Corporation. Two months later, this association was changed to *Federal National Mortgage Association* (FNMA)

[146] James Charles Smith, Economic regulation during turbulent times: The structure causes of mortgage fraud, 60 Syracuse L. Rev. 473, 2010.

or Fannie Mae, aiming to enhance the liquidity to the mortgage industry. It was initially a government agency that issued bonds to raise funds for the purchase of FHA-insured mortgages and Veteran's Administration (VA)-guaranteed mortgages. In 1968[147] Congress divided Fannie Mae into two entities - Fannie Mae, which became a GSE and was allocated the secondary market operations of the former entity, and the Government National Mortgage Association (Ginnie Mae), which remained a division of HUD[148]. The concept of mortgage market embodied in these national mortgage associations ultimately would liberate and reinvent mortgage as a new investment vehicle; a deluge of new money would flood the mortgage industry and democratize homeownership, making it accessible to a number of American families[149].It provided local banks with federal money to finance home mortgages through creating a liquid secondary mortgage market. It became possible for banks and other loan originators to issue more housing loans, primarily by selling their mortgage loans to the secondary mortgage market. This is the most revolutionary proposal in the legislation because it is the origin of the idea of "secondary mortgage market". The creation and functioning of this national mortgage association, together with the credit insurance from FHA, made the mortgage become into a marketable commodity, and enhanced the liquidity to the mortgage market.

Besides, in order to increase the security in the soundness of mortgage investments, the *Federal Credit Insurance Corporation* was created to insure amortized mortgages which met certain requirements, such as amortization, ceiling interest rates, a certain percentage of down payment relative to the overall value of the mortgage loan. This "insurance feature" would be of no cost to the government.

[147] In 1954, an amendment known as the Federal National Mortgage Association Charter Act made Fannie Mae into "mixed-ownership corporation" meaning that federal government held the preferred stock while private investors held the common stock; since then Fannie Mae became a quasi-private corporation with partial ownership by private shareholders.

In 1968, Fannie Mae was divided into two separate entities, the new Fannie Mae and Government National Mortgage Association (GNMA or "Ginnie Mae"), according to the Housing and Urban Development Act. The new Fannie Mae, a publicly held corporation through which the activity and debt were removed from the federal budget, continued to purchase the FHA and VA mortgages from originators. Ginnie Mae, which remained as a pure federal agency in the Department of Housing and Urban Development, supports FHA-insured mortgages as well as Veterans Administration (VA) and Farmers Home Administration (FmHA) insured mortgages, with the full faith and credit of the United States government.

[148] See Housing and Urban Development Act of 1968, Pub. L. No. 90-448, § 802(c), 82 Stat. 476, 536 (codified at 12 U.S.C. § 1717(2),2006.

[149] Peter M. Carrozzo, Marketing the American Mortgage: The Efficiency Home Finance Act of 1970, Standardization and the Secondary Market Revolution, 39 Real Prop. Prob. & Tr. J.765 (2005).

Finally, during the period from 1933 to 1938, the New Deal legislations discussed above has inspired a system-wide change and radical evolution in the American mortgage market. They established a national mortgage system, increased the security of mortgage investment and enhanced the liquidity for the mortgage industry through the establishment of a secondary mortgage market. As a result, the mortgage loans since then were featured as “lower rates, lower down payment, lower payments and longer terms of home-buying finance”.

So we can find that the idea of converting mortgage from stagnant lien into marketable commodities arose in the provisions of “national mortgage associations” in the National Housing Act, which were specialized in purchasing mortgage loans and obligations. Since then, mortgage was no longer a stagnant lien, and also a tradable commodity on the secondary mortgage market. As time evolved, the commoditization of mortgage was further deepened as discussed in the sequent parts.

2.2.2.2 The expansion of secondary mortgage market: Origin and development of mortgage securitization

Although the New Deal legislations have established the national secondary mortgage market for the FHA and VA insured residential mortgages, the secondary mortgage market remained largely inactive during the 1950’s and most of the 1960’s[150]. This was for the reasons that (1) the majority of the mortgage lending, the conventional mortgages, did not get the governmental guarantee as the FHA and VA mortgages to which the secondary mortgage market was limited at that time. (2) at the same time the mortgage lending has always been a practice of local market before the 1970’s. Even the FHA and VA mortgage market has been a series of local submarkets loosely tied together[151]. As observed by the chief economist of Freddie Mac, U.S residential mortgage markets were dominated by the primary market between the end of second word war and the 1970’s.[152] The conventional mortgages, which constitute the mainstream of the mortgage lending in US, were mainly dominated by the

[150] Joseph Shenker & Anthony Coletta, Asset Securitization: Evolution, Current Issues and New Frontiers, 69 Tex. L. Rev. 1369, 1372 (1991).
[151] Raymond A. Jensen, Mortgage standardization: History of interaction of economics, consumerism and governmental pressure, 7 Real Property, Probate and Trust Journal, 1972, P397.
[152] Robert Van Order, The U.S. Mortgage Market: A Model of Dueling Charters, Journal of Housing Research · Volume 11, Issue 2, Fannie Mae Foundation 2000.

Savings & Loan whose operation is limited into a local territory because of the locality of the legal framework surrounding real property. That is, the real estate law in US is legislated by states, not the federal government, and thus constituted its local natural. This, to a certain extent, inhibits the development of uniformity and standardization of mortgage lending.

The local characteristics of mortgage finance system of U.S were greatly transformed by the economic inflation since the late 1960's, second only to the Great Depression in the 1930s[153]. The negative effect of this inflation is the burst of a mortgage credit crunch from the Savings & Loan, and finally the Savings & Loan insolvency crisis [154]ensued at the beginning of 1980's. This credit crunch has imposed great influences on the role of banks and thrifts which were transformed from spread banking[155] to conduit banking.

2.2.2.2.1 The expansion of secondary mortgage market

In order to increase the supply of mortgage credit, U.S administration reformed its mortgage finance system through expanding its secondary mortgage market, so as to channel more private capital into the primary mortgage market. Under *The Emergency Home Finance Act of 1970*, the federal government authorized Fannie Mae to purchase conventional mortgages primarily from commercial banks and mortgage banks[156], i.e. those not insured by the FHA and VA. And at the same time, a new entity, named the *Federal Home Loan Mortgage*

[153] Peter M. Carrozzo, Marketing the American Mortgage: The Emergency Home Finance Act of 1970, Standarization and the Secondary Market Revolution, 39 Real Prop. Prob. & Tr. J. 765 (2004-2005), P767.

[154] Because of the serious inflation, interest rates to depositors rose while the interest rates to the borrowers of saving $ loans were limited by the regulation Q, which put a ceiling on the interests rates that the thrift could pay for the deposits. The saving $ loans thus beard a loss for the reason of interest rate regulation. In order to lessen the loss, the saving $ loans could only pay a lower interest rates to their depositors. As a result, the investors move funds out of savings institutions. The amortization made the situation worsen, because of decreasing spread between the interest rate of the long-term mortgage loan and that of the high and volatile short-term deposits from the families in the community in the 1970's and 1980's. So the saving $ loans could not attract enough savings from the families of community and advanced new mortgage loans.

[155] The spread banking is based on a straightforward operation: gather deposits to fund loans and keep the spread between the total costs and the yields of the loan transaction as the profit. As long as the interest rates are kept stable and thus the spread is positive, the thrifts and banks can get deposits to fund loans and thus gain profit from this intermediary operation. However, the situation changes when the interest rate becomes higher and volatile and the short-term floating interest rate of deposits increased above the long-term fixed rate of mortgage loans. The families withdrew their deposits out of the banks and thrifts and redirected them to investments offering higher profits. And thus the banks and thrifts had lost millions of dollars to fund new mortgage loans. Consequently, the banks and thrifts became less important suppliers of mortgage loans. These changes caused the decline of these credit institutions' profitability from the late 1970's through the early 1980's, and they had to find new alternative funding sources which at the same time could help them hedge or reduce their exposure to interest rate risk resulting from the mismatch between funding sources and mortgage loans.

[156] James E. Murray, The Developing National Mortgage Market: Some Reflections and Projections, 7 REAL PROP. PROB. & TR. J. 441, 445-446,1972.

Corporation (FHLMC), colloquially known as Freddie Mac, was created, under the Federal Home Loan Bank Board, to provide secondary mortgage market for mortgages originated by the savings and loan industry. It competes with Fannie Mae and thus facilitates a more robust and efficient secondary mortgage market. In this respect, the secondary mortgage market was expanded from conforming mortgages to conventional mortgages. The expansion of secondary market to conventional mortgage can help improve the availability of mortgage credit. According to the Emergency Home Finance Act of 1970, Fannie Mae would have the power to purchase and sell any mortgage with a loan-to-value not more than 75% or less. If the loan-to-value is in excess of 80%, the involved mortgage should be guaranteed or insured. According to some scholars, this legislation has "forever transformed the mortgage from that understood by 12th century English common law as a dead pledge burdening land into the freely transferable commodity of toady." And this act was a decisive step toward the marketing of American Mortgage.

This expansion of secondary market to conventional mortgage declaimed the end of the fragmented local mortgage market. The lenders, once prevented from making direct mortgage loans outside of their locality for the difficulty of evaluating the credit quality of the mortgaged properties and the legal restriction on interstate banking, could be involved in national mortgage transactions. Consequently, a national integration of the mortgage market was achieved and the mortgage capital can flow around the whole country, from the regions where the supply exceeds the demand to the regions where the mortgage funds are not sufficient. Thus, the 1970's is a fascinating period for the development of the secondary market for conventional home mortgage loans.

2.2.2.2.2 The proliferation of MBS

It is notable that GSEs's operation was limited to issue bonds, use the proceeds to purchase mortgages, either conforming or conventional, and hold them in their portfolio until maturity. However, this secondary market under such operating model, the buying and selling of mortgages, was relatively illiquid. The lenders were subject both the default risk and interest rate risk. The buyers, namely the GSEs, were not able to sell their loan portfolios both quickly and at an acceptable price. Holding the loans also meant exposure to the risk that rising interest rates could drive a lender's interest cost higher than its interest income[157]. In order to enhance the liquidity of the purchased mortgage loans and attract more investors, mortgage pass-throughs, and later collateralized mortgage obligations (CMO) which was a more complicated twist on pass-throughs, were created by financial institutions. Through pooling similar loans, the payments to mortgage principles and interests are no longer hold by GSEs, but transferred to the certificate holders or investors, and these are the Agency and GSE-backed securities. What were traded on the capital market are no longer the illiquid mortgages but transferable mortgage certificates or MBS. Investors now had a liquid instrument and lenders had the option to move any interest rate risk associated with mortgages off of their balance sheet. As a result, the secondary mortgage market became more attractive both to investors and lenders.

In 1971, Freddie Mac issued the first mortgage pass-through security[158] which was backed by conventional loans[159] and thus was a dramatic innovation in the secondary mortgage market. In 1983 Freddie Mac issued the first Collateralized Mortgage Obligation (CMO) [160], which created multiple classes of bonds all backed by the same mortgage pool but with each class paid sequentially as principal payments were received from the underlying mortgages. Fannie Mae began securitizing mortgage loans in the 1980's[161]. Since then, the agency mortgage securitization began to proliferate, based on the guarantee granted by the GSEs. Through their purchases and securitization of residential mortgage loans, the two GSEs together provide the largest source of home mortgage financing in the nation. And the above proposals laid out for marketing mortgages and developing a broader secondary mortgage

157 See Statement of Cameron L. Cowan, Partner Orrick, Herrington, and Sutcliffe, LLP On behalf of the American Securitization Forum, Before the Subcommittee on Housing and Community Opportunity, Subcommittee on Financial Institutions and Consumer Credit United States House of Representatives, Hearing on Protecting Homeowners: Preventing Abusive Lending While Preserving Access to Credit, November 5, 2003, P2.

158 With pass-through MBS, the investor purchases a fractional undivided interest in a pool of mortgage loans, and is entitled to share in the interest income and principal payments generated by the underlying mortgages. see Julia Patterson Forrester, Fannie Mae/Freddie Mac Uniform Mortgage Instruments: The Forgotten Benefit to Homeowners, 72 Mo. L. Rev. 1077, Fall, 2007.

159 Joseph C. Shenker and Anthony J. Colletta, Asset Securitization: Evolution, Current Issues and New Frontiers, 69 Tex. L. Rev. 1369, May, 1991.

160 A collateralized mortgage obligation (CMO) is a type of financial debt vehicle that was first created in 1983 by the investment banks Salomon Brothers and First Boston for U.S. mortgage lender Freddie Mac.

161 Andrew R. Berman, Once a Mortgage, Always a Mortgage — The Use and Misuse of Mezzanine Loans and Preferred Equity Investments, 11 STAN. J.L. BUS. & FIN. 76, 92, 2005.

market is respected as one of the greatest business innovation in the 20th century[162].

2.2.2.2.3 The institutional standardization of mortgage documents since the 1970's

Another profound progress facilitating the expansion of secondary mortgage market is the standardization of mortgage documentation which helped supersede the local characteristics of mortgage lending mentioned above.

In the 1970's, the expansion of the secondary mortgage market to the conventional mortgage produced the potential hazard that made the GSEs remain as the permanent repository for all such mortgages. In order to convert mortgage into a publicly tradable commodities, it was necessary to develop a standard mortgage form. The lack of uniformity in mortgage documents and procedures createed less liquidity and poor investment alternatives. Thus a government agency involved in a secondary mortgage market for these illiquid conventional loans would require greater capital to meet the potential increased losses and costs involved. So less uniformity means less liquidity for the mortgage market. The investors of MBS want safe, predictable investments with moderate returns, so investments in pools of heterogeneous conventional mortgages is very speculative and thus of high risk. Uniformity of mortgage makes the mortgage-backed bonds or securities more predictable and thus reliable. Without a standardized mortgage document and uniform lending techniques, the secondary mortgage market never would have gotten off ground[163].

At the same time, the establishment of secondary mortgage market had a positive influence on the standardization of conventional residential mortgage. The legislators anticipated the emergence of standard-form conventional mortgage as what has happened in the Fannie Mae secondary market in FHA and VA mortgages. Document and procedure standardization accelerated the loan review process, because uniform mortgages created certainty and translated into marketable mortgages and secure investors[164].

162 Among these business innovations, they also include Harley Earle's ideas for market American cars, William Levitt's ideas for rapid construction of affordable housing and the McDonald brothers' and Ray Croc's ideas for the production of affordable housing and the marketing of fast foods. See David Halberstam, The Fifties (1996).
163 Peter M. Carrozzo, Marketing the American Mortgage: The Emergency Home Finance Act of 1970, Standarization and the Secondary Market Revolution, 39 Real Prop. Prob. & Tr. J. 765 (2004-2005), P778.
164 Peter M. Carrozzo, Marketing the American Mortgage: The Emergency Home Finance Act of 1970, Standarization and the Secondary Market Revolution, 39 Real Prop. Prob. & Tr. J. 765 (2004-2005), P800.

The standardization of mortgage documents was initiated by the FHA which attempted to modernize or standardize mortgage within each state taking into consideration of the diversity of mortgage laws in different jurisdictions. Meanwhile trade associations and larger lenders had also developed standard forms. The greater concern of institutional investors requires the standardization in the areas such as underwriting criteria, appraisal practices, and all the non-legal documents supporting the loan. However, the initial efforts for standardization were for the convenience of the lenders rather than to make the loans transferable on the secondary market[165], and never intended to create fungible product and saleable mortgages for the development of the secondary mortgage market.

Conventional home mortgage documents needed to be standardized in order to create a secondary market for the loans, and this standardization of mortgage documentation was studied and enforced by Fannie Mae and Freddie Mac. Fannie Mae formed a task force composed of attorneys and representatives of lending institutions which concentrated on the analysis of substantive mortgage clauses which would be essential to make the mortgage saleable to investors. On November 18,1970 and On February 3, 1971 two exposure drafts were published which completed to standardize the mortgage documents. By 1975, Fannie Mae and Freddie Mac had reached a compromise and jointly published a set of uniform mortgage instruments which retained the consumer-friendly provisions negotiated in the early 1970s[166].

Because of their market dominance on the secondary mortgage market at that time, originators who wish to sell their loans to Fannie Mae or Freddie Mac must use the uniform instruments. At the same time, the GSEs gradually established some requirements for the loans they purchase, such as the maximum amount of loans, the loan-to-value ratio, the documentation, credit scores and etc. According to whether loans satisfied the established requirements, loans are divided into "conforming" and "non-conforming" ones. Loans that are non-conforming because they exceed the conforming loan limits[167] set by OFHEO, are called

[165] Julia Patterson Forrester, Fannie Mae/Freddie Mac Uniform Mortgage Instruments: The Forgotten Benefit to Homeowners, 72 Mo. L. Rev. 1077, Fall, 2007.

[166] Julia Patterson Forrester, Fannie Mae/Freddie Mac Uniform Mortgage Instruments: The Forgotten Benefit to Homeowners, 72 Mo. L. Rev. 1077, Fall, 2007.

[167] The Housing and Economic Recovery Act of 2008 expanded the definition of a "conforming" loan. Two sets of limits are provided for first mortgages -- general conforming loan limits, and high-cost area conforming loan limits. The 2011 general conforming loan limits are identical to those of 2006, 2007, 2008, 2009 and 2010, for example

"jumbo" loans. The use of Fannie Mae/Freddie Mac uniform mortgage instruments is, in fact, widespread in the prime mortgage market for both conforming and non-conforming loans and even in the subprime market to some extent. And this standardization of mortgage documentation greatly facilitates the securitization in the secondary mortgage market.

2.2.2.3 The changes to the banking industry caused by mortgage securitization

The mortgage securitization largely solved the problem of inadequate capital of the mortgage lenders by offering new source of funds, and their ability to originate new mortgage loans was no longer limited by the family deposits from the local communities. At the same time, mortgage securitization was also utilized by the financial institutions to offset the side effects of the changing macroeconomic environment, such as the serious inflation.

As a funding source, securitization offers several advantages over deposits and other funding alternatives. Firstly, asset securitization avoids certain "regulatory taxes" associated with deposit-taking. Secondly, securitization is often more cost effective than sales of loan participations or whole loans because it offers investors a more liquid investment (a tradable security) with more desirable risk characteristics and thus appeals to a wider pool of potential purchasers. Thirdly, by using securitization as a funding source, depository institutions may reduce the costs of maintaining capital in compliance with regulatory requirements. Finally, even after assets have been securitized, the depository institution still receives a steady income stream by retaining the right to service the asset on behalf of the investors.

Another influence caused by securitization to the banking industry is the uncoupling of the component functions in the mortgage lending once served by banks and thrifts as financial intermediaries, allowing for specialization by institutions with comparative advantages in one or more of these functions. This phenomenon was described by the scholars as “disintermediation”. For example, the banks and thrifts focus more on the origination function of mortgage lending, while the funding is left to the secondary mortgage market through the

the limit for single-family loan is $417,000. The high-cost areas are established by the Federal Housing Finance Agency and may vary depending on the geographic location and loan origination date. See http://www.fanniemae.com/portal/about-us/loan-limits/, visiting date: 2011-12-2.

securitization of the loans they originated. Sometimes, the loans are extended by a mortgage broker, thus enabling them to expand loan volume faster than deposit growth. The loans are usually serviced by a mortgage banker who does not originate it. The credit risk is beard by the GSEs, or along with insurance company. The investors in mortgage-backed securities are not involved in the origination, service or bearing the credit risk, just bearing the interest rate risk.

At the same time, the risks inherent in the traditional intermediary functions of banks and thrifts that became more pronounced as a result of volatile interest rates in the 1970s and 1980s[168], such as prepayment risk and interest rate risk, could be better managed through mortgage securitization, which essentially provides a direct match between the assets and the liability. Interest rate risk can arise from a mismatch of assets and liabilities: banks and thrifts with long-term, fixed-rate assets (*e.g.,* mortgage loans) and short-term, floating-rate liabilities (*e.g.,* money market accounts) are exposed to a high degree of interest rate risk. Securitization can help depository institutions manage interest rate risk in two ways. While variable-rate loans and the sale of loan participations enable a lender to share interest rate risk with borrowers or other depository institutions, asset securitization may, in certain cases, permit a lender to remove the asset from its portfolio altogether, thereby shortening the portfolio's average maturity, and to eliminate all interest rate risk associated therewith. Moreover, as buyers of MBS and other ABS, depository institutions can select securities with shorter weighted-average lives to match their short-term deposits. Thus, banks and thrifts have been big purchasers of "fast-pay" tranches of collateralized mortgage obligations.

Finally, securitization is also useful in managing the credit risk inherent in a depository institution's intermediary role. Credit risk is the risk that the obligor on a loan or receivable will not make full and timely interest and principal payments. In traditional lending, a bank or thrift tries to minimize credit risk by a review process before granting the credit and by a continuous monitoring and servicing process after granting the credit. Securitization permits a bank or thrift to reduce or reallocate its credit risk exposure with respect to the securitized

[168] For example, the prime interest rate charged by banks was 6.83% in 1977. The rate increased to 18.87 in1981. See See Board of Governors of the Fed. Reserve System, Average majority prime rate charged by banks on short-term loans to business, quoted on an investment basis, available at: http://www.federalreserve.gov/datadownload/Build.aspx?rel=H15, visiting date: 2011,10,09.

asset.

Conclusion

Through this long research about the history of mortgage evolution, accompanied by the analysis of the economic environment at the specific historic moment, we understand why there occurred these changes in the mortgage finance. More important, both the legal rules and economic institutions are studied in a dynamic environment, rather than in a stable point of the history. And thus we get a more dynamic description about the interplay between legal changes and the changing economic environment. The evolution of mortgage from a contractural arrangement to a lien and finally to a commodity is accompanied by the evolution of different economic patterns, the simple agriculture economy, the industiral economy and the current financial economy. We could also see that mortgage the civil law system and common law system shares a similar evolutionary track in the two transformations.

For the purpose of the topic of this dissertation, we have paid more attention to the second step of evolution. The idea of converting the mortgages from stagnant liens into marketable commodities in fact has a long history, and has been promoted both in Europe and the U.S, each of which develop distinct securitization approach,namely the EU statutory covered bond and the U.S mortgage securitization. Facing the grave economic crisis, the EU and U.S predecessors made this similar policy choice.This simple proposal gave birth to an investment revolution: the mortgages become a popular marketable commodities and mortgage financing becomes a trillions of dollar international industry as we see today. Comparaticely, the EU housing market and covered bond system were generally kept stable, while the U.S housing and mortgage market have experienced several market meltdowns since the start of the 20th century. Why does this difference has happened? Why the capital market in common law, which is asserted to be more efficient that that of civi law system, is not efficient in detering financial crisis? In the following analysis, we will try to answer this confusing question.

III The rotten legal foundations of Mortgage Securitization and the institutional causes of the financial crisis

In part two, we have in detail analyzed the evolution of mortgage since the Roman law and revealed the developmental track of mortgage transactions until now, accompanied by a macro-analysis of the dynamics between mortgage securitization and the then existing economical environment, namely the mortgage has been transformed from a contractual relationship into a tradable commodity on the capital market through the mortgage securitization. In this pat, we will examine the legal framework governming mortgage securitization which facilitates to realize the above-mentioned revolutionary change. The undergone analysis will demonstrate how this legal framework has been changed since the 1970's, and how the change of the legal framework has rotten the foundations for the healthy and sustained development of mortgage securitization and for the self-regulation of the mortgage industry.

Considering the economic substance of mortgage securitization, namely the commoditization of mortgage, the analysis in this part will follow a different approach, differentiated from the traditional ones. First, we will discuss the uncertain determinist relationship between mortgage law and mortgage securitization models in different jurisdictions, namely the legal framework of mortgage laws determine the model of securitization or vice versa[169]? The German or European covered bond and U.S mortgage securitization experiences will offer us some new insightS about the dynamic relationship between mortgage law and financial innovations. Although we are prone to analyze mortgage securitization from the point of view of its economic substance, the advocates and practicers of mortgage securitization prefer to structure it in a more simplistic or formalistic way, namely a true sale of mortgage receivables to a bankrupt-isolate entity. In this formalistic sense, the securitization, in lieu of using the securitized assets as collateral for secured

[169] It is notable that the German mortgage law provides a non-accessory mortgage, which facilitates the free flow of mortgages, parallel with the accessory mortgage, its pfandbrief practice adopts the originate-to-hold model of securitization; while the U.S jurisdiction strictly adheres to the accessoriness principle of mortgage law, which constitutes a great obstacle for the flow of mortgages, its mortgage securitization practice adopts the originate-to-diversify model.

financing, brings advantages to the debtors, including improved liquidity, diversified funding sources, better risk management, accounting-related benefits and lower financing costs. The possibility of lower financing costs[170], relative to secured financing, is the central motive for the securitizing firms. These are the possible reasons why a product with such shaky doctrinal foundations has grown so vastly and became dominant in the marketplace. However, the past financial crisis revealed that it is this formalistic understanding of the mortgage securitization transactions which has rotten the legal foundations for the healthy development of mortgage securitization and the market self-regulation of securitization industry, and this is an important insight with respective to the dynamic correlation between private law and financial innovations, a process which is described as "destructive innovation". This insight will lay down a stable ground for the future analysis of credit risk control from the point of view of private law and market self-regulation in a microeconomic sense.

Although the term "securitization" is very commonly used in the marketplace of U.S, Europe and some other areas of the world, it has not been very well defined by the private law, and been doubted and criticized on a various grounds since its inception. According to some scholars' observation, the legal regime governing securitization has been outpaced by the growth of the securitization market[171] and there are a few cases addressing legal issues relating to securitization[172]. So, in this part, we will carefully scrutinize the legal aspects of securitization from the point of view of private law, including mortgage law, secured transaction law and bankruptcy law. Three important topics will be covered: the accessoriness principle between underlying obligation and mortgage; the true sale of mortgage receivables to special purpose vehicle; and the bankruptcy isolation of SPV.

America and German developed different mechanisms to circumvent the limitation of accessoriness imposed by the traditional mortgage system and it is the distinction of the mortgage laws which determines the two distinguished models of securitization respectively in U.S and Germany. At the same time, it is also possible for us to probe into the institutional

[170] The financing cost of securitization is cheaper than that of secured financing because the originators transfer the securitized assets beyond the reach of the originators' bankruptcy estate, namely the bankruptcy isolation. The great attractiveness of the ABS or specifically MBS is determined by the extent of the isolation of these assets from the credit risk of the originator. We will discuss it later in 3.2.

[171] Lois R. Lupica, Revised article 9, Securitization transactions and the Bankruptcy dynamic, 9 Am. Bankr. Inst. L. Rev. 287, Spring, 2001.

[172] There are two important cases usually discussed by the scholars in this field, *Octagon Gas Sys., Inc. v. Rimmer* (In re Meridian Reserve, Inc) and *United States V. Whiting Pools.*

cause of the current financial crisis, concluding that the institution changes, including secret liens, form dominates over substance and bankruptcy privileges, have rotten the legal foundation for the healthy and sustained development of mortgage securitization and the basic mechanisms for market self-regulation. These "negative" institution changes, succumbing to the funding efficiency and profit-maximization impulse, have conduced to undesirable competition of legislations which was described as "race-to-the-bottom", and thus destroyed the inherent mechanisms for market rehabilitation. This insight tells us that the indiscreet assertion of LLSV that the common law is more efficient than civil law in the capital market is not correct, and we will find that the efficiency of common law in financial innovations is at the expense of the violation of some fundamental market rules which is vital for the survival and robust development of the market.

This chapter will be organized as following: 3.1 will analyze the accessoriness principle of mortgage, which has imposed a transaction cost to mortgage securitization, and the ways to circumvent this legal obstacle in both U.S and Europe; 3.2 will concentrate on the institutionalization of securitization; 3.3 will discuss the way to reduce the transaction costs through the bankrupt isolation; based on the above analysis, 3.4 will analyze how the legal foundations of mortgage securitization have been rotten and consequently how the past financial crisis has occurred.

3.1 The accessoriness of mortgage and mortgage securitization

3.1.1 General review of accessoriness principle

Mortgage is a security interest on immobile property of the debtor or a third party granted by the borrower to lender to secure the repayment of an underlying debt, and the right in security depends on there being an underlying debt. This is the fundamental “accessoriness principle” of security rights which is applicable to various categories of security interests, including guarantee[173], pledge and mortgage. The difference between the guaranty and mortgage: the first derives from overflow of the underlying obligation into the guaranty obligation, while the later emerges from the fact that the mortgage relationship is connected to the proprietary responsibility existing in the underlying obligation.

Different from the other basic principles of mortgage law, such as specialty and indivisibility which are clearly provided in the civil code[174], the accessoriness of mortgage is the fruit of doctrinal elaboration. The accessoriness principle was, in fact, the result of conceptual work of the German pandectists in the 19th century which elaborated a more dogmatic and strict approach with respect to the accessoriness. Observing the civil codes of different countries, we can not find the concept of "accessoriness" and thus can not make a uniform discipline over the relationship between principle obligation and accessory guarantee. The accessoriness principle in different historical periods adopted different patterns and, it is easy to conceptualize this principle in the ancient law using the modern law ideas. And this accessoriness principle can be traced back to the Roman law of both personal security and real security[175].The Roman lawyers took a much more flexible approach and never allowed themselves to be hemmed in by rigid dogmatic accessoriness principle. As Prof. Zimmerman has clearly pointed out, any discussion of the accessory nature of the Roman suretyship stipulations immediately involves the danger of superimposing modern concepts and thinking patterns upon historical legal system[176].

This principle has been well adopted in the German Civil Code, and can be evidenced by various provisions in the code[177]. This approach has also been typically followed by the other continent Europe mortgage law[178]. In Asia, this accessory mortgage has also been introduced into Japan, China (including Taiwan) and South Korea[179]. However, this principle also has

173 Zimmerman generally discussed the accessoriness principle in the personal security, and I will discuss it below. See Reinhard Zimmermann, The Law of Obligations: Roman Foundations of the Civilian Tradition (1990).
174 For example, art. 2809 of the Italian civil law code provides that (1) the mortgage should be registered on specifically indicated property for a certain amount of obligation; (2) the mortgage is indivisible and it exists on all the mortgaged property, on every mortgaged property and all the parts of mortgaged property.
175 Andrew J M Steven, Accessoriness and security over land, working paper of University of Edinburgh, 2009.07.
176 Reinhard Zimmermann, The Law of Obligations: Roman Foundations of the Civilian Tradition (1990), P121.
177 See art.767 and art 1153 of BGB.
178 Art. 2421 of the French Civil code provides that "A hypothec can be created for the security of a existing or future obligation; when it offers security for a future obligation, the amount of the obligation should be determinable". Art 3:227 of the Dutch Civil Code provides that *hypotheek* is a limited real right burdening the immovable property.
179 For example, art. 172 of the "China Real Property Law" provides that "For creating real rights for security, a security contract should be entered into under the present law and the other related laws. The security contract is

some well known exceptions, one of which is the mortgage created to secure future claims. At the same time, unlike the French and Italian civil law, the German and the Switzerland civil law code have established another parallel mortgage, non-accessory mortgage.

First of all, the concept of "accessoriness" indicates the functional connection between mortgage and the secured obligation: the right of mortgagee to expropriate the property and its right of preemption are considered as the instrument to satisfy the credit, and they are not considered as autonomous instruments to collect a certain amount of money in event of assigning or expropriating property. The relationship between mortgage and guaranteed credit represents the functional aspect of the connection[180], or it can be said that the relationship of hypothec is of second grade which has a functional relationship with the guarantied credit, and thus constitutes a dependent or auxiliary one relative to the underlying obligation. This dependence can assume different functions, one of which is to strengthen the effect of the principle obligation. It is thus titled as "accessoriness" in this narrow sense. One important function of the accessoriness is to protect the interests of creditors. If the underlying claim was transferred without the mortgage, the interests of creditors relating to the claim were prejudiced. So it is necessary to transfer mortgage with the assignment of underlying claims. And for this reason, the conception of hypothec is considered as a accessory one: the hypothec is of second grade which assumes the specific and typical function of guaranty for the satisfaction of a determined obligation. So, the mortgage exhibits a structural autonomy and a functional dependence with respect to the secured credit[181].

With respect to the accessory nature of mortgage, it signifies a subordinate or accessory relationship between the mortgage and the secured obligation in most of the law systems: the creation, transfer and extinction of the mortgage are determined by the existence, transfer and extinguishment of the secured credit. Specifically speaking, the accessoriness can be expressed in four aspects in the mortgage transaction. *Firstly,* there must be an underlying obligation to be secured so as to establish the mortgage. Without a debt, there is nothing for a security to secure, and real security presupposes a existing obligation owed by a debtor to a

subordinate to the principle contract. Unless otherwise provided by law, the security contract should be invalid when the principle contract is nullified."

[180] The structural aspect of the connection lies between mortgage and the rights of mortgagee; the essential aspect of the connection lies between mortgage and mortgaged right.

[181] L'ipoteca, Angello Chianale, seconda edizione, P57

creditor. The change of mortgage automatically follows the changes of the underlying credit, even if the later would be rescinded. Before the credit relationship is claimed to be rescinded, the credit exists and operates among the interested parties. The validation of the relationship from which the credit emerges, will extend its effect to the mortgage. One Scottish judge, Sheriff Andrew Bell, has described a security without an underlying debt as "a mere husk, empty of any content".[182] One exception of this is the mortgage for future obligation[183]. *Secondly,* the debt must be specific. The mortgage is usually employed to secure the fulfillment of a debt of certain sum and the need for a certain sum gives specificity to the security so as to limit the mortgagors' liability to the extent of the market value of the mortgaged property. At the same time, the other potential creditors can ascertain the extent to which the mortgaged property is encumbered and consider the viability of a second mortgage loan in favor of the debtor. *Thirdly,* where the debt is assigned, the accessory mortgage is also transferred. The mortgage can not be assigned separately from the secured claim for the reason that the assignor has no reasonable interest in having a mortgage without having the secured claim[184]. *Fourthly,* when the underlying debt extinguishes, the securing mortgage also ends. At the same time, in some cases, the mortgage can be considered independent from the secured credit in certain situations, and enjoys a certain extent of autonomy with respect to the change of the secured credit. For example, the mortgage has its own cause of extinction which does not affect the underlying obligation: the maximum duration of the mortgage is disciplined in an automatic way from the prescription of the underlying obligation. Besides, a third acquirer, who has paid the original secured creditor, can invoke the subrogation getting the position of the original creditor.

Although the changes of mortgage usually follow the steps of the underlying debt because of the accessory nature, there typically exists a time gap between the change of underlying debt and the change of mortgage. The intimation for the debt assignment and registration for the transfer of mortgage are not simultaneous. Consequently, the accessoriness principle poses

182 Andrew J M Steven, Accessoriness and security over land, working paper of University of Edinburgh, 2009.07, P7.

183 For the purpose of this research, I will not do a further study on mortgage for future obligation. Another reason is its broad applicability in the commercial practices, rather the real estate mortgage transactions.

184 Dr. L.P.W. van Vliet, Mortgages on immovables in Dutch law in comparison to the German mortgage and land charge, see http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1147543, visiting date: 2010-9-8.

a dilemma: the accessoriness principle does not mean the immediate transfer of mortgage upon the transfer of underlying debt and it need the further registration in the immobile registry. The answer to this question is a little complex. According to the accessoriness principle, the mortgage was transferred upon the assignment of the underlying debt after intimation. However, under the current mortgage law, the registration of the transfer of mortgage is necessary. So the assignment of underlying debt does not signify the automatic transfer of mortgage. This time gap would give the fraudulent debtor the possibility to conceal the true information about its credit situation and to create a secret lien for their creditors.

More importantly, the registration of mortgage transfer required by the accessoriness rule imposes costs on the mortgage transactions, especially the mortgage securitization involving a great amount of mortgage loans, because the securitization usually needs the transfer of mortgage so as to secure the safety and liquidity of the mortgage-backed securities, and thus constitutes a legal obstacle for the development and proliferation of mortgage securitization. This constitutes the major reason for the creation of MERS (Mortgage Electronic Recording System) in U.S under the originate-to-diversify model of securitization, and the adoption of originate-to-hold model of securitization in Europe, so as to avoid the transfer of mortgages among mortgagees and securitizers; and it also constitutes the main consideration for the creation of non-accessory mortgage in German and Switzerland. In the following discussion, we will find that the two legal systems have given different institutional response to the inconveniences incurred by the accessoriness principle.

Because of the accessoriness principle, the mortgage itself is usually considered to be unalienable without the transfer of the underlying obligation. Generally, *the rights, except those which are closely related with the right holder itself, should be transferred freely*. Followed this logic, mortgage should also be transferable. However, because of the accessoriness of mortgage, it is the claim secured by mortgage which is assigned, rather that the mortgage itself is transferred. This idea is contrary to what has happened in the market: for the loan transaction, it is mortgage which plays a vital role for the primary mortgage lending and mortgage securitization, rather the claim itself. This argument could be confirmed by the following facts: the credit institutions may not advance loans if the borrower does not provide a security for the performance of loan or they provide loans with a very hash terms;

the first lien is more valuable than the second lien and thus the loan with first lien enjoys a lower interest rate; the securitization of mortgage owns a bigger market share than that of consumer and trade credit. As one professor has stated, the accessoriness principle has made the provisions on the transfer of mortgage eclipsed[185]. However， BGB has also made some compromises so as to satisfy the requirements of the practice.

According to some law professors, the mortgage needs not stick to the principle of accessoriness between the underlying obligation and mortgage. It is the law system which could decide whether to establish the accessoriness of mortgage, especially in the situation of the mortgage's transfer[186]. When the principle of accessoriness is executed more rigid, the creditor will get more advantage expropriating the secured property. In contrast, if this principle is executed weakly, there will be more efficiency in the immobile mortgage market. In the following discussion, we will scrutinize the acceptance of accessoriness in the legislation both of the common law system and civil law system and its influence on the securitization markets in these jurisdictions.

3.1.2 The approach of mortgage securitization in common law system

The law scholars in U.S conventionally strictly stick to the accessoriness of the mortgage to its underlying obligation. But the creation and the operation of the Mortgage Electronic Record System (MERS), for the purpose of lowering cost and fostering efficiency, circumvents this fundamental principle. To a great extent, MERS makes it possible to cancel the transfer of mortgage in securitization practices so as to avoid the registration costs for the mortgage transfer. In this part, we will discuss the accessoriness principle in the mortgage transaction practice, and see how this principle is circumvented for the reason of cost-reduction and efficiency and which kind of problem has been created for this practical innovation in the mortgage securitization.

185 Paul, Real property law of Germany (Chinese version), Vol 2, Law press, 2006, P88.

186 See Angello Chianale, L'ipoteca, seconda edizione, P56; see also Pietro Boero, Le ipoteche, 2ed edizione, P52

3.1.2.1. The accessoriness principle in common law system

In the common law system, the “accessoriness” is typically discussed in the sources on personal security and less visible in the treatments of real property.[187] As professor Sparkes has stated in his work, “Discussion of mortgages in English law makes little reference to accessoriness as a principle[188]”. In fact, the accessoriness principle was reflected in different forms, implicit or explicit, and sometimes it is hidden in various provisions of the mortgage law in common law system. For example, with respect to the origination of mortgage, the accessoriness was expressed implicitly: under section 203 (a) of the Uniform Land Security Interest Act, a security interest attaches to real estate when value has been given, and the “value” indicates an underlying obligation. However the “subsistence of an obligation” is just one of the pre-requisites for the attachment of security interests. It means that the secured party (lender) must have given value to the borrower before the security interest (mortgage) attaches to the real estate as a lien. It has been held that there is no mortgage if the note secured thereby is invalid[189]. Mortgage can be granted to give security for the repayment of an underlying debt, even future obligation.

Besides, a more important rule regarding to transfer of mortgage expresses the accessoriness principle in a more direct way: (a) A transfer of an obligation secured by a mortgage also transfers the mortgage unless the parties to the transfer agree otherwise. This provision is provided for the mortgage transfer occurred in the secondary mortgage market. The essential premise of this section is that it is nearly always sensible to keep the mortgage and the right of enforcement of the obligation it secures in the hands of the same person. This is so because separating the obligation from the mortgage results in a practical loss of efficacy of the mortgage. This result is sometimes justified on the ground that "all the authorities agree that the debt is the principal thing and the mortgage an accessory," as the United States Supreme Court put it in 1872 in Carpenter v. Longan, 83 U.S. (16 Wall.) 271, 21 L.Ed. 313 (1872).[190] The mortgage becomes useless in the hands of one who does not also hold the

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[187] Andrew J M Steven, Accessoriness and security over land, working paper of University of Edinburgh, 2009.07.
[188] Peter Sparkes, European land law, 2007, P399.
[189] See Powell on Real Property, § 37.12.
[190] See Official comment of § 5.4, Restatement of the Law, Third, Property (Mortgages).

obligation because only the holder of the obligation can foreclose; and when a separation of the two has occurred, some courts have imposed a constructive trust on the mortgage in favor of the holder of the obligation in order to make it available for foreclosure. With respect to the relationship between underlying obligation and mortgage, Professor Chester Smith of the University of Arizona College of Law has made the following analogy: The note is the cow and the mortgage the tail. The cow can survive without a tail, but the tail cannot survive without the cow[191].

There is an exception for the above principle, the mortgage for the future obligation. The mortgage is valid in providing a security for a projected future transaction and thus it can been employed to secure the payment which is to become due in the future, such as the alimony payments and progress payments for a building contract. The amount of the future obligation need not to be precisely indicated, and it is sufficient that the value of obligation is ascertainable.

3.1.2.2 The violation of accessoriness in the U.S securitization -- MERS

3.1.2.2.1 The origin and development of MERS

In the current research on the cause and effect of the subprime crisis, the scholars have explored the role of rating agencies, mortgage originators, mortgage brokers, and loan servicers, while little academic attention has been paid to one particular company, the *Mortgage Electronic Registration System*, inc. (hereinafter referred to as MERS), which has played an important role both in the mortgage loan transactions and in the circumvention of accessoriness of the mortgage law. This company is a corporation registered in Delaware and headquartered in the Virginia suburbs of Washington, D.C. It has two functions in the mortgage transactions: one is traditional and conservative while the other is innovative and aggressive. First, MERS operates a database designed to track servicing and ownership rights [192]of mortgage loan in U.S[193]. Originators and players in the secondary mortgage market

[191] See Official comment of § 5.4, Restatement of the Law, Third, Property (Mortgages).
[192] The public recording of the conveyances and mortgages in U.S has a long history and social supports. Even early in the 17th century, Americans has begun its public recording practices for the conveyances and mortgages,

could access and use the records of MERS paying membership dues and transaction fees[194]. Second, MERS usually acts as nominee in the county land records for the lender and servicer, a more aggressive legal function. As stated on its website, any loan registered on the MERS is inoculated against future assignments because MERS remains the mortgagee no matter how many times servicing is traded or even after the mortgage loans are transferred into a pool of loans that are ultimately sold to investors of mortgage-backed securities. MERS as original mortgagee (MOM) is approved by Fannie Mae, Freddie Mac, Ginnie Mae, FHA and VA, California and Utah Housing Finance Agencies, as well as all of the major Wall Street rating agencies[195]. So the mortgage is recorded under MERS's name, although it does not originate, fund or service any mortgage loans. For this reason, it is reasonable to predict that the public land records no longer reveal who is the true owner of a mortgage on the property in question, once a loan is assigned to MERS.

Rick Amatucci, a Fannie Mae vice president and the agency's liaison with MERS, recalls that the idea grew out of an Interagency Task Force in October 1993, which brought the secondary marketing agencies and the Mortgage Bankers Association of America (MBA) together "to identify ways to bring efficiencies to the industry[196] and they thought that an electronic book entry system of tracking mortgage loans would be better for the mortgage lending industry than the legal system county recording offices[197]. In 1995, MERS was incorporated in Delaware as a non-stock corporation owned by mortgage banking companies. MERS was designed to:

(a) Lower costs for servicers, which offers benefits to themselves as well as their borrowers;

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such as Massachustts and Connecticut. And in 1717, Pennsylvania adopted the first recording act which remains in force today. Besides, the UCC9 also creates a similar recording system for all personal property. However, it becomes increasing difficult for the potential lenders to search the legal status in the real property recording system. Now the mortgage originators usually buy title insurance policy from insurance companies which specialize in searching title records and maintain computer-based "plant" copies of public real property records. See Christopher L. Peterson, Foreclosure, subprime mortgage lending and the mortgage electronic registration system, University of Cincinnati Law Review, Vol. 78, No. 4, 2010.

193 Howard Schneider, MERS aids electronic mortgage program, Mortgage Banking, January 1, 1997. see http://findarticles.com/p/articles/mi_hb5246/is_n4_v57/ai_n28683978/

194 Christopher L. Peterson, Foreclosure, subprime mortgage lending and the mortgage electronic registration system, University of Cincinnati Law Review, Vol. 78, No. 4, 2010.

195 See http://www.mersinc.org/about/index.aspx.

196 Howard Schneider, MERS aids electronic mortgage program, Mortgage Banking, January 1, 1997. see http://findarticles.com/p/articles/mi_hb5246/is_n4_v57/ai_n28683978/.

197 Phyllis K.Slesinger & Daniel Mclaughlin, Mortgage Electronic Registration System, 31 ID .L.Rev. 805, 810-811,1995.

(b) Provide immediate access to information on mortgage ownership rights to both consumers and the industry;

(c) Lessen the potential for fraud by giving lenders the ability to track individual mortgages throughout their life span.

In 1997, the firm started generating an 18-digit mortgage identification number (MIN) for every origination. A MIN will stay with a loan throughout its life - even as ownership of the loan and its servicing changes hands.

Today, MERS has legally involved in the origination of approximately 60% of all mortgage loans in the U.S[198], although it is still a company of sever years' history. In 2002, MERS had recorded its name, instead of the actual assignee or mortgagee, in ten million residential home mortgages. One year later, the total number increased up to 20 million[199], and by the May 2007, MERS's has been recorded as the mortgagee or assignee on 60 million residential mortgages.

3.1.2.2.2 MERS's role in the securitization

At first, MERS only attracted the participation of Fannie Mae and Freddie Mac, and since 1999 the private label mortgage securitizers began using MERS. MERS is typically involved in the securitization practices in two ways, MOM and non-MOM. As shown above, MOM signifies that MERS is recorded in the county recording offices as the Original Mortgagee, while non-MOM signifies that the mortgage at the start was recorded in the actual lender's name and later was assigned to MERS which was listed as the mortgagee. In a chronological order, we first analyze the non-MOM practice and later the MOM practice.

Under the non-MOM recording strategy, the originator issues a traditional mortgage loan recording itself as the mortgagee on the security document and as the payee on the promissory note. For the purpose of securitization, the loan should be assigned to a seller and ultimately to a SPV (usually a trust) for pooling and repackaging. In order to lower the cost for the

[198] Kate Berry, Foreclosures Turn Up Heat on MERS, American Banker July 10, 2007.

[199] Scott Lowell Podvin, MERS may not have standing to initiate foreclosure proceedings or lift automatic stays in Bankruptcy, see http://goarticles.com/article/MERS-May-Not-Have-Standing-to-Initiate-Foreclosure-Proceedings-or-Lift-Automatic-Stays-in-Bankruptcy/4580139/ . (This author is a attorney in Florid specialized in offering protection for homeowners from mortgage foreclosure actions. http://homesteadlegal.com/attorneys.php)

assignment, the originator pays MERS a fee to record it as the fictional assignee in the county recoding offices and thus MERS becomes a fictional "mortgagee" even though it does not actually own the mortgage.

With respect to the MON recording strategy, MERS is recorded as the original mortgagee so as to do away with the first assignment of mortgage to MERS. The loans were made by the originator to the borrowers while MERS was recorded as mortgagee rather the actual lenders. So the registration of originators as mortgagee in the county recording offices is eliminated, and also the further assignment of mortgage to seller and SPV. So the recording fees paid by the originator to the county recording offices are saved and cost for securitization is further lowered.

With respect to MERS's role of cost-reduction in the mortgage securitization, it mainly refers to the second function mentioned above, namely its role acting as a fictional "mortgagee" in lieu of the true lenders. It can be specified as following: The registration fees for the assignment of mortgages are charged by the county recording offices to cover the cost of maintaining the real property records and the cost for the other public expenditures including education, legal aids and so on. These fees typically range from ＄25 to ＄50, while the registration fee in MERS only costs ＄11.95 and the Intracompany Transfer Fee only needs ＄2.5[200]. As shown on the website of MERS, if MERS is nominated as the Original Mortgagee (MOM), each loan will save ＄30[201] for the reason that the possibility of the future assignment of the mortgage has been eliminated. For the Non-MOM Loans[202], the additional assignment of mortgage will also be eliminated after its assignment of MERS, unless the servicing rights are sold to a non-MERS member. In the traditional mortgage securitization, the originators usually are indicted in the promissory note and mortgage document, signed by the homeowner or borrowers, as the mortgagee; later the originator assigns the mortgage loans to a seller which is usually a subsidiary of an investment bank[203]; later the mortgage loans are assigned to a special purpose vehicle which transfers the right to receive the income stream to various investors. Regarding to the assignment of mortgage to

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200 See http://www.mersinc.org/MersProducts/pricing.aspx?mpid=1 visiting date 2011-5-6.

201 See http://www.mersinc.org/why_mers/mom.aspx, visiting date 2011-5-6.

202 It signifies the loan which has already been closed in the lender's name and later is transferred to MERS.

203 Christopher L. Peterson, Foreclosure, subprime mortgage lending and the mortgage electronic registration system, University of Cincinnati Law Review, Vol. 78, No. 4, 2010.

the seller and the SPV, it is obligatory to record the assignments in order to keep their mortgage priority against subsequent competitors, otherwise they will risk losing priority vis-à-vis the other creditors. After the creation of MERS, these two assignments of mortgages can be eliminated and thus the corresponding fees are saved, maximum up to ＄100 per loan. Consequently the securitization industry saves more than one billion dollars for the elimination of additional assignments of mortgages. In one word, by paying MERS a fee, the securitization participants lower their operating costs.

Besides MERS's fictional nominee role, it also become involved in consumer finance litigation against the defaulted mortgagor bringing foreclosure proceedings in its own name for the benefit of the true owners. Because MERS is the nominal mortgagee in the county recording offices, it is the appropriate plaintiff to bring the foreclosure action in the courts. At the same time, MERS has allowed actual mortgagees and loan assignees or their servicers to bring foreclosure actions in MERS's name in order to move foreclosures along as quickly as possible[204].

Although MERS has greatly increased the efficiency in the securitization practices, it also has been subject to criticism and there occur many legal controversies surrounding MERS. One central issue is that, MERS is not the payee on the promissory note which represents the underlying debt although it is listed as the fictional mortgagee in the county record offices. As we will analyze the distinction between true sale and transfer for security below, the American legal tradition historically looks the economic realities of a underlying transaction so as to determine its essence in law. According to this realty principle, we can conclude that MERS is not the actual mortgagee with respect to any loan registered on its database. This is because that MERS does not actually originate any loans and are neither entitled to receive the borrowers' monthly payments nor the proceeds from foreclosure. Following this logic, it is also questionable that MERS brings foreclosure actions against mortgagors because MERS lacks justified standing to bring the foreclosure actions. So we conclude that MERS helps create the secret lien problem which conceals the real identity of creditors and the true debt exposures of debtors. The information disclosure of public registry is greatly weakened.

[204] Christopher L. Peterson, Foreclosure, subprime mortgage lending and the mortgage electronic registration system, University of Cincinnati Law Review, Vol. 78, No. 4, 2010.

Because the mortgage securitization participants are usually the great investment banks, it allows them to operate with a high leverage as the bankrupt Lehman Brothers in 2007[205].

After the above discussion about MERS's role in securitization accompanied by some disputes, it is no doubt that MERS has successfully circumvented the accessoriness principle of American mortgage law, made legally possible to re-assign underlying mortgages without cumbersome registration in county courts as customary required, and thus saved billions of dollars for the securitization industry.

3.1.3 The approach of mortgage securitization in civil law system

The civil law countries, especially those in Europe, developed a model of securitization distinct from that of U.S, namely the covered bond which employs different ways to circumvent the accessoriness rule imposed by the mortgage law. In this part, we will concentrate on the German model of securitization, characterized by the originate-to-hold model. Contrast with the contractual way of circumvention of accessoriness through the establishment of MERS in U.S, the German securitization legislation and practices own more statutory characteristics, as the Mortgage Bank Act before 2005 and the comprehensive Pfandbriefe Act since 2005 providing in detail the covered bonds' construction and operation. This statutory securitization shares many differences with the U.S contractual structure securitization in many ways, which have effects on the credit control of securitization as illustrated in part 4.

3.1.3.1 The accessoriness principle in German and its circumvention

In Germany. the accessory relationship between mortgage and its underlying obligation is strictly followed, namely the creation, existence, transfer and termination are determined by the underlying obligation. For the creation of mortgage, BGB has several provisions providing detailed the requirements to the underlying claim for create a valid mortgage by

[205] As confirmed by the financial crisis inquiry commission, the leverage ratio of Lehman Brothers has reached up to 80 times because it has successfully concealed its obligation.

encumbering a plot of land. Under section 1113 and section 1115, the underlying claim should be monetary obligation no matter what is the legal basis for this claim[206], even if this claim is future or conditional[207], and the claim should be certain. Regarding to the certainty of the underlying claim, the creditor, the debtor and the amount of money of the claim should be certain. So the secured creditor and mortgagee should be identical, namely who is granted the mortgage depends on who is the creditor, and these two can not be separated under section 1153. At the same time, the creditor, the amount of the claim, interest rate and the other supplementary payment should be stated in the land register and this statement constitutes a description of the claim. In BGB's definition of mortgage, it provides that the land may be encumbered in such a manner that *a certain sum of money* is to *be paid out of the land* to the person in whose favor the encumbrance is created for the satisfaction of a claim on the land to which he is entitled (mortgage). Here, the wording "a certain sum of money" also indicates the accessory relationship between mortgage and the underlying obligation. So we observe that the accessoriness principle is strictly applied. With the assignment of claim, mortgage is also transferred to the new creditor[208]. Under section 1153, the transfer of claim and mortgage should be implemented at the same time and they can not be separated. The assignees of the transferred claims should ascertain the creation and existence of the claim when they become the new holders of the mortgage which secure the performance of a specific claim.

For the reason of the rigidity of the accessoriness principle advocated by the German civil code, it has laid down a great obstacle for the flow of mortgage in the market and thus a great amount of immobile wealth was illiquid which causes efficiency losses. In order to loosen the rigidity in German, the civil code provides has made several attempts to circumvent this rigid accessoriness principle.

First, the land charge is provided by the civil code and has always been employed by the real estate transaction participants. Parellel with the mortgage, the land charge is another important category instrument for the real estate financing, which is widely used in Germany.

[206] In this sense, any claim that can be expressed by a certain amount of money can be secured by mortgage.
[207] See section 1113, (2) The mortgage may also be granted for a future or a conditional claim.
[208] Section 1154, Assignment of the claim: (1) For the assignment of the claim, it is necessary to submit the declaration of assignment in writing and to hand over the mortgage certificate; the provision of section 1117 applies. The previous creditor shall, upon demand by the new creditor, have the declaration of assignment notarially certified at his expense.

The land charge is characterized by its abstractness and independence relative to the underlying obligation, although the performance of this obligation is usually secured by the land charge. The creation and existence of land charge do not depend upon the existence of the underlying obligation, and its transfer is independent from the assignment of the underlying obligation and it can be transferred without the underlying obligation. So the principle of accessoriness is not applicable to land charge and this was confirmed by Art.1192 of BGB. In theory, this is called the "abstractness of land charge". The rational for land charge is that it could be transferred very easily in the marketplace, so it owns a high liquidity and market value. The land charge can be created for the benefit of the proprietary; and it can be reassigned to successive creditors to secure their obligations. Because the land charge and the obligation whose performance it secures can be transferred separately, there exist potential risks for the land charger-debtor. For example, one debtor D grants a land charge to its creditor C securing the performance of the claim. Later, C assigns the claim to A, while C transfers the land charge to B. with the complement of registration in land registry, B becomes entitled as the owner of land charge. And A becomes the owner of the claim. So the debtor is facing a potential risk to perform the claim for two times, namely the enforcement of land charge by B and enforcement of claim by A. This risk could only be mitigated by security agreement among parties. However, this risk can be eliminated or mitigated by the prudential debtors.

Although mortgage and land charge are constructed differently in law, they are identified as having the same economic function and aims which have been confirmed by the statutory rules. For this reason, art. 1192 of BGB provides that, "The provisions on mortgage may apply with the necessary modifications to the land charge, unless a contrary intention may be inferred that the land charge requires the existence of a claim."

Second, in order to enhance the liquidity of mortgage, BGB developed one important rule to limit the application of accessoriness principle. Section 1138 [209]provides that the presumption of the accuracy of the content of land registry also applies to mortgage and the underlying claim. It signifies that the underlying claim would be presumed to exist according

[209] Section 1138 Presumption of the accuracy of the contents of the Land Register. The provisions of sections 891 to 899 apply also to the mortgage, taking into consideration the claim and the defences available to the owner in accordance with section 1137.

to the registration in land registry. So the participants in mortgage transactions will not necessarily to ascertain the existence of the claim. This shows that the acquisition of mortgage is vital for participants of mortgage transaction, rather the acquisition of underlying claim. This rule, to a great extent, satisfies the requirements of mortgage transaction practices and strengthens the liquidity of mortgage. At the same time, this presumption of the existence of underlying claim could be excluded by the participants. At the same time, this presumption for the existence of mortgage can also be excluded. For example, section 1184 provides that "A mortgage may be created in such a manner that the creditors' right under the mortgage is determined solely by the claim and the creditor may not invoke the registration for the purpose of proving the claim (debt-securing mortgage)." And this debt-securing mortgage strictly adheres to accessoriness principle and excludes the application of presumption of claim. It can be transferred only if the secured claim exists. Otherwise, even if the registration in land register can not be cited for proving the existence of claim.

Another attempt to enhance the liquidity of mortgage is the creation of the certificated mortgage (Briefhypothek) by BGB, except the registered mortgage in land registry. The most important advantage of certificated mortgage is its high liquidity, for the reason that it needs not to be registered in land registry for its transfer. It requires only the agreement of parties, registration and the delivery of certificate[210]. Although this certificate could be replaced by Registration in the Land Register, it is preferred by the land loan practices. According to the wording of section 1116, the certificate mortgage is the common form and is more popular, while the registered mortgage in land book constitutes an exception. The issuance of certificate mortgage can be excluded only in the situation where the creditor and owner of land have made a specific agreement of exclusion and have registered such "exclusion" in land register[211]. The certificated mortgage facilitates the transfer of mortgage in market. It enables the mortgagor to control the loan transaction so as to insure that the reception of loan and delivery of certificate occur at the same time. However, it also causes some problems,

[210] Section 1154 (1) For the assignment of the claim, it is necessary to submit the declaration of assignment in writing and to hand over the mortgage certificate; the provision of section 1117 applies. The previous creditor shall, upon demand by the new creditor, have the declaration of assignment notarially certified at his expense.

[211] Section 1116 (2) The issuance of the certificate may be excluded. This exclusion may also take place subsequently. The agreement of the creditor and of the owner as well as registration in the Land Register are required for the exclusion; the provisions of section 873 (2) and of sections 876 and 878 apply with the necessary modifications.

especially to the register record in land registry whose contents will not be exclusively relied upon by assignee. So we will find that the achievement of high liquidity of mortgage is at the expense of less reliability of land register. On the land book, we could just find the existence of a encumbrance and the amount of the secured claim, but we could not know who is the true right holder of mortgage. It may be the initial mortgagee registered in the land book, and it also could another one to whom is subsequently assigned the mortgage. Section 1140[212]and section 1155[213] give a detailed ruling about mortgage certificate and the inaccuracy of land register. The above discussions with respect to mortgage are also applicable to land charge.

3.1.3.2 The way for the circumvention of accessoriness in civil law system

For the securitization in the civil law countries, the covered bond was developed, such as the German term Pfandbriefe. The key difference between covered bonds and MBS is that banks which make loans and package them into covered bonds will keep those loans on their books. This is the so-called in-balance securitization or originate-to-hold securitization. Pfandbriefe is quite popular in Germany, and is utilized as a financial instrument with great success. In its history of more than 200 years, there was not even a single case of a defaulted Pfandbrief, asserted by VDP, the Germany mortgage association[214]. For this reason and due to the security provided by the cover pool, covered bonds were one of the first markets to recover following the global financial crisis of late 2008.

With respect to the originate-to-hold securitization, the old Mortgage Bank Act and the current Pfrandbriefe Act are both characterized by the cover pool which is clearly identified by law and composed by eligible mortgage loans secured by residential or commercial property, mortgage loans secured by ships and aircraft, and public obligations. Most cover pools also include cash deposits and loans against credit institutions. These "ring-fenced" pool

[212] Section 1140, Mortgage certificate and inaccuracy of the Land Register: “To the extent that the inaccuracy of the Land Register appears from the mortgage certificate or from a note on the certificate, invoking the provisions of sections 892 and 893 is excluded. An objection to the accuracy of the Land Register, which appears from the certificate or from a note on the certificate, is equivalent to an objection entered in the Land Register.”

[213] Section 1155, Presumption of the accuracy of certified declarations of assignment: “If the right of the holder of the mortgage certificate as creditor ensues from a connected series of notarially certified declarations of assignment leading back to a registered creditor, the provisions of sections 891 to 899 apply in the same manner as if the holder of the certificate were registered as creditor in the Land Register. A notarially certified declaration of assignment is equivalent to a judicial transfer order and a notarially certified acknowledgement of an assignment of the claim effected by virtue of the law.

[214] See http://www.pfandbrief.de/cms/_internet.nsf/tindex/en.htm.

of assets dedicated to secure the covered bonds, namely these assets in the cover pool will be used to repay the covered bondholders before they are made available for the benefit of the credit institution's unsecured creditors in the event of the insolvency of the credit institution.

The methods used to "ring-fence" the cover pool vary across jurisdictions[215]. In most jurisdictions, the special law either excludes the cover pool from the insolvency estate of the credit institution, or provides covered bondholders with a preferred claim within the insolvency estate itself. For example, section 5. (1a) of the German Pfrandbriefe Act provides that "Insofar as recorded cover assets are only partially to serve as cover for the Pfandbriefe of the Pfandbrief bank, the cover register must contain precise details regarding the scope of the part to serve as cover and its rank in relation to the part not serving as cover; in case of doubt, the part to serve as cover shall have priority." Under this provision, the cover pool will be specified by the cover register. At the same time, the recorded assets are managed in their entirety or in part by the Pfandbrief banks as a fiduciary, although these assets are not transferred to them.

The on-balance securitization needs no transfer of mortgage out of the balance sheet of the originator. In order to safeguard the safety of covered bonds and the priority of holders' rights, the cover assets used to cover the Pfandbriefe will be recorded by the Pfandbrief bank in the register (cover register), as provided by section 5 (1) of the Pfandbriefe Act. This recording is aimed to perfect the rights over the cover pool rather than the individual mortgages in the cover pool. So the securitization of a pool of mortgage loans does not incur the cost for the recording of the transfer of the covered mortgages.The creation of this statutory cover pool and its recording in the cover register together entail the circumvention of accessoriness principle in the covered bonds transactions.

So we find that the design of mortgage law has important impact on the approach of mortgage securitization, and the securitization industry in different countries has created distinct methods to circumvent the legal obstacles imposed by the accessoriness principle.

[215] In some jurisdictions, the cover pool is preserved from the insolvency estate of the credit institution by being transferred to an SPE, which guarantees the credit institution's obligations under the covered bond. Finally, some structures use the implementation of European Collateral Directive in their jurisdiction to pledge the cover pool assets. See ECBC ESSENTIAL FEATURES OF COVERED BONDS,

However, these innovations have produced different consequences: MERS results in secret lien, while the Pfandbrief keepts the legal cerntainty and transparency.

3.2 The doctrine of true sale

In 3.1 we have analyzed the mortgage accessoriness principle and its effect on the securitization practices. From now on, we will focus on the securitization approach commonly adopted in U.S, the originate-to-diversify model through which the mortgage loans are transferred from the originators to the SPV. This transfer is treated as a "true sale" in the secured transaction law, as we will see the provisions of the UCC-9. For the purpose of bankruptcy remoteness, the principle of true sale is just applied in the American mortgage securitization practices, while the European covered bonds follow another way to implement the ring-fence of covered assets so as to protect the safety of covered bonds' investors. So the discussion of true sale will mainly concentrate on the U.S securitization practices, and I will articulate the evolution about the doctrinal foundations of securitization from the perspective of secured transaction law and the bankruptcy law.

On its appearance, the securitization is an account receivable (a right to payment owed to the originator) financing through which the originator sells its account receivables to a third party (Special purpose vehicle or special purpose vehicle) issuing securities to the investors in the capital market. Usually, the SPV is a wholly-owned subsidiary formed by the originator and it is formed only for the purpose of the securitization transaction and its operations are limited to those relating to the transaction. Once the SPV is created, the originator conveys the assets to the SPV for securitization. This conveyance, which is later referred as "true sale", is designed to be insulated from any future bankruptcy of the originator. The SPV raised funds by issuing debt instruments (in the context of this dissertation, the mortgage-backed securities, MBS) to the investors in the capital market, and immediately passing the proceeds to the originator. So we can conclude that the bankruptcy isolation is the final purpose, while the true sale is the legal mechanism through which the former is realized.

The criticism to securitization mainly focuses on its most important underpinning: true sale.

Professors David Carlson[216], Lois Lupica[217], and Kenneth C. Kettering[218] criticized its legal robustness. David Carlson asserted flatly that securitization does not achieve its goal of isolating the securitized assets from the bankruptcy estate of the Originator[219], while Lois Lupica focused primarily on the normative question of whether securitization is efficient in the economic sense of increasing the aggregate net welfare of all individuals in society, asserting that it probably is not efficient. In addition, she briefly sketched weaknesses in the doctrinal foundations of securitization, suggesting (without reaching any firm conclusions) that such transactions may be susceptible to invalidation in the event of the Originator's bankruptcy on various grounds.

Based on their research, I will focus on the relationship between UCC-9 and the proliferation of mortgage securitization, finding that the motive and achievement of the 1998 revision to UCC-9 is to institutionalize the securitization in legislation so as to mitigate and eliminate the legal uncertainty.

3.2.1 The origin and history of Article 9 of United Commercial Code

Before the enactment of Article 9, various security instruments were employed by the lenders to secure the repayment of their loans, including pledge, chattel mortgage and a conditional sale. And they were governed both by the common law and state statutes. Moreover, the statutes varied from state to state. Different consequences derived from different characterization of a financing transaction as one or another. This caused the uncertainty and high risk to the underlying transaction with respect to the creation of security, the priority and the remedies available in the event of default.

As the expansion of commercial economy, the substantive differences in the legal provisions governing the credit transactions differentiated by type of collateral began to

[216] David Gray Carlson, The Rotten Foundations of Securitization, 39 Wm. & Mary L. Rev. 1055 (1998)
[217] Lois R. Lupica, Circumvention of the Bankruptcy Process: The Statutory Institutionalization of Securitization, 33 Conn. L. Rev. 199, Fall 2000;
[218] Kenneth C. Kettering, Securitization and its discontents: The dynamics of financial product development, 29 Cardozo L.Rev.1553, 2008
[219] David Gray Carlson, The Rotten Foundations of Securitization, 39 Wm. & Mary L. Rev. 1055 (1998)

blur[220], and many states failed to distinguish between conditional sales and chattel mortgage. So the introduction of a uniform law governing all security devices was necessary. The development of uniform secured transaction law helps remove the impediments to further proliferation of collateralized transaction. The Article 9 was aimed to facilitate the secured credit transactions, making it easier and less costly to take and perfect security interests in various personal properties. The secured creditors were granted supremacy over the debtor's assets through the use of floating lien and after-acquired property provision.

The aim of Article 9 is to provide a simple and unified structure, within which the immense variety of present-day secured financing transactions can go forward with less cost and with greater certainty. However, when Article 9 is originally drafted, it did not take into consideration of the need of the securitization market.

3.2.2 Article 9 of UCC and the proliferation of securitization

The growth of securitization has a close relationship with the revision of secured transaction law and the amendment of bankruptcy code.

Although securitization was first introduced in market in the form of mortgage-backed securities in the 1970's, this financial innovation was also applied to the other non-real estate related receivables in the 1980's. However, the realization of this expansion needs the support from the governing laws. Securitization is, in essence, involves a sale of accounts which own a stable underlying cash flow as the source of repayment to the investors. The revised Article 9 makes some modifications designed to facilitate securitization transaction so as to satisfy the need of the MBS or ABS market which has developed with astonishing speed. These modifications are to address the legal uncertainties and exposure to risks facing the securitization participants. The revised Article 9 contemplates to foster the growth of securitization through resolving two fundamental issues relevant to securitization process: (1) the re-characterization of the asset transfer; and (2) how to perfect the transferee's interests in the transferred assets so as to reduce the risk and uncertainty of the transaction. For the

[220] Lois R. Lupica, Circumvention of the Bankruptcy Process: The Statutory Institutionalization of Securitization, 33 Conn. L. Rev. 199, Fall, 2000.

characterization of underlying transaction, Article 9 governs both the outright sale of accounts and chattel papers and the transfer of account for security. With respect to the second question, Article 9 requires the transferee of accounts to publicly file a financing statement as the accounts transfer as security, in accordance with Article 9's procedure, in order to perfect their interests in such property. By doing so, the transfer of accounts as the most important step for securitization is exposed no legal risk and thus the cost to the transaction is reduced greatly.

On April 15, 1998, Article 9 was revised and proposed for enactment by the National Conference of Commissioners of Uniform State Laws and the American Law Institute because of the growth and continued innovation of credit markets. And this revision further promotes the proliferation of securitization hereinafter. The revised Article 9 introduces new types of assets as collateral under its governance facilitating financial innovation. Moreover, it addresses the legal uncertainty regarding to the important relationship among creditors and purchasers of collateral, and thus reduces the transaction costs. As a scholar has maintained, Article 9 is believed "having the effect of institutionalizing securitization transactions" and thus constructs a safe harbor for parties seeking to securitize assets that fall under the revised definition of "accounts" and "chattel paper" [221]. In the following, we will discuss the changes made by Article 9 for facilitating the securitization transactions.

3.2.2.1 The expansion of the definition of "account receivable"

In order to facilitate the development of securitization, the definition of "account receivables" is also expanded broadly after every revision to UCC 9 so as to bring more securitized assets under the governance of UCC 9. These gradual and continued revisions are aimed to address the most vexing concerns of participants in the securitization industry: the ambiguity in asset characterization and the consequent applicable law to the transaction. The parties to the securitization transaction must accurately characterize the assets to be securitized, and then determine the law applicable to the asset transfer. If the transferred assets fall into the definition of "accounts" governed by the UCC 9, the transaction is safe and has no legal risk.

[221] Lois R. Lupica, Circumvention of the Bankruptcy Process: The Statutory Institutionalization of Securitization, 33 Conn. L. Rev. 199, Fall 2000.

Otherwise, the participants have to take other necessary steps to perfect the transferee's interest under the non-uniform, non-article 9 laws. If these steps are not correctly or not taken, the transferee's interest will be threatened by the competing creditors of the originator, in the event of the originator's bankruptcy.

In response to this uncertainty, the revised Article 9 has bought the "instruments", "general intangibles" and other non-Article 9 governed property into the definition of "account". In the following, we will exhibit the evolution of Article 9 with respect to the expansion of the definition of "account" and also its relationship with the several related concepts, such as general intangibles.

After the revision in 1992, §9-106 provided that "Account" means any right to payment for *goods* sold or leased or for *services* rendered which is not evidenced by an instrument or chattel paper, whether or not it has been earned by performance. While "General intangibles" means *any personal property* (including things in action) other than goods, accounts, chattel paper, documents, instruments, and money[222]. In conjunction with§9-102 of the 1992 version[223], the 1992 version of Article 9 is only applicable to the sale of accounts and chattel paper, rather than general intangibles.

After the revision in 1999, the definition of account is broadly expanded. According to current §9-102 (a) (2),

> "Account", except as used in "account for", means a right to payment of a monetary obligation, whether or not earned by performance, (i) for *property* that has been or is to be sold, leased, licensed, assigned, or otherwise disposed of, (ii) for *services* rendered or to be rendered, (iii) for a *policy of insurance* issued or to be issued, (iv) for a *secondary obligation* incurred or to be incurred, (v) for energy provided or to be provided, (vi) for the *use or hire of a vessel* under a charter or other contract, (vii) arising out of the use of a credit or charge card or information contained on or for use with the card, or (viii) as *winnings* in a lottery or other game of chance operated

[222] See http://www.law.cornell.edu/ucc/9/9-106.html

[223] § 9-102 provided that (1) Except as otherwise provided in Section 9-104 on excluded transactions, this Article applies

•(a) to any transaction (regardless of its form) which is intended to create a security interest in personal property or fixtures including goods, documents, instruments, general intangibles, chattel paper or accounts; and also

•(b) to any sale of accounts or chattel paper.

> or sponsored by a State, governmental unit of a State, or person licensed or authorized to operate the game by a State or governmental unit of a State. The term includes *health-care-insurance receivables*.

It is notable that the term "*goods*" is substituted by that of "*property*". As the Official Comment states, this substitution signifies that it (account) is no longer limited to rights to payment relating to goods or services, and various rights to payment that were classified as general intangibles under former Article 9 are currently under the definition of accounts under the revised Article 9[224]. So the right to payment deriving from the mortgage loan in the securitization transaction is also a kind of "accounts" subject to Article 9. This new broader definition of "account" will fundamentally affect the market for securitization by eliminating the need for securitization participants, in most instances, to distinguish between accounts, general intangibles and other Article 9 and non-Article assets.[225] So the account transferee will be sure that its interests in the transferred accounts will be free from the strong arm powers of the originator's trustee in bankruptcy.

At the same time, the current revised Article 9 also expanded to the sale of the commonly securitized assets, payment intangibles, and promissory notes[226]. "Payment intangible" is a newly identified category of collateral and means a general intangible under which the account debtor's principal obligation is a monetary obligation[227]. It can be referred from this definition that "Payment intangible" is a subset of the definition of "general intangible. As Rev. U.C.C. § 9-102 cmt 5d states, the term "payment intangible, includes only those general intangibles under which the account debtor's principal obligation is a monetary obligation. At the same time, the term "General intangible" is the *residual category of personal property*, including things in action, that is not included in the other defined types of collateral. According to §9-102 (a) (42), "General intangible" means any personal property, including things in action, other than accounts, chattel paper, commercial tort claims, deposit accounts, documents, goods, instruments, investment property, letter-of-credit rights, letters of credit,

[224] See Rev. U.C.C. § 9-102 cmt 5a.
[225] Lois R. Lupica, Revised Article 9, Securitization Transactions and the Bankruptcy Dynamic, 9 Am. Bankr. Inst. L. Rev. 287, Spring, 2001.
[226] See UCC § 9-109(a)(3) which states that "this article applies to: ……(3) a sale of accounts, chattel paper, payment intangibles, or promissory notes;……"
[227] See UCC § 9-102 (a) (61).

money, and oil, gas, or other minerals before extraction. Besides the payment intangibles, the term also includes software.

With the inclusion of the sales of promissory notes and payment intangibles, virtually very asset with a payment stream and thus every asset that can be securitized, is governed by the Revised Article 9[228].

3.2.2.2 The identification of outright sale of collateral with the security transfer

One important character of Article 9 is its identification of outright sale of collateral with the security transfer. And each version of Article 9 follows this approach as shown in the following.

Under §9-102 (1) b of the 1952 version, the article covers, in addition to security transfer, any sale of accounts, contract rights or chattel paper[229]. However, this apparently unqualified reference to “any sale” is considerably restricted by §9-104 (f) which provides that

> “This article does not apply to a sale of accounts, contract rights or chattel paper as part of a sale of the business out of which they arose, or an assignment of accounts, contract rights or chattel paper which is for the purpose of collection only, or a transfer of a contract right to an assignee who is also to do the performance under the contract.”

In the 1992 version of UCC9, 9-102(1) (b) states that Article 9 applies "to any outright sale of accounts."

Under the current §9-109, this article applies to:

> (1) a transaction, regardless of its form, that creates a security interest in personal property or fixtures by contract;
>
> …...
>
> (3) a sale of accounts, chattel paper, payment intangibles[230], or promissory notes[231];

[228] Lois R. Lupica, Revised Article 9, Securitization Transactions and the Bankruptcy Dynamic, 9 Am. Bankr. Inst. L. Rev. 287, Spring, 2001.

[229] With respect to the sale of accounts, debtors also sell their accounts as a means of financing their business operations, and this transaction is known as factoring.

[230] As defined by 9-102 (a) (61), "Payment intangible" means a general intangible under which the account debtor's principal obligation is a monetary obligation. While "General intangible" means any personal property, including things in action, other than accounts, chattel paper, commercial tort claims, deposit accounts, documents, goods, instruments, investment property, letter-of-credit rights, letters of credit, money, and oil, gas, or other

So we can find that Article 9 was at the beginning applicable to the sale of accounts subject to some limitations; later these limitations were eliminated after the 1992 revision; in the end, the application of Article 9 is extended to the sale of payment intangibles or promissory note beside the accounts and chattel paper.

There are several possible reasons for the adoption and preservation of this approach. (1) According to the co-drafter of Article 9, Grant Gilmore, the inclusion of sales of certain intangibles is novelty and Article 9 merely follows the pre-code receivable assignment[232]. These statutes were in reaction to an ephemeral problem arising from the Supreme Court's unexpected construction of an amendment to the Bankruptcy Act in a way that could have disastrous consequences for a receivables financier who took either a sale or a security transfer. Therefore, the UCC's coverage of sales of receivables was the result of an historical accident that had nothing to do with difficulty in distinguishing a sale from a security transfer[233]. (2) According to the official comment of Article 9, this approach generally has been successful in avoiding difficult problems of distinguishing between transactions in which a receivable secures an obligation and those in which the receivable has been sold outright[234]. And the coverage of sales of receivables can help avoid the risks of secret liens inherent in secured transactions[235]. (3) The principal effect of making the Article applicable to sales of receivables is that a transferee must file or otherwise perfect his interest in order to have protection against his transferor's creditors and subsequent assignees.

In order to realize the internal harmony of the legislation, the other terms used in the text of UCC9 also signifies the applicability of its rules to the sale of accounts. For example, in section 9-102 (12) "Collateral" includes: …… (B) accounts, chattel paper, payment intangibles, and promissory notes that have been sold. Also in the same section, the definition (72) of "Secured party" means: …… (D) a person to which accounts, chattel paper, payment

minerals before extraction. The term includes payment intangibles and software.

231 As defined by 9-102 (a) (65) ,"Promissory note" means an instrument that evidences a promise to pay a monetary obligation, does not evidence an order to pay, and does not contain an acknowledgment by a bank that the bank has received for deposit a sum of money or funds.

232 Grant Gilmore, Security interests in personal property, Little, Brown and Co., 1965, Vol. 1, P308.

233 Kenneth C. Kettering, True sale of receivables: A Purposive Analysis, 16 Am. Bankr. Inst. L. Rev. 511, Winter, 2008.

234 See official comment 4 of section 9-109.

235 Dan T. Coenen, Priorities in Accounts: The Crazy Quilt of Current Law and a Proposal for Reform, 45 Vand. L. Rev. 1061, 1073-1074, 1992.

intangibles, or promissory notes have been sold. In the definition of “security interest[236]”, it specifies that "Security interest" includes any interest of a consignor and a buyer of accounts, chattel paper, a payment intangible, or a promissory note in a transaction that is subject to Article 9. These provisions clearly indicate that the buyer of an account owns a status of a secured party, his interest in the account is treated as a security interest, and the account sold is treated as collateral. Moreover, Section 9-302 requires that the purchasers of accounts and chattel paper publicly file a financing statement, in accordance with Article 9’s procedure, in order to perfect their interests in such property.

Although this Article occasionally distinguishes between outright sales of receivables and sales that secure an obligation, it refuses to establish any rules under which a given conveyance of receivables should be re-characterized as a sale or a security transfer. That issue is left entirely to the courts which make an equitable determination base upon various factors, including the presence of a residual interest to be retained by the originator, the sale price set at fair market value by independent appraisers, the absence of recourse to the asset seller, the acquisition of dominion and control over the asset by the purchaser, and the intents of parties as evidenced by their writings.

3.2.2.3 The expansion of Article 9’s scope: Inclusion of sales of loans

The above-mentioned expansion of the accounts definition facilitates the securitization of various accounts. However, as described in the official comment of 9-102, “the right to payment fro money or funds advanced or sold” is expressly excluded from the definition of accounts, and it is deem as general intangibles which falls out of the reach of Article 9. As a result, when a bank-lender credits a borrower's deposit account for the amount of a loan, the bank's advance of funds is not a transaction giving rise to an account[237]. So the sale of loans

[236] "Security interest" means an interest in personal property or fixtures which secures payment or performance of an obligation. "Security interest" includes any interest of a consignor and a buyer of accounts, chattel paper, a payment intangible, or a promissory note in a transaction that is subject to Article 9. "Security interest" does not include the special property interest of a buyer of goods on identification of those goods to a contract for sale under Section 2-505, the right of a seller or lessor of goods under Article 2 or 2A to retain or acquire possession of the goods is not a "security interest", but a seller or lessor may also acquire a "security interest" by complying with Article 9. The retention or reservation of title by a seller of goods notwithstanding shipment or delivery to the buyer under Section 2-401 is limited in effect to a reservation of a "security interest." Whether a transaction in the form of a lease creates a "security interest" is determined pursuant to Section 1-203.

[237] See Official Comment of 9-102, 5. Receivables-related Definitions.

can not fall under the provisions governing the sale of accounts and this would impede the growth of securitization of various loans, including mortgage loans.

In order to remove this obstacle to the growth of securitization of loans, the 1998 revision to Article 9 includes the sale of payment intangibles and promissory notes and this expansion has exposed significant influences on the growth and proliferation of securitization. This is because the securitization transactions usually involve sale of loans of great volume and the securitization participants look to Article 9 to eliminate the uncertainty inherent under current law. A compromise was reached in order to satisfy the market's needs: sales of loans are included under Article 9, but purchasers of such assets are not subject to the filing requirement for the perfection of its interests in the transferred assets. And consequently, the security interests in sold payment intangibles and promissory notes are automatically perfected, thus eliminating the uncertainty and ensuring the priority of loan purchasers as against competing buyers. In this way, the securitization of mortgage loans has been institutionalized and legitimated.

3.2.2.4 The evolution of the rules governing "true sale"

Despite its great success of securitization since the 1970's, there always are debates about its doctrinal validity, which usually focuses on whether purported sale of the securitized assets should be respected as such or should be re-characterized as a secured loan by the SPV to the originator. UCC 9 governs both the outright sales of account receivables and the security rights on them from its inception. The determination of whether an asset transfer is a "true sale" or a secured loan is not governed by a statutory rule, because the drafters of the original version of UCC 9 declined to give any guidance as to the circumstances in which a purported sale of receivables should be re-characterized as a loan secured by these receivables or a true sale. And they explicitly relegate this issue to the courts. And the later revisions of UCC9 follow this approach.

The rule of "true sale" signifies the transfer of the securitized assets from the originator to the SPV removing them from the originator's asset balance and thus not subject to the subsequent bankruptcy estate. This is the central concern of the parties participating in the securitization transaction. A huge portion of the securitization transaction involves the sale of account receivables (especially the loans secured by mortgage in the case of MBS). The “true sale” determines what assets are included in a securitizing originator’s bankruptcy estate and what not. The consequences to the above characterization are very clear. According to the bankruptcy law and Article 9, the assets subject to security interest is in the reach of the bankruptcy estate. So the transferee’s interest in the account by “true sale”, once filed and consequently perfected, is not subject to the claim of any subsequent creditor in the event of the transferor’s bankruptcy, while the transferee of a secured loan is subject to the bankruptcy of the transferor enjoying the “adequate protection” granted by the law.

The question is whether the sold assets are included in the bankruptcy estate. We could observe the evolution of the rules governing the true sale of account receivables as following.

The Octagon V Rimmer: Identical treatment to outright sale and assignment of account as security

This case is a historically important one because of its great influence on the development of securitization. It established a rule in the negative sense with respect to the sale of the account receivables. In this case, the appellee Rimmer owned “a full Five Percent (5%) perpetual overriding royalty interest on all proceeds payable to [Poll] under the [System].” In 1988, Poll commenced a Chapter 11 bankruptcy case. In January 1990, the bankruptcy court confirmed the trustee's reorganization plan. Under this plan and the subsequent operations, the Poll system was finally conveyed to Octagon "free and clear of liens, claims, interests, and encumbrances." After assuming control of the System, Octagon refused to recognize any interest held by Rimmer in the System gas sale proceeds and failed to make any payments to Rimmer[238].

Throughout this litigation, Rimmer argued that he had title to the account and "owned" the account through buying the account, and Poll no longer had any ownership interest in the account. and therefore his interest has never been property of Poll's bankruptcy estate. Through citing *United States v. Whiting Pools, Inc.*, the court held that property of the

[238] See Octagon V Rimmer, 995 F.2d 948; 1993 U.S. App. LEXIS 12423.

bankrupt's estate includes any property subject to a security interest. So the impact of applying Article 9 to Rimmer's account is that *Article 9's treatment of accounts sold as collateral would place Rimmer's account within the property of Poll's bankruptcy estate.* At the same time, the court worried about that *the acceptance of Rimmer's transfer of ownership or title argument would allow an account buyer to benefit unfairly, at the expense of the bankrupt debtor's other creditors,* from the debtor's filing for bankruptcy. Because under Rimmer's theory, once the debtor declares bankruptcy, the fact of bankruptcy alone places the accounts sold to the unperfected account buyer beyond the reach of the bankruptcy trustee and all of the bankrupt's creditors. This result is contrary to the similar aims of Article 9 and the Bankruptcy Code.

By citing United States v. Trigg[239], the court reasoned as following: Article 9 does not attempt to classify a debtor's interest in the collateral as a property right or a specific legal interest. Article 9 also does not speak in terms of who has title to collateral among competing parties. Rather, Article 9 focuses on the rights and duties of the secured party, the debtor, and third parties. Article 9 grants rights in the collateral to creditors in the event a secured party fails to perfect his interest, regardless of the location of title and regardless of the debtor's or secured party's legal interest in the collateral.

The policy behind Article 9 is to ensure certainty for creditors and provide notice of security interests to third parties. Likewise, certain provisions of the Bankruptcy Code "are designed to protect creditors by eliminating secret liens." In keeping with these policies, the court hold that because, under Article 9, a sale of accounts is treated as if it creates a security interest in the accounts, *accounts sold by a debtor prior to filing for bankruptcy remain property of the debtor's bankruptcy estate*[240].

So we can find that although Article 9 applies to sales of accounts as well as assignments of accounts for security, the assigned account receivables remain property of the debtor's estate. In this respect, the courts did not take into consideration of the nature of the underlying

[239] See 465 F.2d at 1268.
[240] With respect to the protection of the buyers' interests in the bankruptcy process, the court stated that "Although property subject to a security interest is property of the debtor's bankruptcy estate, secured creditors of the debtor are provided "adequate protection" for their interest. See 11 U.S.C. 363(e) (providing that upon a secured creditor's request, bankruptcy court must place limits, as necessary to protect creditor, on trustee's power to sell, use, or lease property of the estate)."

transaction, despite they adopted the distinction between the outright sale and assignment of account as collateral.

This case had a great negative influence on the development of the securitization because the account receivables transferred to the SPV are also considered to be the property of the originator and thus in the reach of the bankruptcy estate in the event the originator falls into bankruptcy. This is not a true sale and consequently the bankruptcy isolation can not be realized.

3.2.2.5 The 1999 revision to Article 9 overrules Octagon V. Rimmer

Later in 1998, because of the growth and continued innovation of the credit market, the UCC9 revised the rule established by the Octagon V. Rimmer in order to remove this block to the development of securitization. Section 9-318 (a) of the revised Article 9 states:

> *A debtor that has sold an account, chattel paper, payment intangible, or promissory note does not retain a legal or equitable interest in the collateral sold.*

The official comment of this rule maintains that:

The fact that a sale of an account or chattel paper gives rise to a "security interest" does not imply that the seller retains an interest in the property that has been sold. To the contrary, a seller of an account or chattel paper retains no interest whatsoever in the property to the extent that it has been sold. Subsection (a) also applies to sales of payment intangibles and promissory notes, transactions that were not covered by former Article 9[241]*. Subsection (a) makes explicit what was implicit, but perfectly obvious, under former Article 9: The fact that a sale of an account or chattel paper gives rise to a "security interest" does not imply that the seller retains an interest in the property that has been sold. To the contrary, a seller of an account or chattel paper retains no interest whatsoever in the property to the extent that it has been sold*[242]*.*

So §9-318 makes it clear that once an asset is sold and the transferee's interest is perfected, the debtor remains no residual interest in the asset. If we read in conjunction with the

[241] See official comment 2 of section 9-318.
[242] See official comment 2 of section 9-318.

amendment to §541 of bankruptcy code, section 9-318 (a) completes the institutionalization of securitization transaction and allows certain securitization investors to circumvent the bankruptcy proves. And once it is determined that an asset conveyance is a true sale, the securitized assets are not subject to the jurisdiction of the bankruptcy process.

Conclusion: Because of the reluctance of the court system's acceptance of the sale of account receivable as a true sale, the securitization advocates revised the provisions of UCC-9, so as to facilitate the development of securitization. Their efforts concentrate on two aspects: in the first place, they expanded the definition of "account receivable" so as to bring the sale of mortgage loan into the jurisdiction of UCC-9 and thus to eliminate the uncertainty of the applicable law; later, the revised UCC-9 clarifies the legal consequence of the sale of account in section 9-318 (a) , providing that a debtor that has sold an account does not retain a legal or equitable interest in the collateral sold. These two provisions together institutionalized the securitization in law and reduced the legal uncertainty.

3.3 Bankruptcy isolation

Although the revision to UCC-9 has institutionalized the securitization in law, it is only the fist step to facilitate the proliferation of mortgage securitization. The more important thing is to eliminate the bankrupt risk of the MBS investors so as to lower the funding costs of the originators.

First of all, the inception and the later revisions of the secured transaction law (UCC- 9) and the amendment of bankruptcy code facilitate the growth of securitization through eliminating the transaction cost which was an outgrowth of an uncertain legal regime. The recent revision of Article 9 in 1998 and the amendment to the Bankruptcy Code have significant impact upon secured credit transactions and financial innovations such as securitization.

Secondly, the Article 9 revision, combined with the recent amendment to the Bankruptcy Code, has significant economic and distributive effects - not only upon the participants in the transaction, but also upon the originator’s shareholders, creditors, and other stakeholders both in and out of the bankruptcy process. In case of bankruptcy, it would allow certain securitization participants to avoid participation in the bankruptcy process and thus carve out from the bankruptcy estate the securitized assets. This results in fewer assets available for the distribution among the other creditors, such as employees, consumers, tort claims and unsecured creditors in the event of bankruptcy. So as some scholars have argued, these changes induce consequently the potential abandonment of two socially desirable objectives: (1) the reorganization of potentially viable business and (2) the equality of distribution of debtor's assets among creditors[243].

3.3.1 The transition of the bankruptcy code from pro-creditor legislation to pro-debtor legislation

Before the enactment of the bankruptcy code in the 1978, the pro-creditor legislation bankruptcy act of 1898 was in force. According to the provisions of that act, the jurisdiction over collateral was limited. In the liquidation case, only when the collateral was possessed by the debtor, could the trustee have power over it, otherwise, the trustee had no power over the collateral. Provided the trustee's possession of the collateral in the liquidation case, he could retain and sell the collateral only if some debtor equity existed. If no debtor equity existed, the secured party could claim that retention of the collateral would cause irreparable harm, which constitutes a grounds enough to lift the stay that a court would have instituted in a reorganization case, by denying interest compensation during the bankruptcy proceeding[244].

However, the enactment of the 1978 bankruptcy code changed this creditor-oriented legislation and became debtor-oriented. Historically, there has been a strong bankruptcy policy favoring the reorganization of the debtor. This policy is based on a assumption that an enterprise in operation is worth more than a bankrupt one, and thus an enterprise on the edge of bankruptcy is worth preserving for the benefit of debtor, the creditors, the employees, suppliers and the community, compared to a liquidation proceeding. So an estate is automatically created comprised of all the debtor's legal and equitable interests in property,

[243] Lois R. Lupica, Circumvention of the Bankruptcy Process: The Statutory Institutionalization of Securitization, 33 Conn. L. Rev. 199, Fall 2000.
[244] David Gray Carlson, The Rotten Foundations of Securitization, 39 Wm. & Mary L. Rev. 1055 ,1998.

including the collateral in a secured transaction. The secured creditors are subject to the bankruptcy’ s automatic stay and are forbidden to exercise all remedies that they have under state law with respect to the collateral until the stay has been lifted.

At the same time, the power of the bankruptcy trustee is expanded so as to help implement the reorganization of enterprises on the edge of bankruptcy. According to section 363 of 1978 Bankruptcy Code, the bankruptcy trustee is empowered to retain all the collateral contributing to the reorganization at the expense of the secured creditors' rights. It owns a potential risk that the trustee may abuse the property of another on behalf of the unsecured creditors.

The change of the bankruptcy policy has a great impact on the development of securitization wich was later employed to circumvent these unfavorable rules to the secured creditors.

3.3.2 Bankruptcy Tax: Why mortgage securitization has chosen "true sale" rather than secured lending?

The principle of "true sale" was adopted mainly for the purpose of separating the risk of the originators' bankruptcy, namely circumventing the bankruptcy jurisdiction that the Bankruptcy Code places on the lender of a secured loan to an Originator who has gone bankrupt. And this legal risk is entitled as "bankruptcy tax" by professor David Carson[245]. In order to understand why the securitization adopts the mechanism of "true sale" rather than secured lending, we should distinguish between (a) liens upon and (b) sales of intangible personal property which are both governed by the UCC 9, and discuss their discriminating treatment before the Bankruptcy Code in U.S..

Precisely speaking, Section 541 (a) (1) of the Bankruptcy Code of U.S provides that the bankruptcy estate includes "all legal or equitable interests of the debtor in property as of the commencement of the case". In 1979, Congress radically extended bankruptcy jurisdiction over secured creditors, with the spirit of encouraging the secured lender to contribute the use

[245] David Gray Carlson, The Rotten Foundations of Securitization, 39 Wm. & Mary L. Rev. 1055 ,1998.

of collateral to the rehabilitation of debtors by preserving the necessary bankruptcy estate. But this contribution was given no consideration, namely entitlement to post-petition interest. So the bankruptcy code helps the debtor recover from insolvency at the cost of the secured creditors. This uncompensated use of capital can be viewed as a wealth transfer or tax on secured creditors, "Bankruptcy Tax". Since then, this pro-debtor legislation remains to sustain the bankruptcy tax that the financial markets wish to circumvent.

So if the securitization adopts the mechanism of secured financing rather than the "true sale"--that is, if the Originator simply conveys a lien to the SPV on the account receivables (usually bank loans secured by mortgage), these secured assets are still owned by the Originator and would not escape the bankruptcy jurisdiction. So in the event of the filing of a petition under the Bankruptcy Code by or against the Originator, they would be part of the Originator's bankruptcy estate. The Bankruptcy Code would preserve for the benefit of the bankruptcy estate certain rights in those assets notwithstanding the SPV's security interest, and logically the Bankruptcy proceeding would impair substantially the SPV's power to enforce their security interest in those assets.

This injury imposed by the bankruptcy code to the rights of the SPV could be shown as following. In the first place, the automatic stay would prevent the SPV from exercising remedies against those assets. As a result of the automatic stay, a secured creditor in a reorganization case is typically compelled to wait a long time before realizing value on its secured claim, and thus the foreclosure is absolutely delayed by the automatic stay. Although a secured creditor has the right to have the stay lifted if its interest is not adequately protected, adequate protection has not been construed to require the secured creditor to be paid interest by way of compensation for the delay in realization that the stay itself forces on the secured creditor. Other provisions of the Bankruptcy Code may entitle the secured creditor to post-petition interest to the extent he is over-collateralized, but a secured creditor who is under-collateralized, or who is not sufficiently over-collateralized to be entitled to post-petition interest for the duration of the bankruptcy proceeding, must suffer the delay in realization imposed by the stay without any compensation. Secondly, the lenders have to obey the mandated notice provisions for secured lending under UCC-9 or the mortgage law of each states. Thirdly, the secured lenders' rights and interests over the collateral are in a pending situation, because of the defaulted debtors' eventual exercise of the equity of redemption.

If the “true sale” principle is to be respected, the Originator sells the receivables and it is supposed to retain nothing, neither legal interests nor equitable interests. This alleged non-relationship between Originator and the sold assets is considered to be the very key to securitization. So when the originator falls into insolvency, the creditors of originator can not get paid by the disposition of the assets transferred to the SPV.

So there is a direct conflict between the securitization and the policies of bankruptcy code with respect to the Bankruptcy Tax. The bankruptcy code imposes bankruptcy tax on secured transactions for the purpose of promoting reorganization by assuring that the debtor can use collateral during the reorganization process. But when a debtor decided to engage in the securitization, the legal structure of securitization would prevent it from collecting and using the cash flows deriving from the assets transferred to and owned by the SPV.

3.3.3 The creation of securitization for the purpose of bankruptcy isolation

Because of the influences of pro-debtor legislation, the creditors sought to circumvent the bankruptcy risks imposed by the bankruptcy code of 1978. The invention of securitization satisfied the urgent need of the financial sector to a great extent. It is notably that the rapid development and expansion of the securitization occurred shortly after the 1978 Bankruptcy Code.

The fundamental goal of all securitization transactions is to isolate the financial assets supporting payments on the ABS and MBS. Isolation ensures payments associated with the securities are derived solely from the segregated pool of assets and not from the originator of the assets. Investors of MBS are mainly concerned with two central issues: (1) the character and quality of the payment stream of their investment's underlying assets and (2) the efficacy of the transaction's structure[246]. The first issue is usually resolved by risk containment

[246] Lois R. Lupica, Circumvention of the Bankruptcy Process: The Statutory Institutionalization of Securitization, 33 Conn. L. Rev. 199, Fall 2000.

measures built into every asset securitization so as to guarantee the quality of the underlying assets. The second issue in part turns on the characterization of asset transfer, which in turn determines how the MBS investors will be affected by the originators' bankruptcy.

The distinctive feature of securitization is that the transaction is structured to isolate the asset pool from the originator in such a way that, if the originator later becomes subject to an insolvency proceeding, the proceeding will not interrupt the continued receipt by the SPV of the payment due to them through realization on the asset pool[247]. It means that the SPV will not be influenced by the insolvency of its originator, the asset pool will not be subject to the bankrupt estate and the bankruptcy law will not be applicable to the asset pool of the SPV. Because the securitized assets are the property of the SPE, they will not be part of the originator’ s bankruptcy estate.

For the purpose of bankruptcy isolation, the SPV is subject to an array of constraints. There are mainly three kinds of such constraints illustrated as following. The first constraint is the involuntary bankruptcy is countered by provisions in the SPV's organic documents authorizing it to engage only in activities necessary to the securitization transaction and by obtaining waivers of the right to file an involuntary petition against the SPV from third parties who deal with the SPV. The second is the voluntary bankruptcy which is countered by provisions in the SPV organic documents requiring a unanimous vote of the SPV's board of directors to authorize the filing a voluntary bankruptcy petition and requiring one or more members of SPV's board to be independent of the originator. The third constraints is the non-substantive consolidation with the originator, which is required by covenants requiring the originator and SPV to avoid acting in ways that would invocate the usual grounds for substantive consolidation, i.e, the SPV should comply with its proper corporate formalities, its assets are not to be commingled with those of the originator[248].

The achievement of the “bankruptcy isolation” helps the originator successfully transfer the credit risk associated with the securitized asset to the investors in the capital market and thus makes the credit risk independent of the creditworthiness of the originator.[249] .

247 Kenneth C. Kettering, Securitization and its discontents: The dynamics of financial product development, 29 Cardozo L.Rev.1553, 2008

248 Kenneth C. Kettering, Securitization and its discontents: The dynamics of financial product development, 29 Cardozo L.Rev.1553, 2008

249 In fact, the securitization industry has tried to validate securitization in the amendments to the Bankruptcy

What can we learn from the triumph of securitization in the marketplace despite its shaky doctrinal foundation? Some commentators maintained that the soundness of the doctrinal foundations of securitization is a moot question[250]. But the products of securitization have become too big to fail.

3.3.4 The critics to the relationship between true sale and bankruptcy isolation

According to what we have discussed above, the risk of bankruptcy isolation depends on the lien- sale distinction as is usually supposed by the securitization industry. But some scholars said that the bankruptcy jurisdiction only was decided by the fact whether any debtor interest in a thing exists- no matter how remote or improbable[251]. Naturally, if some hypothetical connection between the debtor and things can be located, the bankruptcy jurisdiction is justified. In some circumstances, the sold receivables could even be subject to bankruptcy jurisdiction, provided the debtor has some "legal or equitable" interest.

With respect to the sale of account receivables and chattel papers, there are at least three property interests, which have been explained by professor David Carlson[252]. The first is the debtor's power to convey the account receivables and chattel paper to a subsequent purchaser even after the SPV perfects its purchase by filing a financing statement according to Article 9. The second power refers to the power to collect the receivables, because in practice the originator is generally appointed as the collecting agent for the sold receivables. Although this power is of fiduciary nature, it can be thought as a legal title—— held for the benefit of another, which thus constitutes a foundation for bankruptcy jurisdiction. The third power belongs to the bankruptcy trustee who has a strong-arm power over the sold account receivables and chattel papers.

At the same time, the originator always retains the risk where the underlying assets go into

Code in 20005, but it failed. At the same time, the industry has procured the enactment by a number of states of securitization-validating statutes that attempt to make an end run around the Bankruptcy Code.

250 Kenneth C. Kettering, Securitization and its discontents: The dynamics of financial product development, 29 Cardozo L.Rev.1553, 2008.

251 David Gray Carlson, The Rotten Foundations of Securitization, 39 Wm. & Mary L. Rev. 1055 (1998)

252 David Gray Carlson, The Rotten Foundations of Securitization, 39 Wm. & Mary L. Rev. 1055 (1998)

default or other economic troubles according to some accounting rules. Usually the originator are allowed to retain substantial dominion over the transferred assets and substantial ownership of the SPV[253]. At the same time, the SPV is granted recourse to the originator which may be required to repurchase these assets from the SPE in the event the underlying account obligor defaults. This recourse to the originator makes the transaction look less like a "true sale" and more like a secured financing. The law and practices have made confronting choice with respect to the characterization of the transfer of financial assets, sale or lien: On one hand, U.S law has long permitted a buyer to "put" defective assets back to a seller without calling into question the sale character of the transaction; on the other hand, transactions in which the "seller" guarantees payment, or a particular return on investment, or the "buyer" has full recourse to the seller are generally viewed as loans and not sales.

These property rights may seem slight or insubstantial. The provisions section 541 (a) (1) is very expansive, as shown by the rhetoric “all legal or equitable interests in property”. So a plain interpretation of it helps the judge find bankruptcy jurisdiction on any debtor interest in a thing. And this will cause a disastrous result for the securitization because the debtor is considered to have a legal title to the sold receivables and chattel papers in some circumstances.

Another notable fact is that the actual effect or purpose of "Bankruptcy isolation" has changed fundamentally. When the securitization first emerged in the late 1970's, there was a premise that the quality of the securitized assets owned by the SPV is better than that of the non-securitized assets owned by the Originator. So the principles of "true sale" and "bankruptcy isolation" are necessary for the isolation of risks from the originator. As discussed above, with the development of the mortgage-backed security market, there are increasing amounts of mortgage loans being securitized, and at the same time, the underwriting criteria for the mortgage loans securitized was cut down, so the quality of the assets of the SPV is worse than before, and the assets of the SPV is high-risky. Thus there occurs a fundamental rotation: T*he quality of the assets owned by the SPV is worse than that of the originator*. Here, the principles of "true sale" and "bankruptcy isolation” "are used by the originator to transfer the high-risky assets and the credit risks of them to the investors in

[253] Edward J. Janger, Muddy Rules for Securitizations, 7 Fordham J. Corp. & Fin. L. 301, 2002.

the capital market, and to avoid their responsibility to the MBS investors in the event of the SPV's bankruptcy. So the bankruptcy isolation has been misused by MBS industry.

3.4 The rotten legal foundations for mortgage securitization and the financial crisis

Throug the above analysis, we scrutinize the legal underpinings of both EU covered bond and the U.S. mortgage securitization, paying particular attention to the true sale and bankruptcy isolation in the U.S context. Comparative to the EU statutory legal regime, the legislations governing the U.S mortgage securitization have gone a way to long and have deviated the right direction. The following analysis will show us why and how these legislations have facilitaed the accumulation of financial risk and finally caused the financial crisis.

3.4.1 The secret lien created by law and practices

In order to make the security interests enforceable against the third paty, particularly those of non-possessory ones, it is required that the security interests over both the real property and personal property should be disclosed and thus should be observable by the bona fide parties. So the security interest over real property is recorded in the public register, and the security interest over personal property is disclosed in the notice filing system. One of the Ten Commandments of Mercantile Law is that an effective [notice] filing system is the center pole that holds up the entire personal property security tent[254]. Also as Grant Gilmore[255] has observed, "One of the most firmly rooted doctrines of the common law," was "the protection of creditors against undisclosed interests in property.[256]" So the secret lien was not encouraged by the common law system. In fact, the secret lien doctrine ’ s intellectual and legal underpinnings stretch back to sixteenth century England, to the statute of 13 Eliz., c.5[257].

[254] James J. White, Reforming Article 9 Priorities in Light of Old Ignorance and New Filing Rules, 79 Minn. L. Rev. P529, 530,1995 .
[255] Professor Grant Gilmore is the co-drafter of the UCC-9.
[256] Grant Gilmore, Security Interests in Personal Property 3.2, at 67; 8.7, at 274 (1965) ("In the history of our security law there has been one constant factor: whenever a common law device has been covered by a statute, some form of public recordation or filing has been required as a condition of perfection of the security interest.").
[257] Jonathan C. Lipson, Secret Liens: The End of Notice in Commercial Finance Law, 21 EMORY BANKR.

The term "secret lien" here refers to the situations where the security interests in property that is neither recorded nor otherwise readily observable in the public recording system. Secret liens are believed to be problematic, preventing potential creditors from accurately assessing the credit quality of a potential debtor, causing subsequent creditors or buyers to ignorantly rely upon incomplete or incorrect information or purchase a property interest which is subject to incumbrances, causing priority or rights conflicts between the titleholders of the "secret lien" and the subsequent bona fide third parties in various ways. One of the main purposes of having real property recording statutes was to avoid "surprise liens" (secret liens afforded priority over subsequent purchasers) and ensure that real estate purchasers and investors are fully informed[258]. This can also be applied to the personal security interests. At the same time, the securitization usually involves two recording procedures for the assignment of mortgage receivables and the mortgages themselves under different applicable law. With particular reference to the securitization in U.S, UCC-9 will be applicable to the assignment of the mortgage receivables, while an individual state property law will be applicable to the recording of mortgage.

The secret lien problem is historically addressed by recording system and later the notice filing system, both of which aim to prevent debtor fraud through granting security interests over the same property without notifying the subsequent secured creditors of the prior claimants. Preventing the debtor fraud is that believed to be the raison d'etre of the filing system[259], which must reduce, if not eliminate entirely, this fraud risk. However judicial and legislative authorities are increasingly creating exceptions to this system and permitting lienors to assert secret claims that are afforded priority over subsequent bona fide purchasers for value[260]. Meanwhile, the financial sector also develop some mechanisms to circumvent the recording of security interests in the public register so as to reduce transaction costs, such as the creation of MERS in U.S as we have analyzed in 3.1. Here, we discuss the secret lien in the context of mortgage securitization, concentrating on the secret liens encouraged both by the real property law and secured transaction law.

DEV. J. 421, P429–432, 2005.

258 Chad J. Pomeroy, Ending Surprise Liens on Real Property, 11 Nev. L.J. 139, Fall, 2010.

259 Jonathan C. Lipson, Secrets and liens: The end of notice in commercial finance law, 21 Emory Bankr. Dev. J. 421, 2005.

260 Chad J. Pomeroy, Ending Surprise Liens on Real Property, 11 Nev. L.J. 139, Fall, 2010.

3.4.2 secret liens deriving from the real property law

The problem of secret liens is, in many respects, a subset of the basic informational problems embodied in the law of property: How do we know who has what rights with respect to what things?[261] Historically, the physical possession of the collateral was a strong evidence of the enjoyment of security interests over collaterals. This worked very well in a more simpler society, while we are now in a more advanced and complicated time with abundant new forms of properties, such as intellectual property and the financial assets. These property can not be owned by physical possession, only non-possessory security interests can be granted so as to make them more liquid on the marketplace. As the economy grew in depth, breadth, and complexity, possessory security interests became neither useful nor appealing to those engaged in increasingly sophisticated mercantile transactions.

The recordation system was developed to perfect these non-possessory security interests. The recordation was viewed as a way to address the problem of fraudulent conveyance - a conveyance intended to place property out of the reach of creditors. Recordation systems could deter or correct the problems of fraudulent conveyances and secret liens. Recording was viewed as a means of deterring the actual or constructive fraud presumed to be at the heart of the non-possessory property interest[262].

However, the development of mortgage securitization created secret lien in a more complex market environment. As we have analyzed in 3.1.2.2 (B), MERS was created as the mortgagee and they acted in the name of the true mortgagee. Because of the MERS involvement in mortgage securitization, the potential transaction counterparties of the mortgagors do not know the true identity of its mortgagee and can not evaluate the credit quality of the mortgagor. More importantly, the true mortgagees are usually the securitizers who at the same time are also the debtors for the mortgage-backed securities(MBS). The creation of MERS help these securitizers remove the liabilities from their balance sheets and

[261] Jonathan C. Lipson, Secrets and liens: The end of notice in commercial finance law, 21 Emory Bankr. Dev. J. 421, 2005.
[262] Grant Gilmore, Security Interests in Personal Property 2.1-2.2,P25-27.

hide their debts to the investors of MBS. However, these removed assets are usually treated as the assets of the securitizing investment banks. So the securitizers create secret lien on those transferred assets.

3.4.3 Secret liens deriving from the secured transaction law

Secret lien doctrine today continues to function in the form of the avoiding power or in§544(a)(1) of the Bankruptcy Code—the power of bankruptcy trustees to void secret transfers made prior to bankruptcy. However this goal has been undermined by a variety of statutory legal changes that replaced the flexibility and breadth of common law secret lien doctrine with a system that is more formal, more rigid, and less effective..[263]

For the secret liens deriving from the secured transaction law, two legislative changes have taken place years before the 2008 financial crisis. First is the loosened standards of information disclosure as formal filing systems which has de-emphasized meaningful disclosure to creditors and focused instead on technical compliance. The UCC-9 adopts the notice filing system, which just requires the filing of a brief description, in substitute of the traditional recordation system[264] which is burdensome both for the filers and searchers. The second is that various statutory exceptions have be granted to certain favored financial products—asset securitizations and related derivatives—, preempting them out of the reach of the Bankruptcy Code. These exceptions were created through amendments both to the Bankruptcy Code[265] and state law provisions related to"property of the estate."

Firstly, for the attachment of security interests over the mortgage receivables, a financing statement identifying the borrower, the lender, and the property involved had to be filed under UCC-9. The financing statement has thus been viewed as a potent antidote to the problem of

[263] Michael Simkovic, Secret Liens and the Financial Crisis of 2008, American Bankruptcy Law Journal, Vol 83, 2009.

[264] These early recordation systems required the mandatory disclosure of rich information under secret lien doctrine. Unless a lien-holding creditor recorded the lien, the law would treat non-possessory liens as fraudulent and therefore voidable. Early recordation systems required extensive disclosures, including the filing of the mortgage document itself, and sometimes affidavits and acknowledgements of good faith. See Michael Simkovic, Secret Liens and the Financial Crisis of 2008, American Bankruptcy Law Journal, Vol 83, P259, 2009.

[265] The most prominent effort to obtain a statutory safe harbor involved 912 of the Bankruptcy Reform Act of 2001. This provision would have amended the Bankruptcy Code to provide that assets transferred in a qualifying transaction would be excluded from the debtor's estate. In light of the alleged misuse of SPEs in the Enron case, 912 was challenged and eventually pulled from the Bankruptcy Reform Act. See Jonathan C. Lipson, Secrets and liens: The end of notice in commercial finance law, 21 Emory Bankr. Dev. J. 421, 2005.

secret liens. However, the UCC-9 drafters sticked to one idea that, for certain kinds of transactions," such as those involving inventory or accounts receivable, it is not essential for all of the details of the transaction to be spread upon the public record so long as the record gives an indication where an interested party might inquire to learn whether or not particular collateral of the indicated class or type is subject to the perfected security interest.[266] What is required to be filed is not the security agreement itself, but only a simple record providing a limited amount of information (financing statement)[267]. For this reason, the financing statement is moderately general and flexible, just identifying the name of the debtor and secured party and briefly describing the collateral by"specific listing," "category," "type," or "any other method, if the identity of the collateral is objectively determinable." Its main or unique function is to notify the potential creditors that there exists a potential security interest over the property of the debtor, while it does not disclose the details of the underlying transactions. Further inquiry should be made so as to know exactly the coverage of collateral and the priority among different claims. So the financing statement is most decidedly not a property recordation device, as might be found in the real property or intellectual property contexts[268].

Because of the ambiguous description of the scope of collateral, it is possible to create secret lien on the securitized mortgage receivables and thus the investment banks could hide their debts and thus operate in the market with high leverage. Hidden leverage is a perennial problem because debtors rationally wish to borrow at the lowest price possible. Debtors can borrow at more attractive rates by hiding their existing debts and creating an exaggerated appearance of creditworthiness.[269]

Secondly, with particular reference to the securitization of mortgage receivable, the assignment of them to the SPV should also file a financing statement so as to perfect the SPV's security interest over the securitized mortgage receivables, because the transfer of mortgage receivables from originators to the SPV is considered as a true sale which

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266 Peter F. Coogan, Public Notice Under the Uniform Commercial Code and Other Recent Chattel Security Laws, Including "Notice Filing," 47 Iowa L. Rev. 289, 1962.

267 See the official comment of section 9-502 about notice filing.

268 Jonathan C. Lipson, Secrets and liens: The end of notice in commercial finance law, 21 Emory Bankr. Dev. J. 421, 2005.

269 Franco Modigliani & Merton Miller, The Cost of Capital, Corporation Finance, and the Theory of Investment, 48 AM. ECON. REV. 261, P273, 1958.

constitutes the heart of securitization. The successful "true sale" of financial assets will help insulate them from the originators' potential insolvency. However, because the courts are reluctant to recognize the putative sale of payment obligations as demonstrated in the above mentioned Octagon Gas Systems v. Rimmer and the recent LTV Steel case, the securitization industry began to sought legislative safe harbor for the true sale of financial assets so as to circumvent the filing of the financing statement under UCC-9 which has been very general and brief as illustrated above. In these legislative safe harbors, the transferred financial assets n a qualifying transaction would be excluded from the debtor's estate. One example is the Delaware's Asset-Backed Securities Facilitation Act ("ABSFA"), providing that, "notwithstanding any other provision of law," any property purported in the transaction documents to be transferred in a securitization transaction "shall be deemed to no longer be the property, assets or rights of the transferor."[270] The phase "notwithstanding any other provision of law," in fact excludes the application of UCC-9 and thus the requirement of the filing of financing statement. It signifies that any purported transfer of financial assets which is declaimed to a true sale will be treated as a "true sale" and the transferred assets will be out of the reach of the bankruptcy estate in case of the future insolvency of the originators. So the ABSFA effectively ends the obligation to give notice and releases the participants in a securitized transaction from the duty to give notice of the transaction by filing a UCC-1 financing statement. A secured party will have a non-possessory interest in a debtor's property that is not readily discoverable from the public record.

In fact, the secret liens in mortgage securitization arise from two related doctrinal principles in the financial innovations, namely form dominates substance and the bankruptcy privileges are granted to financial products. With respect to the form dominates substance, it refers to the lien-loan distinction in the mortgage securitization. As some professors have analyzed, the securitization is in fact a non-recourse loan. However, the "true sale" in the mortgage securitization is well recognized and thus the securitized assets are out of the reach of bankrupt estate. Consequently, the form triumphs the economic substance of the underlying transactions. The most important of this triumph is the bankrupt privileges granted to

[270] Del. Code Ann. tit. 6, 2703A(a)(1) (2004).

securitizing transactions rather than the secured loans. After the 2005 Amendment of the Bankruptcy Code[271], the financial contracts, in its most broad sense, have received protection from the Bankruptcy Code. When a debtor falls into bankruptcy, the counterparties of the debtor should be subject to some core provisions of the Bankruptcy Code, such as the automatic stay, limitations on preferential and fraudulent transfers, and nullification of ipso facto clauses. However, the counterparties of financial contracts are not subject to these limitations, and are are free to terminate agreements, liquidate positions, and set off claims against margin or other collateral posted by the debtor[272]. These special treatments or safe harbor for financial contracts are considered to be necessary for the protection of financial markets. Without this safe harbor, the financial markets will suffer sudden shocks, or a systemic liquidity crisis, causing markets to collapse. That is because liquidity is vital for the stability of financial markets, especially those markets for forwards and derivatives. If these products are subject to the jurisdiction of Bankruptcy Code, they would be unable to liquidate the volatile financial contracts before the and thus are "locked" in the bankrupt estate. One debtor's default would have a domino effect, and finally undermine the entire financial market. In order to reduce this systemic risk, the Bankruptcy Code gradually expand its range of protection to financial contracts since 1978[273] through broad-ranging definitions of protected transactions and contractual rights. After the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005, it is believed that any transaction that bears the formal markings of a swap, repo, forward, commodity contract, or securities contract is protected.[274]

The problem of "secret lien" reveals the dynamic relationship between capital market and secured transaction law. Secret lien is the product of private negotiations among market

[271] The Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 amends the Bankruptcy Code to clarify and expand the existing policy of providing special treatment for parties to financial markets contracts, including securities contracts, futures contracts, forward contracts, repurchase agreements, swaps and related derivatives. See Rhett G. Campbel, Financial Markets Contracts and BAPCPA, 79 Am. Bankr. L.J. 697.

[272] Edward R. Morrison & Joerg Riegel, Financial contracts and the new Bankruptcy Code: Insulating markets from bankrupt debtors and bankruptcy judges, 13 Am. Bankr. Inst. L. Rev. 641, Winter, 2005.

[273] At the start, the Code only granted protection to commodity and forward contracts, and the range of protection was expanded to securities contracts in 1982, repurchase agreements in 1984, and swaps in 1990. With the recent Bankruptcy Abuse Prevention and Consumer Protection Act of 2005, it retains the five basic categories of protected transactions--securities contracts, swaps, repurchase agreements, forwards, and commodity contracts, while the definition of each transaction is restructured and updated.See Edward R. Morrison & Joerg Riegel, Financial contracts and the new Bankruptcy Code: Insulating markets from bankrupt debtors and bankruptcy judges, 13 Am. Bankr. Inst. L. Rev. 641, Winter, 2005.

[274] Edward R. Morrison & Joerg Riegel, Financial contracts and the new Bankruptcy Code: Insulating markets from bankrupt debtors and bankruptcy judges, 13 Am. Bankr. Inst. L. Rev. 641, Winter, 2005.

participants and thus represents the endogenous or spontaneous impulse of the market which should be corrected by public intervention. While the establishment of recording system under real property law and the notice filing system under UCC-9 is a response to the drawback fo the market. The public intervention, in the form of mandatory notice filing rules, constitutes the legal foundation for the healthy and continuous development of the secured lending market and the securitization market. However, the legislative changes occurred in the past years have rotten this foundation. The collapse of this legal framework also destroys the basic mechanisms for the market rehabilitation. At the same time, as a result of the legislative changes, the new acts or amendments to existing acts such as the bankruptcy code, with lengthy and detailed definition, deprived the judges of their judicial discretion. Judges are discouraged from engaging in "substance over form" analysis. The new definitions are pure form; they protect transactions that fit within formal definitions developed in the marketplace. The role of the judge is to identify these industry definitions. So the common law is no longer efficient and sensitive to the changes in the marketplace. It becomes formalistic, rigid and inefficient. The substitution of traditional secret lien doctrine with the statutory legal framework is not successful and the aftermath of these legislative changes is disastrous. In this sense, the 2008 financial crisis is inevitable.

Conclusion

This part has concentrated on three topics, the mortgage law and the different approach of securitization in two legal systems; the statutory institutionalization of mortgage securitization from the perspective of true sale and bankruptcy isolation; and the dynamic relationship between the problem of secret lien and the current financial crisis. Through these analysis, we find that the legislative changes in the past 40 years have rotten the legal foundation for the healthy development of mortgage securitization and the market rehabilitation in case of financial crisis. Particularly, the modification of the secured transaction and Bankruptcy Code, and the creation of MERS in the 1990's constituted the most radical institutional changes that have deregulated the mortgage securitization. The fundamental rules, such as the secret lien doctrine and principle that economic substance dominates form, were abandoned by the U.S legislators. The efficient and flexible common law was replaced by a rigid and inefficient statutory legal framework for mortgage securitization. The common law system was no longer able to give a timely response to the market changes. So the assertion of LLSV that the common law is more efficient than the civil law with respect to the creditor protection is not true. Another fact is that the civil law countries in continental Europe, such as Germany and Denmark, do not suffer from the mortgage securitization. Why this happens? Is the civil law system is more efficient than the common law in this aspect? Chapter four will give an answer about them.

IV The mortgage's role in credit risk control in residential mortgage securitization

In chapter III, we have analyzed the legislative changes surrounding the mortgage securitization, and its influence on the financial stability. In this part, we want to analyze the mortgage's role in securitization in a more microeconomic perspective. The analysis will answer the following questions: why mortgage securitization has replaced the traditional mortgage lending and become so common in the marketplace of U.S and the other advanced economy bodies? How securitization has changed mortgage's role in credit risk control? And is this change is economically relevant to the 2008 financial crisis? What improvements shall we do in the future so as to avoid the asserted drawbacks of mortgage securitization in credit risk control so as stabilize the financial markets?

In this part, I will study the transition from secured lending to securitization and the possible causes of this transition in the first instance. Then the influence of mortgage's role on credit risk control will be analyzed. In the third part, I will do a comparative research between the U.S mortgage securitization and the Europe covered bond, discussing their advantages and disadvantages in credit risk control and finally in stabilizing the financial market through reduce the systemic risk.

4.1 Mortgage' role as a collateral in the loan contract: Analysis from the point of view of secured lending

Before the inception of securitization, secured lending has been employed for financing economic activities for centuries as we have seen in chapter two, and legal rules favoring the security and transfer of credit are vital to economic development. The literature on the role of mortgage in secured lending usually departs from a loan contract in which mortgage is granted to secure the performance of the underlying obligation. Here, we talk about the role of mortgage in a more general sense, together with the other forms of security interests over property., so we will just discus the role of collateral in a loan transaction. Comparatively, the analysis of the role of collateral in the loan contract is a micro one. According to this traditional approach, the collateral is employed to impose influence on the personal relationship between the lender and borrower, to provide incentives for the borrower's performance of the underlying debt.

4.1.1 The role of mortgage in loan contract: A traditional approach

With respect to the secured lending, both the law scholars and economy scholars have done in-depth research in this field and they have generated an enormous amount of scholarly literature. In the loan contracts' terms, the grant of collateral for the performance of the loan is widely accepted and even become the provision of a standardized loan contract. Here I will try to explain the pattern of secured lending in congruity with its actual pattern in the economy through comparing the advantages of secured lending relative to the unsecured lending. In general, the secured lending, to a great extent, can reduce the transaction costs between the lender and borrower. The transaction-cost-reduction advantages, from the point of view of the lender, include: the forcible enforcement in case of default, monitoring the borrowers' future activities, the priority of repayment in the event of borrowers' insolvency. These advantages can help us explain "why firms sometimes (but not always) issue secured debt rather than unsecured debt or equity."[275] we can arrange our discussion following the proceeding of a typical loan transaction.

4.1.1.1 During the negotiation process

At the starting stage of the loan transaction, the lenders should determine whether or not to extend the credit to the borrower. The banks making the loan usually take into consideration two factors: the interest rate they receive on the loan, and the riskiness of the loan. The interest rate, which is greatly influenced by the policy of central bank, is usually stable within a certain period given the market situation. Therefore the interest rate is not the best instrument to sort the potential "good borrower" because of its administrative limitation. The

[275] Robert E. Scott, The truth about secured lending, 82 Cornell L. Rev. 1436, 1997.

lenders should formulate the other terms of the loan contract in a manner designed to induce the borrower to take actions which are in the interest of the bank, as well as to attract low-risk borrowers. The borrowers' willingness to grant collateral to secure the future repayment of the loan, will help them to get the credit for their economical activities. For the lender, the grant of collateral can lower the lenders' expected loss because of the potential default of the borrower, and enhance the lenders' ability to force the borrowers to repay the loan even if they are in financial trouble. In this aspect, Joseph E. Stiglitz and Andrew Weiss discussed the role of collateral in the context of credit rationing in markets with imperfect information. They show that collateral requirement is one of the important “screening devices”, together with the interest rates, the amount of loan and the amount of collateral, to identify the riskiness of the borrowers. However, Increasing interest rates or increasing collateral requirements could increase the riskiness of the bank's loan portfolio, either by discouraging safer investors, or by inducing borrowers to invest in riskier projects, and therefore could decrease the bank's profits[276]. And this constitutes the main cause for the existence of credit rationing.

Why the collateral could increase the borrower’s incentive to repay the loan when it is due? Because of the collateral, the borrower desires to avoid the losses that it would suffer if the lender enforces the loan forcibly as the legal remedy for the default. As Robert. J. Barro (1976) has indicated, default on a loan triggers the loss of collateral value to the borrower, where this value is stochastic at the time when the loan is negotiated. Usually the lenders do not extend a loan up to the whole value of the loan, while they just advances a loan equal to a certain portion of the value of the collateral. With particular reference to the mortgage loan, the loan-to-value ratio is usually floating between 60% to 100%. During the years before the financial crisis of 2008, the American banking industry required less down payment for the mortgage loan, and ultimately issue interest only mortgage loans. These marketing measures has resulted in the declining quality of mortgage loans which were securitized later. This constitutes one of important causes of the crisis.

The loan-to-value ratio can reflect the strength of the incentive imposed to the borrowers. And this leverage depends on the loss that the secured creditor can inflict on the borrower by

[276] Joseph E. Stiglitz and Andrew, Credit rationing in markets with imperfect information, the American economicreview, volume 71, issue 3,1981, P393-410.

enforcing its legal remedies against the borrower[277]. The bigger the loss, the stronger the leverage. And consequently, the borrower will have more incentive to repay the loan. Once the borrower falls into default, the lender-mortgagee will seek foreclosure of the house by the court. The value of foreclosed house is usually less than its market value. So the expected loss of the defaulted borrower will be the difference between the market value and foreclosure value, plus the necessary legal expenses. For a reasonable lender, it just calculate the difference between the residual value of the collateral after the foreclosure and the value of the loan. If it is believed by the lenders that the residual value of the collateral after foreclosure is greater than the value of loan, they will extend the loan without hesitation, given the other requirements being satisfied. That is because the lenders will suffer no loss even if the borrower could not repay the loan, either voluntarily or involuntarily. So the grant of collateral gives the incentive to a reasonable borrower who will take into consideration of this loss when he decides to default or not.

4.1.1.2 During the loan period: Monitoring the activities of borrower and Restraining the borrower from risky investments

When a commercial lending transaction is started, it has differentiated incentives to the lender and borrower because of the potential different interests. The borrower usually tends to invest in a high-profit business which also signifies high risk. However, the lender has no claim to the extraordinary profits besides the interest due, if the borrower succeeds in the investment, while he will suffer the loss caused by the investment failure. So it is necessary to restrain the borrower from high-risk investment conduct. The simplest way to limit the borrower's risky investment is by focusing the lender's monitoring activities on certain assets. For example, the mortgage registration grants the mortgagee strong protection so as to monitor the mortgagor's disposal of the collateral. The borrower (mortgagor) has to get the permission to dispose the mortgaged building. So the lender could focus on monitoring the collateral so long as the liquidation value of it could secure the repayment of the loan. It is easier than to scrutinize the activities of the entire company.

[277] Ronald J. Mann, Explaining the pattern of secured lending, 110 Harv. L. Rev. 625, January, 1997.

4.1.1.3 The priority to receive repayment in bankruptcy

Another advantage of the secured lending is the priority in repayment granted to the lender with respect to the collateral. As we have analyzed in chapter 3, the mortgage over real property should be recorded in the public registry. Under both the legal framework of mortgage laws in civil law system and common law system, this recording shares the similar effect on the law, namely the protection of the security interests by law and its priority according to their recording time. The protection and the priority is usually implicit and will become explicit in the eventual liquidation or insolvency of the borrower. If the lender recorded its mortgage at the first place, they will be granted a first lien over the collateral against the borrower and the subsequent creditors. When the borrowers falls into liquidation or insolvency, the lender will be first repaid, then the subsequent creditors, and ultimately the borrower if there are any residual. If the value of the collateral can not cover all the debt of the mortgaged lender, the value of the collateral will be used to satisfy the lender with the first lien; the unsatisfied part of the debt will be treated as an unsecured obligation of the borrower and get repaid with the other property owned by the borrower together with the other unsecured creditors. It is notable that this priority will be respected both in the voluntary and forcible liquidations.

At the same time, in order to get fully repaid, the loan contract usually provides a provision that forbids or restricts the subsequent borrowing so as to prevent risky operation of high leverage. The collateral also can help limit subsequent borrowings by reducing the borrower's ability to grant a security interest on the collateral to the subsequent lenders. In case of a mortgage on the housing, the prior lender enjoys a security interest on the housing for the repayment of his loan, and he also enjoys a priority over the subsequent lenders as a result of the registration of his mortgage in the registry. So this limitation imposed to the subsequent lenders reduces the possible borrowing because of its relatively higher cost. It is believed that the first lien is more attractive than the second lien. They priority of repayment is one important institutional advantage of secured lending that attracts the lenders in the credit market. By restraining the future borrowing, the lender limits the borrower's ability to decrease its interest in the business, as long as the lender also can limit the borrower's ability to dispose its assets in the business.

4.1.1.4 The forcible enforcement of debt in case of default

The most obvious advantage to the lender of issuing secured credit is that receiving collateral increases the likelihood that the lender will be able to collect the loan forcibly if the borrower does not voluntarily repay it[278]. If the borrowers falls into default or they do not want to repay the loan, the lenders can apply the court to enforce the loan contract and foreclose the collateral. Through recording in the public register or the filing of a financing statement, the lenders enjoy a security interest over the collateral.

Because of these advantages, the secured lending is very common and well accepted by the credit market, especially in the housing market. The loans for each purchase or improvement of house are commonly secured by the mortgage on the house.

4.1.2 The costs of the secured lending

With respect to the efficiency of secured lending, there are many debates among the scholars, mainly those in U.S. Currently, there are several standards to judge whether the secured lending is desirable from the point of view of economy. The first approach is to judge the economic efficiency which can be determined by two sub-standards: the Kaldor-Hicks test and the Pareto test. The former considers an activity as efficient if it maximizes the overall value even if some ones are worse off, while the later considers it as efficient if it maximized overall value without any participants being worse off.

In 4.1, we have analyzed the benefits of secured lending for the loan transaction participants, it needs to analyze the costs of it so as to make our discussion more scientific and meet the economic pattern of credit market. The secured lending imposes transaction costs to both the lender and borrower relative to the unsecured lending. As Prof. Mann has

[278] Alan Schwartz, Security interests and bankruptcy priorities: A review of current theories, 10 J. Legal Stud. 1, 7-30 , 1981.

observed in his interview with the various companies, the unsecured lending was preferred by the borrowers and they are willing to accept a significant increase in interest rates to avoid the burdens of a secured transaction[279]. These costs include: Firstly, the secured lending imposes information cost for the lender and borrower. In order to investigate the financial strength or creditworthiness of the borrower, the physical situations of the collateral, the existence of prior security interests or other claims on the collateral so as to insure that there is no competing interests on the same collateral, the registration of security interests through public registry, the market value of the collateral and the potential depletion or depreciation of the collateral, the borrower's title to it and the necessary insurance fee for the collateral, such as the appartement. Comparatively, the unsecured lending does not engender these costs relating to the collateral. And thus the secured lending has caused efficiency loss relative to the unsecured lending. This is why some scholars has suggested to abolish the secured lending, especially the priority in repayment. As argued by Professor Alan Schawartz, a leading figure in law and economics, secured lending is evil, irrational.[280]

Except the transaction costs of the secured lending imposed to lenders and borrowers, it also has external effects to the other creditors or stakeholders. This external effect of secured lending is related to the bankruptcy procedure when the there exists competition between the secured lender and the other unsecured creditors. The secured lenders will be repaid in priority under the Bankruptcy Code, while the other can only be repaid by the residual value of the collateral, otherwise they will receive nothing. The protections granted to creditors could either be contractual or proprietary. The secured lenders enjoy the proprietary protections, while these unsecured creditors or stake holders can also be described as creditors without proprietary protections. It is also considered as an extended application of the Pareto test: it can be unfair for some creditors to suffer for a system which brings overall benefit[281]. The second approach is to assess the fairness of secured lending. This approach usually focuses on the question of fairness to the unsecured creditors or stake holders, such as creditors extending loans to borrower without collateral, tort claimants, customers and etc, in

279 Ronald J. Mann, Explaining the pattern of secured lending, 110 Harv. L. Rev. 625, January, 1997.
280 Alan Schwartz, Security Interests and Bankruptcy Priorities: A Review of Current Theories, 10 J. Legal Stud. 1, P33,1981.
281 Louise Gullifer and Jennifer Payne, Corporate Finance law: Principles and Policy, 2011, P293.

insolvency. Because of the priority offered by the secured lending to certain creditors, the unsecured creditors and subsequent secured creditors are worse off, especially in the bankruptcy procedure, for the reason that they can not recover their credit in full.

The above analysis is the traditional approach of secured lending since the 1970's. However, the mortgage transaction has experienced great evolution since then, especially the development and proliferation of mortgage securitization which has radically changed the nature of mortgage from a stagnant lien into a marketable commodity in the capital market. And consequently mortgage lending has been replaced by mortgage securitization to a graeat extent. And at the same time, the establishment and development of secondary mortgage market has greatly affected the function of mortgage in the credit risk control. This is another important reason of the 2008 financial crisis. In the following parts, we will focus on why these have happened and what are their effects on mortgage law. All these work need a new approach of analysis.

4.1.3 The inherent interest rate risk of the traditional mortgage lending

As a commentator said, a significant fundamental factor underlying the current, as well as the past, finance market crisis is the failure of policymakers to understand and take into account the nature and characteristics of mortgage loan as an item of property and, to a lesser extent, the nature of mortgage loan transactions[282]. For the owners of the mortgage loans, they are long-term assets because of the creation of amortization since the Great Depression in the 1930's. With respect to the credit risk control of the mortgage loan, we should in the first place understand this nature and characteristic of mortgage loan transactions.

Because of the integration of the primary mortgage market and the secondary mortgage market, the private mortgage lending is increasingly influenced by the macro-economical environment, such as the fluctuation of the interest rate. In the traditional bilateral or contractual approach, the interest rate is an endogenous variables which is determined by various factors, such as the riskiness of the borrower and the granting of collateral. They

[282] Thomas E. Plank, Proposed regulatory solution: Regulation and reform of the mortgage market and the nature of mortgage loans, Lessons from Fannie Mae and Freddie Mac, 60 SC.L Rev.779, spring, 2009.

together constitute an equation of loan. While the interest rate in the macro-economical analysis is an exogenous variable, it was usually determined by the policy of central banks of each state. For example, the lown interest rate environment during the past decade in U.S is determined by the Federal Reserve's monetary policy. So the assumption of traditional mortgage (or secured) lending model has potential conflicts with the economic reality, especially in the context that the traditional primary mortgage market has been greatly integrated with the secondary mortgage market. It is necessary to discuss the mortgage lending taking into consideration of the macroeconomic factors.

With particular reference to the amortizing mortgage lending, the amortization reduces the possibility of default through changing the way and amount of payment of principle and interest. It allows more families to purchase housing with a down-payment and a fixed monthly payment. And this amortization of mortgage loan is still advanced by the banks until now and is proved to be a successful way of increasing affordability of housing for the families, especially those of low- and medium-income, because the development of the long-term amortizing mortgage loan responded to the problems created by using short-term mortgage loans to finance long-term real estate. However, in order to fund these long-term assets, the mortgage originators must be able to get long-term finance through long-term liabilities. Unfortunately, this mismatch between short-term liability and long-term asset had not been very well eliminated. The mortgage loan originators, the savings and loan associations and commercial banks, predominantly employ the short-term family deposits to fund the long-term mortgage loans. This system is vulnerable to the increase of interest rate or other market conditions that would cause depositors - who were providing short-term financing- wo withdraw their deposits[283]. And this regime finally collapsed in the savings and loan associations crisis in the 1970’s and early 1980’s as a result of the serious inflation and higher market interest rates at that time.

For the purpose of resolving this mismatch problem and especially the interest rate risk, the securitization, both agency and GSEs sponsored and private-lable were employed to respond to the market crisis. In this way, the interest rate risk is shifted from the mortgage lenders to the MBS investors.

[283] Kenneth E. Scott, Never Again: The S&L Bailout Bill, 45 Bus. Law. P1883, 1885,1990.

4.2 Mortgage securitization, the death of secured lending and the credit risk control

With the proliferation of mortgage securitization, it has, to a great extent, replaced the secured lending as the primary funding source in U.S, especially for the financial institutions. This phenomena is entitled "The death of secured lending" [284]and has attracted a lot of attention from the scholars. In this part, we will introduce the transition form secured lending to securitization and concentrate on how to control the credit risk in mortgage securitization.

4.2.1 The transition from secured lending to securitization

During the past four decades, a notable phenomena is that mortgage securitization is increasingly employed as the financing source of the banks, in substitute of the family deposits.

4.2.1.1 The death of secured lending

Traditionally, secure lending is considered as a safe way to extend credit and secure the repayment at the moment due. However, the secured lending has been facing great threat from securitization in the past decades. Compared to the secured lending, the mortgage securitization saves the costs in two separate sources and thus the originators get benefits from this cost reduction. The first source is the conversion of unrated liquid receivables into highly liquid rated securities which can be exchanged in the capital market. So a large number of investors would buy these mortgage-backed securities, rather than advancing loan directly to the originator secured by these mortgage receivables. The great demand from the investors in the capital market help increase the market value of theses underlying receivables, and consequently the originator can charge a lower interest rate on these mortgage receivables. So

[284] See Edward J. Janger, The death of secured lending, 25 Cardozo L. Rev. 1759, April, 2004; see also Thomas E. Plank, The Security of Securitization and the Future of Security, 25 Cardozo L. Rev. 1655, April, 2004; Douglas G. Baird, Secured lending and its uncertain future, 25 Cardozo L. Rev. 1789, April, 2004.

the financing cost for the borrower and lender is also reduced.

The second source is deriving from the circumvention of the terrible provisions of the Bankruptcy Code on the secured lending which was described by David Carlson as “bankruptcy tax” on secured credit[285]. In this aspect, the securitization poses threat to both the secured lending and Bankruptcy Code. Specifically, this threat arises from two aspects. The first derives from the discriminating treatment before the bankruptcy code as a result of the differentiation between true sale and lien, because the "true sale" is out of the reach of the bankruptcy jurisdiction while the secured lending should be subject to the limitations imposed by the bankruptcy code. This is the so called "bankruptcy tax" we have analyzed in chapter three. It is notable, however, that whether to impose this bankruptcy tax is determined by the courts. The second threat derives from the recent development that some U.S states' legislation[286] attempts to abolish the characterization of "true sale" or "sale intended as security". In this part, we focus on this legislative development which constitutes the biggest threat to secured lending and provide an advantage to Wall street-style structured finance at the expense of Main street-style secured lending.

Under the Delaware Asset Securitization Facilitation Act (ASFA), "notwithstanding any other provision of law ... any property, assets or rights purported to be transferred, in whole or in part, in [a] securitization transaction shall be deemed to no longer be the property, assets or rights of the transferor". So any transaction, which purports to transfer assets , whether intended as a sale or a security interest, will be effective to transfer ownership. The purpose or effect of this statutory "true sale" is to exclude the securitized assets from the Bankruptcy estate, and consequently to allow the originator and the MBS investors to opt-out the regulation by the bankruptcy code, and more importantly, to opt-out of the regulatory components of Article 9 and the law of mortgages so as to circumvent the public notice filing and registration requirements. At the same time, the wording "any property, assets or rights " signifies that they can substitute any type of secured loan. Given the same conditions, the

[285] Thomas E.Plank, SYMPOSIUM: Threats to Secured Lending and Asset Securitization: Panel 1: Asset Securitization and Secured Lending: The security of securitization and the future of security. 25 Cardozo L.Rev. 1655, April 2004.

[286] Alabama, Delaware, Louisiana, Ohio, North Carolina, South Dakota, and Texas have recently adopted this kind of gerrymander state property law to provide a safe harbor for securitization transactions. See Edward J. Janger, The death of secured lending, 25 Cardozo L. Rev. 1759, April, 2004.

lender and borrower prefer the securitization to the secured lending. One important evidence is that the predominant holders of mortgage loans have become the Fannie Mae, Freddie Mac and the issuers of private mortgage-backed securities, no longer the savings institutions. From 1958 to 1979, savings institutions held more than 50% of all single-family mortgage loans. Thereafter, the share held by savings institutions declined significantly, and as of the end of 2006, savings institutions held only 7.8% of all first-lien single-family mortgage loans. In contrast, the share of GSEs and the issuers of private-label securitization of the first-lien single-family mortgage loans have respectively risen up to 44.4% and 22.7% as the end of 2006[287].

This securitization statutes have overruled the traditional regulatory regime under UCC-9. Under the "true sale" doctrine, most of the courts treat a transaction as a true sale only if the risks and benefits of ownership have been transferred to the purchaser. The courts usually look to the "substantial" or "true" intention as manifested in the deal, rather than the pure stated intention written in the documents. The court system thus plays a role of market regulation for the financing activities. However, the Delaware ASFA strips the courts of this regulatory power to re-characterize the underlying transactions. Thus the traditional secured lending has been substituted both at the level of legislation and court justice.

It is also notable that the usage of securitization is limited to the extent that the market participants own the expertise and economic scale to carry out the securitization transactions. That is because the securitization is very expensive to construct and there is only economic for transactions of significant size. Thus the larger enterprises are favored over the smaller ones. Those, who can not afford the costs of securitization, would have to choose to raise money through the secured lending. So we find that the secured lending still thrives even though the securitization has engendered institutional threats to it. However, as a result of the integration of the primary mortgage market and secondary mortgage market, the development of mortgage securitization indeed changes the way that the traditional mortgage lending functions, especially its role on the credit risk control.

4.2.1.2 The changes of secured lending as a result of mortgage securitization:

[287] Thomas E. Plank, Proposed regulatory solution: Regulation and reform of the mortgage market and the nature of mortgage loans, Lessons from Fannie Mae and Freddie Mac, 60 SC.L Rev.779, spring, 2009.

The necessity of a new analysis approach

As the proliferation of mortgage securitization and the development of secondary mortgage market, mortgage functions not only in the traditional loan contract, but also in the capital market involving more participants. It is not appropriate to analyze mortgage in the traditional approach and it requires a new methodology to guide our analysis taking into consideration of the changes of mortgage lending. Here it is necessary to describe the relationship between the traditional mortgage lending and mortgage securitization which operates in different markets. Mortgage lending occurs in the primary mortgage market and produces the mortgage loans which will be securitized in the secondary mortgage market, while mortgage securitization is the most important component of secondary mortgage market. It could be said that the mortgage lending provides the "raw materials" for mortgage securitization. At the same time, the analysis of mortgage lending is usually in the microeconomic level, while the mortgage securitization interplays with the macroeconomic environment. The financial crisis since 2008 demonstrates that the primary market and secondary market influence each other in their development. To a certain extent, the primary mortgage market and the secondary mortgage market have been integrated. The experience in U.S. Shows this interrelationship clearly.

Because of the proliferation of mortgage securitization, the mortgage transactions have been restructured and construed differently.

Firstly, the mortgage lending is on longer a traditional bilateral transaction, but a multilateral transaction involving more intermediatory participants. This phenomena began since the Great Depression, because of the federal government sponsorship and oversight of the federal government, the mortgage finance was characterized by a three-party model: a borrower, a lender, and some government affiliated institution that purchases, insures, or in some way exercises some underwriting oversight in the capitalization of the loan[288]. The federal government's intervention in the mortgage market have stabilized the marketplace and created high standards of safety and soundness. Since the 1970's, the mortgage finance has become a transaction involving more than 3 parties, mainly due to the proliferation of

[288] Christopher L. Peterson, Subprime Mortgage Market Turmoil: Examining the Role of Securitization –A hearing before the U.S. Senate Committee on Banking, Housing, and Urban Affairs, Subcommittee on Securities, Insurance, and Investment, April 17, 2007, University of Florida.

private-label securitization. Unlike the two and three party mortgage finance models, the private label securitization model of mortgage finance has more than 5 different participants that all play an independent role in originating, pooling, structuring, and servicing mortgage loans. In a typical mortgage lending, the banks do not originate the loans by itself, usually the mortgage brokers identify potential borrowers and provide various loan products to the families which are planing to purchase a new house or do some improvement to their house. For the determination of the interest rate, the riskiness of the borrower, the broker and originator usually rely on the information about past credit performance offered by consumer credit reporting agencies and the credit score given by Fair Issacson & Co., a firm that specializes in evaluating consumer repayment. Once the loan was extended, it was transferred to a subsidiary of an investment banking firm which is called the securitization sponsor, or seller, then transfers the loans into a pool of loans, namely the SPV. The seller sometimes sells the rights to service the loan pool to a company, namely the servicer, which will correspond with consumers, receive monthly payments, monitor collateral, and when necessary foreclose on homes. The issuance of MBS needs an underwriter who purchases all the "securities" issued and backed by the pool, and then sells securities to a variety of investors with different portfolio needs. In order to get a higher liquidity on the capital market, the underwriter employs credit rating agencies to issue a rating to each tranche of the pool on which the investors rely. Usually a insurance is required for the credit enhancement so as to assign some tranches higher investment ratings. All these participants, including broker, originator, sponsor and seller, SPV, servicer, underwriter, rating agencies, and insurer, work together and are closely connected. The traditional bilateral approach of analysis does not take into consideration of the interests and incentives of these intermediate participants. The involvement of more participants in the transaction requires a multilateral approach of analysis of the role of mortgage in mortgage finance practices.

Secondly, the focus of the mortgage relationship has been shifted from the collateral (land, building and so on) to the debt in the mortgage transactions[289] or the projected cash flow from the underlying loan. Securitization converts the illiquid real estate into highly liquid securities in the capital market, they should concentrate to assure the liquidity of securities

[289] Ann M. Burkhart, Lenders and Land, 64 Mo. L. Rev. 249, Spring, 1999.

which is determined by the cash flow from the repayment of mortgage loans. The mortgaged real estate only secure the repayment of mortgage loan in the event of the borrowers' insolvency, and during the housing bubble the MBS investors did not care where they are located, who are the mortgagors, how is the credit history of the specific mortgagor. So the mortgagees and MBS investors' relationship with the mortgaged real estate declined.

Accompanying with the shift of the focus, the personal character of the relationship between lender and borrower has also been shattered by the development of the secondary mortgage market and the mortgage-based financial innovation. Prior to the development of the secondary mortgage market, residential mortgage lending is marked by proximity[290]. The lenders always evaluate the credit quality of the borrower, and this evaluation is more subjective using the lenders' knowledge and experience. The more prestigious the debtor is, the easier for them to get the loan they need. However, the development of secondary market produces greater demand for mortgage loans which requires a more standard and objective evaluation system. In U.S, the *Automated underwriting* (AU) is employed to undertake this objective evaluation system, by which the personal reputation of the debtor is neglected, the information about the mortgaged housing becomes irrelevant.[291] At the same time, in order to enhance the liquidity of the MBS, the credit rating from rating agencies are increasingly relied on, while the rating agencies are more concerned with the mortgage pool’s projected cash flow, and less with the quality of the mortgaged land. The secondary market has caused mortgage holders to become more remote and unfamiliar to the mortgaged land. The purchasers of mortgage-backed securities in the secondary market have no contact with the land on which the mortgages exist. More important to them are the borrowers’ creditworthiness and the property’s stream of income. The MBS allows the individuals who do not own the real estate investing expertise to become mortgage securities investor. The investors do not have to conduct the necessary property valuation. The investors’

[290] James Charles Smith, Symposium: Law and the financial crisis: Economic regulation during turbulent times: The structural causes of mortgage fraud, 60 Syracuse L. Rev. 473, 2010.

[291] Automated underwriting (AU) speeds up loan application process and assessment, as well as cuts origination fees in the hundreds. Freddie Mac's Loan Prospector and Fannie Mae's Desktop Underwriter are the most commonly used automatic underwriting software packages. The advantage of AU is that it requires less documentation, speeds up the closing of loans, cuts greatly the costs, and avoids the personal prejudice. However, the evaluation of the credit quality of borrower becomes more or uniquely relied on the credit score of the borrower, the factual ability of some borrowers to repay the loan has often been overestimated and they soon default. So the AU system is inclined to extend credit to unqualifying borrowers.

unfamiliarity with the mortgaged lands and buildings can be mostly illustrated by the popularity of American mortgage securities with the foreign investors, especially those from the Emerging countries such as China and India.

Thirdly, mortgage is increasingly viewed as an investment instrument in the capital market, not only a personal relationship between borrower and lender. Because of the establishment of secondary market, mortgage itself has been paid less attention. As a commentator has observed, "The secondary market is like a great food processor. What goes in comes out unrecognizable to borrowers and lenders, but looks appetizing to investors"[292]. This becomes possible for the fact that there are new intermediate agencies involving the mortgage-based transactions, such as the credit rating agency which is specialized in evaluating and rating the quality of the mortgages.

However, once the mortgage itself becomes a commodity in the capital market, its quality or the repayment of the security debt should also be secured by some other assets or credit enhancement mechanisms, such as the FHA and VA federal guaranty, GSEs implicit guaranty, credit insurance, and credit rating, so as to enhance the liquidity of the mortgage securities and boost the confidence of investors. Credit ratings play a pivotal role for the development of the commercial mortgage securities. Rather than relying on personal evaluations, the investors of mortgage securities prefer to rely on credit ratings. However, the investors even rarely examine the appraisal report about the quality of underlying assets from the credit rating agencies. The function of the mortgage has been enhanced or replaced by the appraisal of the credit rating agencies. By doing so, the mortgage is no longer a collateral, but an asset which needs guaranty from other collateral.

4.2.2 The weakening role of mortgage in securitization and the credit risk control

As we discussed in chapter Ⅱ, prior to the creation of the secondary mortgage market and the proliferation of securitization in U.S, the mortgage market had been a localized one and was

[292] Ann M. Burkhart, Lenders and Land, 64 Mo. L. Rev. 249, Spring, 1999.

characterized by the proximity between the lenders and borrowers. At the same time, the history of mortgage's evolution reveals that the relationship between the mortgagee and the land (later the housing) becomes more remote[293]. Following the creation of secondary market and its further development since the 1970’s, the mortgage market experienced three fundamental transformations: (1) the once localized mortgage markets in U.S were integrated into a national and finally a international capital market; (2) the traditional two-party mortgage transaction was replaced by a multiple-party one as a result of the intervention of the third intermediary agencies in the process of mortgage transaction, such as mortgage brokers, rating agencies, appraisers, servicers; and consequently (3) the financial incentives effective to the borrowers and lenders under the traditional regime are less compatible to this new multiple-party mortgage transaction, and this created a distorting incentive mechanism for the participants and caused the irresponsible lending practices. These changes further weakens the role of mortgage in credit risk control.

One commentator stated that the common thread that links together a number of development in modern lending practices is distance between the lender (or purchasing investor) and the underlying assets. The above-mentioned changes can be explained by various distances between the lenders and borrowers, geographical, transactional and financial, and these distances own profound impact on the risk control in the mortgage industry. This "Distance theory" is developed by Professor James Charles Smith who used it to explain the fraud in modern mortgage market.

1) Geographical distance. Prior to the development of secondary mortgage market in the 1970's, mortgage lending in the nature was heavily localized, and the participants of mortgage transactions were usually the residents where the mortgage loans were advanced. At the same time, the existing regulatory regime at that time also prohibited the interstate banking, and thus the institutional lenders had stable access of capital from the community where they were located.

[293] As professor Ann M. Burkhart has argued, the evolution of both England mortgage law and American mortgage law followed the same course in this aspect. The adoption of the equity of redemption, the dominance of the lien theory over title theory of mortgage, the virtual abolition of strict foreclosure and the imposition of more legal burdens, have together contributed to shift in emphasis from the land to the debt in mortgage transactions. See Ann M. Burkhart, Lenders and Land, 64 Mo. L. Rev. 249, Spring, 1999. Here we just discuss such impact from the secondary mortgage market whose explosive development has shattered the personal character of the relationship between the lender and borrower.

This locally-based home lending, engendering proximity between residential mortgage borrowers and lenders, lasted until the late 1970's[294]. Following the nationalization and internationalization of the major industries, the real estate began its market integration since then, the sale of home mortgage loans, through pooling and securitization, became nationalized and later internationalized. Local mortgage loan origination followed by immediate sale in the secondary mortgage market creates geographical distance between borrowers and lenders[295]. Because the owners of the mortgage loans are no longer the local institutional originators, the real owners are investors from the other communities, states, and even foreign counties. Within 40 years' time, the residential mortgage market has witnessed a radical transformation from highly localized markets to a highly integrated national and international market.

However, this geographical distance between the lenders and borrowers increased substantially the risks. *Firstly*, the current lenders typically have no direct contact with and thus no personal information about the borrowers. They only get a record prepared by a third party, including the name, the social security number, job description which are considered to indicate the will and ability to borrowers' repayment of the mortgage loan. And they own no individualized information about the borrowers. At the same time, the advance of information technology makes the automatic underwriting popular in the loan origination, and the mortgage industry are relying more heavily on automated systems for their underwriting and decisioning functions. Applicant can enter their personal data on website. The software of the automated underwriting will process the information, run financial checks and evaluate the application according to criteria specified by lender. Automated underwriting (AU) speeds up loan application process and assessment, as well as cuts origination fees in the hundreds. However, this automated underwriting excludes the application of personal experience in the evaluation process. *Secondly*, the current lenders typically own no direct information with respect to the collateral. Because of the secondary market, the true owner of the mortgage loans -- the public investors – do not own direct personal information about the quality of the

[294] James Charles Smith, Economic regulation during turbulent times: The structure causes of mortgage fraud, 60 Syracuse L. Rev. 473, 2010.
[295] James Charles Smith, Economic regulation during turbulent times: The structure causes of mortgage fraud, 60 Syracuse L. Rev. 473, 2010.

collateral, the houses. Consequently, the true market value of the collateral is possibly inflated to a gross extent.

2) Transactional distance

The traditional mortgage lending is characterized by the “transactional proximity”, which means that the borrower and lender deal with each other directly with respect to the loan transaction. Typically the two parties have face-to-face contact. The above-discussed geographical proximity of the traditional mortgage market fits very well with the transactional proximity. Because of the geographical proximity, the direct transactional contact is very convenient. Since the perception and development of secondary mortgage market in the 1970’s, the transactional distance between the lenders and borrowers became the new norm because of the intervention of third parties, including mortgage brokers, real estate appraisers, servicers, rating agencies and so on. The mortgage loan originations in the past four decades have been involved the above parties and the borrowers and lenders have less direct contact for the reason of the intermediaries’ isolation and separation functions. For example, brokerage began to be applied in the residential mortgage since the 1980’s and mortgage brokers arranged for 45% of all U.S residential mortgage loans as of 2006[296]. With respect to the closing of mortgage loan, the lenders who often directly participated in the loan closings and approved all documentations are replaced by intermediaries, such as a title company or attorney, to close the loan, following the loan instructions specified by the institutional lenders.

3) Financial distance

Under the older mortgage loan practices, the mortgage lenders typically hold the loan until maturity or the refinance of the loan. Both the lenders and borrowers have long-term substantial interests in the mortgage loans: the realization of the lenders’ interest relied on the borrowers’ performance of the loan in stallments, while the borrowers’ equity in the mortgage property increased as the monthly payment of principles and interests.

Due to the securitization in the secondary market, the originating lenders retain less or no stake in the loans they advanced. They sold their loans in the secondary market and get the

[296] James Charles Smith, Economic regulation during turbulent times: The structure causes of mortgage fraud, 60 Syracuse L. Rev. 473, 2010.

new capital by which fund the new mortgage loans. So the lenders have less incentive to care about the borrowers' quality and the value of houses as collateral, because they will bear no loss if the borrowers went into default as a result of the true sale discussed above.

And this has resulted in the loosening criteria for loan grant: firstly, the requirement for the documentation of the borrowers has been weakened. The documents collected provide historical and current information about the income and assets of the borrower. The level of documentation can be classified into full, limited or no documentation. Borrowers with full documentation provide verification of income as well as assets[297]. Traditionally the borrowers should provide full-documentation while the "No-documentation" will be rejected. The full documentation market grew by 445% from 2001 to 2005, while the number of low documentation loans grew by 972%. Secondly, the loan-to-value ratio has declined. For many years, a 20 percent down payment was considered standard, and regarded as some evidence of the borrowers' financial soundness. But at the height of the housing boom, these standards were abandoned. Lenders were churning out mortgages that required little or no down payment, knowing they could pass that increased risk to investors.

At the same time, the other third participants in the securitization also have no incentives to take responsible measures to control the risk. For example, today in most developed mortgage markets (especially in Canada, the U.S., the UK, Australia, New Zealand and Spain) mortgage brokers are the largest sellers of mortgage products for lenders. The mortgage brokers, servicers[298], insurer and rating agencies[299] just want to get more income from increasing

297 Benjamin J. Keys, Tanmoy Mukherjee, Amit Seru, Vikrant Vig, Did Securitization Lead to Lax Screening? Evidence From Subprime Loans, Working paper, P7, 2008.

298 The servicers are criticized to have prevented the Mortgage Modification during the past financial crisis in U.S..

A criticism against securitization in the wake of the financial crisis is that it inhibits modification of the underlying mortgage loans for troubled borrowers because of restrictions contained in agreements with loan servicers or because alterations require consent from diffuse MBS holders. Under the servicing agreements, servicers render services in the "best interests" of MBS holders, and it is sometimes forbidden to alter the terms of loans, or they were imposed limits on the number of loans modifications for a given asset pool or for a given loan over its lifetime, maximization of the net present value of cash flows the requirement of consent from outside parties such as bond insurers, rating agencies, and credit enhancement providers before altering more than five percent of the loans in a mortgage pool. See Kurt Eggert, Comment on Michael A. Stegman et al.'s "Preventive Servicing Is Good for Business and Affordable Homeownership Policy": What Prevents Loan Modifications?, 18 HOUSING POL'Y DEB. 279, 287-88, 2007.

At the same time, empirical studies reveal that, even in the face of enormous government pressure to adjust mortgage terms for the benefit of homeowners, actual mortgage restructuring lags behind expectations, in part due to the structural complications of securitization. See Alan M. White, Deleveraging the American Homeowner: The Failure of 2008 Voluntary Mortgage Contract Modifications, 41 CONN. L. REV. 1107, 2008-2009, and Alan M. White, Rewriting Contracts, Wholesale: Data on Voluntary Mortgage Modifications from 2007and 2008 Remittance Reports, 36 FORDHAM URB. L.J. 509, 2009.

299 Because of the large number of mortgage loans in the pools backing residential mortgage securities, rating

origination and the subsequent securitization of mortgage loans. So more origination and securitization of mortgage loans means more profits for them and the impulse of pursuing more profit encourages them to take irresponsible acts in the mortgage transaction.

In fact, securitization in the secondary mortgage market imposes also no incentives on the investors for the risk control and no investor cares about the investment risk. Because so many investors share interests in the mortgage-backed securities or mortgage pool, there occurs a classic commons problem: the percentage of purchasers' interest in the targeted mortgage pool is so diluted that they have no incentive to take all necessary measures to protect its property rights. As one commentator has said, a prime value of mortgage securitization is that from the investor's perspective, risk is diluted[300]. The risks can be hedged through the distribution of them among many investors, so the impact of any one borrower's default could be ignorable. However, the dilution of the percentage of beneficial interest in the pool of mortgage loans and consequently the hedge of investment risks also reduces the incentives that the investors have with respect to controlling the performance of all loans and, interventions to protect their interests if the loan becomes default. So the decentralization of risk results in no lender or investor having a meaningful long-term interest in a specific loan.

The financial distance among the mortgage participants, is now the defining feature of modern mortgage transactions[301]. The disastrous consequence is that no participant conducts responsible activities to control the risk in mortgage transactions, and even worse they abuse their market power to pursue more profits.

agencies evaluate credit risk based on a statistical analysis of the cash flow generated by the pool, rather than the market value of the collateral or the issuer's own unsecured rating. Indeed, many issuers found asset securitization attractive because the credit rating that could be achieved for a security issued in a securitization transaction was often higher than the rating for the long-term unsecured debt of the ultimate issuer or sponsor of the security. See Joseph Shenker & Anthony Coletta, Asset Securitization: Evolution, Current Issues and New Frontiers, 69 Tex. L. Rev. P369, 1372, 1991.

300 James Charles Smith, Economic regulation during turbulent times: The structure causes of mortgage fraud, 60 Syracuse L. Rev. 473, 2010.

301 James Charles Smith, Economic regulation during turbulent times: The structure causes of mortgage fraud, 60 Syracuse L. Rev. 473, 2010.

4.3 The credit risk control of MBS: Efficient legislation and market self-regulation

One of the advantages of mortgage securitization is its risk alteration, shifting the credit risk from the lender-originator to the MBS investors and the un-adjusting creditors of the lender-originator. However, we should also acknowledge that the credit risk of the underlying assets has not been eliminated or mitigated, and it still exist. At the same time, the diversification of credit risk through securitization to a certain extent has also diversified the effect of the debtors' default, as a result of the interaction of multiple factors, such as the high-leverage operation, the loosened standard of underwriting and the wide use of financial derivatives for risk aversion and speculation. The past experience since 2007 has confirmed this statement, as the defaults in several states such as California and Florida have caused the sub-prime crisis in U.S., and later was spread to the other economy bodies. So the securitization owns the characteristic of both risk diversification and risk diffusion. For this reason, it needs to develop some mechanisms for the credit risk control of the underlying assets for securitization and also the systemic risk caused by its risk diffusion.

In fact, the securitizing industry has developed some internal mechanisms for the credit risk control of the securitized mortgage loans, and they will be firstly discussed so as to get a comprehensive understanding to the credit risk control in mortgage securitization. Later, the discussion will focus on the specific rules established by the securitization-related legislation so as to reveal how to eliminate or mitigate the systemic risk in securitization and thus lay a robust foundation for the future healthy development of securitization.

4.3.1 The credit risk control under the originate-to-diversify mortgage securitization

"Most securitization structures employ one or more forms of internal or external enhancement in order to reduce security holders' exposure to credit risk."[302] Enhancement or support can come from the reconstruction of the assets themselves or from an external source. The credit within the structure employed to control the risk include the subordinate structure or tranches; Over-collateralization of asset pools, and excess spread.

The most basic and the most natural form of credit enhancement for any pool is the level of excess spread inherent in the transaction[303]. Excess spread is the difference between the weighted average net interest rate on the receivables and the weighted average rate at which interest accrues on the securities. The later is in fact the average funding cost of the securitization transaction. The receivables are usually transferred at part to the SPV, while the average funding costs are lower than the interest rate of the transferred loans, and thus the excess spread is produced.

An important feature of securitization is that securities are usually subordinated or "tranched"[304]. Recognizing that investors have varying time horizons and risk tolerances, issuers of mortgage-backed securities have created debt instruments with multiple classes, or "tranches," with varying maturities and payment streams that are vastly different from the underlying mortgage pool[305]. For example, the MBS are usually divided into triple A, B and C securities, while class C is the first-loss class which is the first class to suffer losses if the losses exceed the excess spread. As a result of this pre-fixed tranches, the order of payment to different groups of investors is thus pre-determined. The investors of senior tranches are paid first, followed by those of the Mezzanine tranches, and the investors of junior tranches are paid the last. The junior tranches are usually held by the originators and suffer the losses from the default of mortgage debtors in the first place. And in this sense the junior tranches are called "equity" of the originator in the SPV[306]. In order to compensate the higher risk of the lower tranches, they are entitled a higher interest rate payment. So the "equity" tranches

302 Faten Sabry & Chudozie Okongwu, Study of the Impact of Securitization on Consumers, Investors, Financial Institutions and the Capital Markets, NERA Econ. Consulting, Available at http://www.americansecuritization.com/uploadedFiles/ASF_NERA_Report.pdf.

303 Frank J.Fabozzi and Vinod Kothari, Securitization: The tool of financial transformation, Yale ICF Working Paper No. 0707, P7, available at: http://ssrn.com/abstract=997079.

304 Louise Gullifer and Jennifer Payne, Corporate Finance Law: Principles and Policy, P403, Hart Publishing, 2011.

305 John W. Uhlein, Breakdown in the mortgage securitization: Multiple causes and suggestions for reform, 60 Syracuse L. Rev. 503, 2010.

306 In this sense, these junior tranches function like the legal capital of a limited company which can be used to provide fund to pay creditors in event of insolvency. So when a company falls into insolvency, the shareholders will be paid in the last, in case that there are some residual assets left.

holders can be paid the highest interest rate. Besides, they are also entitled to collect and hold any surplus after all the debt due on the securities has been paid[307].

In some cases, the Over-collateralization is created to absorb the expected losses. For example, the SPV issued 100 million MBS, while the assets pool backing the MBS is worth 110 million. The residual 10 million assets constitute over-collateralization. It has a similar impact with that of the subordination.

However, the effect of credit risk control of these mechanisms has unfortunately been offset by originate-to-diversify model of securitization. Prior to 1980, the vast majority of all home mortgage loans were made by savings and loan associations, namely the theft. These institutions originated, serviced and held mortgage loans in their portfolios, in what is widely referred to as an originate-to-hold model. Then, as early as 1970, the model began to change as single institutions no longer provided all three functions. Home mortgage loans were increasingly securitized (i.e., put into pools and packaged into securities backed by the individual loans) which is referred to as the originate-to-distribute model by the securitization. In the traditional banking, the banks originated loans by attracting deposits from the households, so a decline in deposit supply will reduce the loan supply. Securitization has changed the model of banking and caused the "disintermediation" of banking. Loans become more liquid because banks often securitize them, replacing deposits with bonds as a main source of finance. The capital market provides a substitute source of funding to finance the origination of mortgage loans in the primary market through securitization and at the same time the credit risk of the banks is transferred to the capital market.

The subordination, over-collateralization and excess spread can only work for risk control after the securitized assets were transferred to the SPV. They can not impose any influence on the assets quality before the transfer. Although the financial crisis occurred in the market for MBS, the problems derived from the primary market. These mechanisms can only work in the secondary market and the MBS market, while they can not affect the primary mortgage lending market and thus create serious problems of moral hazard which is widespread in the

[307] The originators' holding of "equity" tranches can help them avoid the characterization of the transaction as a secured lending, because they bear no credit risk of mortgage loans, they just bear the risk from the mortgage-backed securities of junior tranches. This arrangement in law is one of the techniques used to achieve the "true sale" and "bankruptcy isolation". See also Louise Gullifer and Jennifer Payne, Corporate Finance Law: Principles and Policy, P405, Hart Publishing, 2011.

whole chain of mortgage securitization, and thus causes a systemic incentive problem in the funding and loan management chains, incentives driving households' repayment and default decisions under the personal bankruptcy framework, and incentives for loan servicers and investors to choose foreclosure over loan modification[308]. Regarding to the mortgage lending, securitization does not offer the proper incentives for effective mortgage underwriting[309]. Because the originators usually sold their loans directly through securitization or to investment banks which are specialized in securitizing mortgage loans for the capital markets, they lacked enough incentive to carefully screen the credit status of mortgage borrowers, but did have an incentive to produce as many saleable loans for secondary markets as possible so as to produce more profits. The originators screen the mortgage lending only to the extent necessary to make mortgages marketable on the secondary market[310]. Moreover, the mortgage purchasers in secondary market value more the "hard" underwriting than the individualized "soft" information which often falls out of practice[311]. It further makes the situation worse that the underwriting standard has been greatly loosened for the reason of the banks' impulse to advance more mortgage loans during the housing boom in U.S since 2000. Ameliorating these incentive problems should be a central component of any post-crisis strategy to better manage credit risk and set future financial sector growth on a stable footing.

The mortgage loan securitization fosters financial integration and investor diversification[312]. Integration allows capital to flow between the credit markets and the capital markets, dampening the consequences of shocks to local banks and other lenders. For example the recent home price drop in the US spread rapidly across the financial system. Diversification facilitates risk sharing and risk management, but at the same time it weakens the incentives for investors to engage in proper due diligence and credit evaluation.

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308 Jay Surti, Can Covered Bonds Resuscitate Residential Mortgage Finance in the United States? IMF Working Paper, December 2010, P3.

309 For contrary view on moral hazard and securitization, see Future of Securitization, (arguing that other factors contributed to atrophied underwriting standards such as excess liquidity and conflicts of interest within firms responsible for underwriting).

310 Kurt Eggert, The Great Collapse: How Securitization Caused the Subprime Meltdown, 41 CONN. L. REV. 1257, P 1277, 2009.

311 Because of the technology improvement and the application of automatic underwriting, the originators were reluctant to collect and prove soft information on the borrowers' repayment capacity, relying exclusively on hard information presented in the automatic underwriting system.

312 Elena Loutskina and Philip E. Strahan, Securitization and the declining impact of bank finance on loan supply: evidence from mortgage originations, The Journal of Finance, Vol. LⅥⅤ, No. 2, April 2009, P 887

4.3.2 Is the market self-regulation in MBS market possible?

As Prof. Malloy has stated, most modern markets of major significance, tend to be formal and are the institutional product of human action. In particular, housing and mortgage markets are formal institutional frameworks that rely on legal infrastructure to facilitate long distance and impersonal exchange networks of trade and exchange[313]. When discussing the causes of the financial crisis since 2007, the government deregulation was always cited as the most important excuse. Many scholars maintained that the mortgage markets has lost their ability of self-correcting, and made suggestions to develop volitional and purposeful regulation of housing and mortgage markets[314]. Is this kind of assertion true or false? In my opinion, it is not a simple choice among the theories of different economy schools, such as those from Chicago school and the Keynesianism, it needs further examination with specific study on certain markets and sectors.

4.3.2.1 A general discussion

In the first place, as a formal modern market, the creation of mortgage market could be attributed as the result of the Government's institution-building, and this has been evidenced by the inception of the Prussia mortgage banking and the U.S secondary mortgage market since the Great Depression. So the creation of secondary mortgage market is the produt of human design, not evolution. However, at the starting point, the governments had established some rules for the risk control according to the then existing human experiences, which were considered as prerequisites and inherent requirement for the survival and further development of the market. If these rules were followed strictly by the market and the participants, the market will regulate itself and keep long-term stability. The Germany Pfandbrief market is a good example in this sense. For example, the loan-to-value ratio is usually at about 60%[315].

313 Robin Paul Malloy，Flawed Economic Assumptions: Critical Perspectives: Mortgage Market Reform and the Fallacy of Self-Correcting Markets,30 Pace L. Rev. 79, Fall, 2009, P82.

314 See Brooksley Born, Deregulation: A Major Cause of the Financial Crisis, 5 Harv. L. & Pol'y Rev. 231, Summer, 2011; Robin Paul Malloy，Flawed Economic Assumptions: Critical Perspectives: Mortgage Market Reform and the Fallacy of Self-Correcting Markets,30 Pace L. Rev. 79, Fall, 2009.

315 See article 14 of Germany Pfandbrief Act 2005, "Mortgages may be used as cover only up to the first 60 percent of the value of the property (mortgage lending value) established by the Pfandbrief bank on the basis of a

That is why there occurred no mortgage meltdown in the past two centuries in Germany. In contrast, the securitization standard in the past 4 decades has been greatly loosened, and the securitized mortgage loans were extended from conforming loans, to conventional loans, and finally to non-conventional loans, including sub-prime ones. During the process of this expansion, the financial risk could not burst immediately, but accumulated gradually. Since the introduction of sub-prime mortgage securitization in the 1990's, the mortgage market collapsed just within a decade. The foundamental reason is that the mortgage market in U.S abandoned the self-regulation bending to the industry's profit-maximizing desire.

Here, we could find two distinct thinking model with respect to the market development. The civil law systems follows a deductive thinking - "to making plans, to regulating things in advance, ... to drawing up rules and systematizing them.[316]" The only potential risk is that these rules do not reflect the true requirement of the mortgage market regarding to its healthy and sustainable development. In contrast, the common law system follows the "Try Out Method", whereby the market is encouraged to expand until the tolerance boundary. However, this boundary is unknown or very difficult to predict in advance. In this sense, the unlimited expansion of the market is very dangerous and the consequence will be disastrous. So the statutory mortgage securitization is more appropriate for the market self-regulation.

With respect to the relationship between public regulation and the market self-regulation, the experience of the Germany Pfandbrief show us a very interersting phneomena. The public regulation mainly refers to the license to the credit institutions, the trasparency provisions and the statutoty bankruptcy isolation. While the provisions about mortgage lending limit, asset evaluation, risk management, and cover pool recording are implemented by the pfandbrief banks. Although these provisions are imposed by the act and regulated by the Authority, they are mainly undertaken by the pfandbrief banks for the benefits of themselves. Withouth thses provisions, the mortgage market will fall into chaos as what has happened in the U.S mortgage market as a result of the unlimited expansion.

With particular reference to the MBS market, once it has been created and developed, it

valuation in accordance with § 16".

316 Konrad Zweigert & Hein Kotz, Introduction to Comparative Law 70 (Tony Weir trans., 3d ed. 1998) (1977), cited from Mark J. Roe, Legal origins, politics and modern stock markets, 120 Harv. L. Rev. 460, December, 2006, P470.

shall follow its own rules of development, and the development of it, to a great extent, relies on its capacity of self-regulation and self correcting under the legal regime based on which it was initially created. The regulatory authority does not own the capacity to control each individual transaction in the marketplace. The past sub-prime crisis demonstrated that the development of the mortgage securitization has been out of the control of the federal government as a result of the wrong police incentives granted by the federal government.

At the same time, once the market has been established, it must follow some fundamental rules which are vital for the healthy development of the market and could not be violated, otherwise the market will fall into turmoil and ultimately into financial meltdown. Moreover, these rules should be respected by the federal government policies and regulatory authorities. For the stability of the housing and mortgage market, these rules include "avoiding secret mortgages so as to keep transparency; the equity of market participants before law, particularly the bankruptcy law which is fatal for the mortgage securitization and the financial contracts; the substance dominates form; the fiduciary duty of market participants to the stakeholders in the market; ...". According our research in Chapter 3, we find that the "race-to-bottom" legislation has undermined the legal regime which constitutes the prerequisites for the healthy and continuous development and for the self-regulation of mortgage securitization industry, and thus jeopardize the restoration or self-correcting capacity of the mortgage market. At the same time, the provisions regarding to the cover pool recording, mortgage lending limite and evaluation of property also contitute the fundamental rules to be repsected by the market participants. These fundamental rules may be provided in the form of public regulation, but they are of private self-regulation in their own nature.

So the public regulation is necessary, while the most fundamental way is to reform the legislation referring to self-regulation of the housing and mortgage market and thus to keep the risk under the market tolarance.

4.3.2.2 Why the market-self regulation in the U.S mortgage market failed?

As we have demonstrated in chapter 2, the housing and mortgage markets have been and continue to be supported by the federal programs and other government interventions to achieve desirable economic efficiency and to implement the government's housing policy at the same time. These efforts have indeed produced many positive results, including the lowering cost of mortgage borrowing, the rise of homeownership, the reduction of risk and enhanced liquidity for the primary mortgage market lenders, and increasing investment opportunities for the investors. We must admit that the government created and developed the secondary mortgage market, and still play an very important role in the modern housing market and mortgage markets.

However, we should also notify that the majority of the MBS are not those issued by the GSEs or Agency securities, rather the private-label mortgage securitization. The private-label securitization has experienced a fast growth since the 1990's, and has dominated the secondary mortgage market since the 2000. For example, the issuance of agency and GSEs security in 1984 was \$8.8 billion, and the issuance of MBS at the same year was \$11 billion. In 2007, the issuance of MBS had reached up to \$2936.7 billion, while issuance of the agency and GSEs security only had a volume of \$380.9 billion[317]. So the direct involvement of the federal government in MBS market is limited, especially in the flourishing period. In this sense, the role of federal government in the MBS markets has been weakened.

More complicate is that the current housing finance system is composed by three sub-markets: the primary mortgage lending market, the secondary mortgage market and the market for MBS. These markets share different characteristics with respect to the credit risk control and will respond differently to the government intervention.

Regarding to the primary mortgage market, the lender will advance the loan and hold it in its portfolio until maturity under the traditional bilateral credit relationship between lenders and borrowers. For the safety of the loan, the lender would carefully evaluate the riskiness of the borrower and avoid potential losses as much as possible, otherwise the lender would bear the losses. This credit control behavior in the microeconomic sense has a positive impact on the financial stability in the macroeconomic sense. As the mortgage market develops in depth, the creation and development of secondary mortgage market creates the opportunities for the primary lenders to sell their mortgages in portfolio. The federal agencies, GSEs, private

[317] See Flow of Funds Accounts of the United States, Annual Flows and Outstandings, 1984-2010. Available at: http://www.federalreserve.gov/releases/z1/current/data.htm.

investment banks function as secondary mortgage market intermediaries. Their business covers the purchase and sale of loans and loan participations, packaging loans into pools for securitization, issuing MBS and selling them into the financial markets. The secondary mortgage market not only creates a market for primary mortgages, but it also changes the underlying relationships in the primary market[318]. Because the existence of the excess spread between the price at which the mortgage loans were transferred and the funding costs, the primary lenders are able to make money from fess for securitizing mortgages. In this new situation, the primary lender (originator) can earn more income through generating more mortgage loans, and logically the focus of the primary lenders shifted from serious evaluation of the riskiness of the homebuyer to providing more mortgage loans for securitization in the secondary mortgage market driven by a greedy desire for fee and servicing income. In order to generate sufficient new mortgage loans, the primary lenders loosen its underwriting standards and risk tolerance, and extend their lending to the non-conforming and sub-prime loans in the past three decades. At the same time, the primary lenders require less or no documentation, lower loan-to-value ratio and lower credit score. Many homebuyers who would not qualify the traditional under the traditional conventional are eligible for the new loans. As long as there was a market for the loans that they have originated, the primary lenders will continue to supply these kind of mortgage loans. The desire to maximize the profit of the primary lenders has greatly undermined the quality of securitized mortgage loans.

With respect to the investors in the MBS market, the problems of them before the sub-prime crisis is their excessive trust to the safety of MBS and the other financial products. In fact, they have no firsthand knowledge regarding to the quality of the underlying assets and the rules applicable to the underlying transactions. Their investing decisions just rely on the uniformity of standardized mortgage documents, and the fact that the underlying assets have been approved by the primary lenders and accepted by the purchasers on the secondary mortgage market, including the federal agencies, GSEs, and the sophisticated companies. The intervention of the federal government makes the investors believe that asset quality is good

[318] Robin Paul Malloy, Flawed Economic Assumptions: Critical Perspectives: Mortgage Market Reform and the Fallacy of Self-Correcting Markets,30 Pace L. Rev. 79, Fall, 2009, P97.

enough to secure the future repayment of the MBS. They always assume that the MBS market is independent from the underlying real estate transaction, and so they pay mor attention to the security market, while they have little interest to look at the fundamentals of the underlying primary mortgage market. To a certain extent, the financial crisis was, in many respects, a product of too much such trust[319].

There are two important reasons for the loosening underwriting standard in the primary market, which could be observed from the sides of the federal government and the secondary mortgage market itself. The first is the volitional policy of the federal government to raise the homeownership rates making credit more accessible to low income families and all racial categories. The GSEs are required to meet "affordable housing goals" set annually by the Department of Housing and Urban Development (HUD) and approved by Congress, and thus they are encouraged to fund more risky loans in the primary market. This meant a systemic increase in their exposure to sub-prime and Alt-A loans over the past decades. Secondly, from the market side, the primary lenders are no longer responsible for the riskiness of the underlying assets as a result of the originate-to-diversify model. The originator and MBS issuers did not fulfill their ex ante fiduciary duty to the MBS investors, whereby the investors could be protected by the common law judges. Thus, although common law fiduciary duties can be central in protecting shareholders, and often are in the United States, they're not always as strong as they can be cracked up to be[320]. This finding could be similarly applied to the MBS holders in the U.S secondary mortgage market. The excessive trust of the MBS holder was disappointed. So the government policy and the originate-to-diversify model together have rotten the foundation for the self-regulation and self correcting capacity of the housing and mortgage markets.

Based on the above analysis,The focus should the underlying real estate transaction in the primary mortgage market, the quality and reliability of which is directly linked to the MBS in the capital market. The problems occurred in the secondary mortgage market can be attributed to the weakness in the primary mortgage market. So measures should be taken to improve the

319 Raymond H. Brescia, Trust in the Shadows: Law, Behavior, and Financial Re-Regulation, 57 Buffalo L. Rev. 1361, December, 2009, P1364.

320 Lucian Arye Bebchuk, Federalism and the Corporation: The Desirable Limits on State Competition in Corporate Law, 105 Harv. L. Rev. P1435, 1441,1992.

soundness of housing and mortgage markets. *The fundamental reason for the mortgage market meltdown is the originate-to-diversify model of securitization and the legislations facilitating it.* So the right remedy to cure the financial crisis and to avoid the potential future crisis is to reform the legislation governing securitization restricting the side effects of originate-to-diversify or substituting it with the originate-to-hold model, and lay down a robust foundation for the market self-regulation[321] and self-correcting, rather than to enhance the government intervention in the name of public regulation[322].

4.3.3 Efficient legislation and market self-regulation for mortgage securitization: The promotion of statutory mortgage securitization

In this part, we will discuss the possibility of statutory covered bond system as a alternative for the U.S structured mortgage securitization so as to eliminate or mitigate the incentive problems in the originate-to-diversify model. To European investors, issuers and investment bankers, covered bonds may seem like old news, such as Germany and Denmark[323], but in the North American capital markets, they are still of novelty. As we have shown in Chapter 2, the first covered bond was issued in Prussia in the late 18th Century. In stark contrast, the first covered bonds were not issued by a North-American issuer until late 2006 and early 2007, when two US banks, first Washington Mutual and then Bank of America, implemented their inaugural covered bond programmes. At the same time, the U.S legislators have began to consider the possibility of introducing a legal framework for covered bond in the U.S. For

[321] However, some scholars still maintain that the common-law world was, for a variety of reasons, more hospitable than the civil-law world to private self-regulatory institutions. See John C. Coffee, The Rise of Dispersed Ownership: The Roles of Law and the State in the Separation of Ownership and Control, 111 Yale L.J. 1, P9, 2001.

[322] In fact, even the advocates of the government intervention and public regulation have not initiated good suggestions for institutional change so as to cure the current financial crisis and to avoid the future crisis. For example, Prof.Malloy is a firm advocate for the federal regulation, however, his suggestions for confronting the crisis are the following: curbing housing market speculation, reducing the incentive to Over-borrow and Over-lend,addressing an inverse Prisoner's Dilemma problem in the underlying real estate transaction. He perceived the very reason of the crisis, namely the worsening situation in the primary mortgage market because of the declining quality of the newly originated mortgage loans. However, the measures he initiated can not be applied in the long term, and can not be considered to be able to introduce radical institutional change in the mortgage market.

[323] The Danish mortgage system was hailed by the International Monetary Fund in late 2006 as "highly rated" and one of the "most sophisticated" mortgage systems in the world. See IMF, The Danish Mortgage Market - A Comparative Analysis 3,2007, available at http://www.imf.org/external/pubs/ft/scr/2007/cr07123.pdf.

example, on March 18, 2010, a bill titled by "United States Covered Bonds Act of 2010" had been introduced to the US House of Representatives by Representative Scott Garrett of New Jersey(the"Garrett Bill"[324]). The motive that encourages the U.S legislators to make reference to the EU covered bond is its advantages in credit risk control and financial stability. For example, in the over two hundred years since the inception of the mortgage bond market, "there has never been an incidence of default on a Danish mortgage bond.[325]"

4.3.3.1 The covered bond and credit risk control

The advantage of the funding framework of covered bonds is that it combine the scale advantages of capital market funding with on-balance sheet credit risk management by the lender[326]. Under the OtH covered bond, the flexibility in risk allocation is kept while only the credit risk is retained by the issuer-originator. Credit risk retention by the issuer/lender is an integral component of this funding model, and thus the issuer-originators have stronger incentives for maintaining high high quality of collateral, capacity, and credit assessment. so long as the issuer is a going concern.

With respect to the risk allocation or diversification, the originate-to-hod (OtH) model and originate-to-diversify (OtD) share different characteristics. Under OtD, nearly all risks are shifted from the originator to the GSEs, insurance companies and investors, including the credit risk. In the Agency or GSEs-backed securities, the Agency or the GSEs bear the credit risk in exchange for the guarantee fee, while the interest rate risk in shifted to the MBS investors. In the private-label MBS, the credit risk and interest rate risk are also shifted from the originator to the MBS investors and other risk bearers. The issuer-originator bears no risk any more under the OtD model. The efficient distribution of risk, to the investors who are willing and able to absorb them, is an important attribute in favor of the OtD model.

Under the statutory framework of covered bond, various provisions are adopted so as to encourage the issuer-originator to conservatively control the credit risk of the underlying

[324] The text of this bill is available at: http://www.opencongress.org/bill/112-h940/show.
[325] Jocelyn H. W. C. Chong, Danish Mortgage Regulations - Structure, Evolution, and Crisis Management, 9 Wash. U. Global Stud. L. Rev. 371, P372, 2010.
[326] Jay Surti, Can Covered Bonds Resuscitate Residential Mortgage Finance in the United States? IMF Working Paper, P5, December 2010.

mortgage loans. These measures are of importance for the health and financial stability of the secondary mortgage market, but unfortunately they can not be found in the U.S. Mortgage securitization theories and practices. In the following part, we discuss this advantage of covered bond with reference to the German Pfandbriefe Act 2005.

In the first place, the issuer-originator of covered bond are usually eligible financial institutions authorized by the supervisory authority which exercises oversight of licensed institutions' management of covered bond programs and retains the right to withdraw the license for failure to do so. Under article 2 (1) of the German Pfanbrief Act, a credit institution which wishes to engage in Pfandbrief business shall require the written license of the Federal Financial Supervisory Authority (supervisory authority) in accordance with § 32 of the German Banking Act. At the same time, these credit institutions shall also comply the requirements of the supervisory authority, covering capital, license suitable procedures and instruments to manage, monitor and control risks for the cover pools and the issuing business based thereon, and sustained business plan, and so on.

Secondly, the most important character of the covered bond is its originate-to-hold model, under which the issuer-originator shall keep the pooled assets in its portfolio and retain the credit risk of these assets. As a result, the originator has more stronger incentives to scrutinize the borrowers' quality. At the same time, the bondholders have full recourse to the issuers for the repayment of the bond debt. Moreover, the coverage principle is strictly followed so as to assure that the aggregate volume of pfandbrief outstanding must be covered by the pooled mortgage loans or public sector obligations. Under article 4 (1), the cover of the Pfandbriefe outstanding must be ensured at all times according to the net present value, which shall include interest and principal obligations; the net present value of the recorded cover assets must exceed by 2 percent the net present value of the liabilities to be covered (excess cover). The credit institution has the ongoing obligation to maintain sufficient assets in the cover pool to satisfy the claims of covered bondholders throughout the tenor of the bonds, and it is possible that the credit institution may therefore be required to add further assets to the cover pool to compensate for matured or defaulted assets.

Thirdly, some other complementary measures are employed to strengthen the originators' incentives to ensure the quality of the mortgage loans. For example, with respect to the valuation of the property, most of the EU covered bond statutes utilize the *mortgage lending value*, rather the market value, as a valuation basis. The MLV reflects solely the long-term, sustainable features of a property, meaning that short-term speculative aspects of the property price are disregarded. It is a sustainable value which includes neither temporary price peaks at the property market nor expected future increases in the value of the property[327]. Consequently, the speculative activities are restricted and the influence of the housing bubble is excluded.

Under these rules, the originators are imposed more duties and incentives to ensure the quality of the underlying mortgage loans and thus the moral hazard is mitigated.

While provision of a stronger incentive to issuers-originators for prudent underwriting is a primary benefit of the covered bonds model, it also has to bear some efficiency losses. For example, the loan-to-value ration in Germany is usually under 80%, even to 60%, and this has limited the flow of the market value of the real estate and thus engendered a efficiency loss for the mortgagors. One should weigh the increase in funding cost entailed by covered bonds against the salutary incentive impact of greater credit risk retention[328] so as to realize an equilibrium between funding efficiency and financial stability.

4.3.3.2 The efficient legislation and market self-regulation under the legal framework of covered bond

As we have demonstrated above, the legal framework of covered bond has imposed many restrictions to the originator so as to provide more incentives to control the credit risk from the underlying mortgage loans. Basically, the role of mortgage in this financing mechanism is preserved, and the secondary markets in the EU member states develop very well without the burst of financial crisis for more than 2 centuries as we has pointed out in 4.3.3.1. How does this legal framework to realize the balance between public regulation and market self-regulation? Or is the market self-regulation still possible with the existence of so many regulations from the law? If it is possible, how can this market self-regulation become

[327] Dr.rer.pol.Stefan Kofner, The german pfandbrief system facing the financial crisis, P14, July 2009.
[328] Jay Surti, Can Covered Bonds Resuscitate Residential Mortgage Finance in the United States? IMF Working Paper, P8, December 2010.

possible? Moreover, how does the equilibrium between investor protection (also the financial stability) and funding efficiency has been achieved?

Firstly, with respect to the relationship between the public regulation and market self-regulation, the legal framework of covered bond has established the criteria for the market entrance of credit institutions, the coverage principle, the valuation of the property, the status of the cover pool and the rights of the bond holders to it, and the statutory bankruptcy isolation of the cover pool from the originators' creditors, and so on. These provisions are necessary and vital for the inception and development of the secondary market for covered bond in EU, and thus they are endogenous factors for the secondary market. It signifies that the EU covered bond market would neither exist nor develop without these factors. As a formal and human-made market, the secondary market shall establish some rules for its participants to follow so as to maintain the market order and stability. In this sense, these rules are inherently consistent with the market's need for healthy and continuous development. The legislator has found these rules inherent in the market and put them together into a special legislation in order to normalize the transactions in this market. Those transactions which are not eligible to the standards will be prohibited to undertake in the market for the soundness of the market. This constitutes the rationality of these rules. So the public regulation and market self-regulation are harmonized and share no conflicts with each other. Except these rules, the government imposes no other duties to perform, such as the promotion of homeownership. Thus the secondary mortgage market does not suffer the unreasonable intervention from the government.

Secondly, the covered bond is realized through the statutory cover pool and statutory bankruptcy isolation[329]. The biggest advantage of this statutory approach is the legal certainty of bond holders' rights to the cover pool and the issuer-originator. The statutory cover pool is specifically separated or "ring-fenced" from the other estates of the originator and is utilized to repay the bond holder. Through the analysis in chapter 3, we found that the U.S. mortgage

[329] See article § 30 (1) provides the statutory bankruptcy separation: The assets entered in the cover registers including the assets as defined in par. 3 as well as the minimum reserve maintained with the Deutsche Bundesbank, inasmuch as it refers to Pfandbriefe, constitute assets which are separate from the Pfandbrief bank's general assets and which are not part of the insolvency estate in the event that insolvency proceedings are opened in respect of the Pfandbrief bank's assets (insolvency-free assets). The claims of the Pfandbrief creditors are not affected by the opening of insolvency proceedings in respect of the Pfandbrief bank's assets; the Pfandbrief creditors' right pursuant to par. 6 sent. 4 remain intact.

securitization legislation has experienced a long evolutionary history until now which still owns some legal uncertainty regarding to the rights of the MBS investors, especially in the event of the originators' insolvency. The recent development demonstrates that the U.S. Securitization are prone to adopt the EU statutory bankruptcy isolation approach. For example, the Housing and Economic Recovery Act of 2008[330] expressly provides that any mortgages or mortgage pools held by Fannie Mae or Freddie Mac in trust for the benefit of other persons are not available to satisfy claims of creditors of Fannie Mae or Freddie Mac, but will continue to be held for the benefit of those third parties[331]. And this demonstrates that the current federal law acknowledges the significant difference between (1) the GSEs' guaranteed mortgage-backed securities and the loans underlying those securities and (2) the GSEs' direct debt and the mortgage loan and mortgage-backed securities that the GSEs held in their portfolios[332]. The rationality of this statutory bankruptcy lies in the fact that the covered bond is based the credit of the underlying asset, not the credit of the originator, and the repayment of the bonds are mainly dependent on the quality and value of these cover pools. The bond holders shall be granted priority with respect to these underlying assets, that is to say, in the event of the insolvency of the credit institution, the assets in the cover pool will be used to repay the covered bondholders before they are made available for the benefit of the credit institution's unsecured creditors.

Thirdly, the pool recording eliminates the secret lien problems under the U.S mortgage securitization practices. As a result of the OtH model of covered bond, there is no need to transfer the mortgage loans from the originator a subsidiary SPV, and consequently the mortgage itself should not be transferred. This helps save the recording cost for the transfer of mortgage and mortgage loans. So there no exists a market intermediatory institution such as MERS, which has created serious problems of secret lien and thus imposed threat to the potential market participants, in the EU covered bond market. For example, under article 5 (1) of the German Pfandbrief Act, "the cover assets used to cover the Pfandbriefe as well as the

330 Housing and Economic Recovery Act of 2008, Pub. L. No. 110-289, 122 Stat. 2654 (amending scattered sections of 5, 12, and 15 U.S.C.).
331 See § 1145, 122 Stat. at 2746 (amending 12 U.S.C. § 4617(b)(19)(B)(i)) ("Any mortgage, pool of mortgages, or interest in a pool of mortgages held in trust, custodial, or agency capacity by a regulated entity for the benefit of any person other than the regulated entity shall not be available to satisfy the claims of creditors generally ... .").
332 Thomas E. Plank, Regulation and reform of the mortgage market and the nature of mortgage loans: Lessons from Fannie Mae and Freddie Mac, 60 S.C. L. Rev. 779, Spring, 2009,P802.

claims under derivative transactions shall be recorded by the Pfandbrief bank individually in the register (cover register) maintained for the respective Pfandbrief type." The cover register must contain precise details regarding the scope of the part to serve as cover and its rank in relation to the part not serving as cover; in case of doubt, the part to serve as cover shall have priority[333]. Moreover, a transcript about the changes of cover pool register should shall be submitted to the supervisory authority. The purpose of the registration and checking procedures (cover audits, cover pool monitors) is to formally secure that the cover assets are in existence and of value. This is essential for satisfying the Pfandbrief creditors' claims in the event of an issuer insolvency[334]. Through eliminating the secret lien, the bond holders are better protected by the law.

Conclusion

Mortgage securitization has radically changed the role of mortgage in credit risk control, and the incentive problems caused by mortgage securitization has greatly weakened the role of mortgage for the credit risk control. However, the mortgage law in common law system did not give appropriate responses so as to mitigate these side effects caused by mortgage securitization. The consequence is the deteriorating underwriting standard of the primary mortgage lender and the worsening quality of mortgage loans. The unreasonable federal government intervention in the secondary mortgage market made the situation worse. During the evolutionary development in the past 80 years since the Great Depression, the U.S. mortgage industry did not develop a set of rules to control the credit risk of the mortgage loans. In stark contrast, the EU covered bond legal framework put all the rules necessary for the credit risk control into a special legislation, such as the Pfandbrief Act in Germany, which eliminates the legal uncertainty of covered bond and has always been applied to ensure the quality of the underlying mortgage loans. This statutory approach of mortgage securitization has realized the equilibrium between funding efficiency and financial stability, and thus should be considered as a possible policy alternative to cure the financial crisis and keep the

333 See German Pfandbrief Act, Art. 5 (1a).
334 Dr.rer.pol.Stefan Kofner, The german pfandbrief system facing the financial crisis, P13, July 2009.

future financial stability.

Ⅴ Developing mortgage securitization in china

The rapid economic development and the consequent urbanization in China have engendered the great demand for affordable housing, especially in the past decades. Now the housing has became the hottest topic in China society, accompanied by the social security system, education and so on. However, because of the increasing housing price, it is out of the affordability of most of the low-and medium income families, whose income are mainly from their salary, especially those in the bigger cities. At the same time, the inequity among the home purchasers caused by the identity, working units[335] worsens the situation, as we have read in the story at the beginning of this dissertation. So how to provide affordable housing for the new city immigrants will be a great challenge for the China government, both central and local.

After the long discussion about the MBS in U.S and Europe, we now turn to the topic on how to develop mortgage securitization in China as a possible alternative to provide more financial assistance to the lown-and medium income family and to help them realize the homeownership dream in China. This chapter will be organized as following: 5.1 will firstly review the development of the housing market and the existing problems since 1988; 5.2 will discuss how China shall develop its secondary mortgage market, the U.S approach, the EU approach or one approach combining the advantages of the U.S and EU approach, and at the same time the current legal framework for securitization will also be studies taking into account of the economical and legal environment of China; 5.3 will analyze how to construct the future legal framework for mortgage securitization, so as to maintain the financial stability and to avoid the same crisis as occurred in U.S in the future.

[335] Here, the working units mean the employer for which the people work, for example a state-owned enterprise, a government department, public university or other private companies. Usually the public entities are granted many privileges in the housing distribution and supply in the aspect of land supply, credit, tax and so on. The employees working in these public entities thus have more opportunities to get affordable house than those in the private sectors. This constitutes a great discrimination to the private sectors and their employees.

5.1 The real estate market and the housing finance system of china

The real estate market is a relatively new emerging sector with a history of about 20 years. About 20 years ago, it was impossible to hear the public discussion about housing purchase and the rising home price in China. However, the housing purchase has attracted most of the attention from the governments and society. Why this transition has happened?

5.1.1 The commercialization of housing since 1978

Since the establishment of the People's Republic of China (PRC), the housing supply and distribution was greatly influenced by the planed economy under which the housing was built and distributed by the order of the central government. At the beginning of PRC, the government imposed the confiscation of land in the urban areas, and dominated the supply of land for the housing construction. The construction of the housings were supported by the government's financial income and the state-owned enterprises' accumulation, while the private investments in this sector is discouraged by the existing political environment at that moment. The houses were not considered as a commodity tradable on the marketplace, rather a welfare in kind to its citizens. So they were distributed to the citizens in kind without no payment for the building costs or they were leased to the families with a very low rent which were not sufficient to cover the maintenance costs. The slow economic development as a result of the wrong economic and political policies made it impossible to invest enough in housing construction. During the period from 1950 to 1978, the China government only invested about 374 China Yuan for housing construction[336]. So the housing supply was always in shortage before the reform and opening up since 1978. It is believed that the housing situation at 1978 became worse than that of 1950[337].

In order to mitigate the shortage of housing supply, the former China leader, Dengxiaoping,

[336] See China Statistical Yearbook, 1985.

[337] Zhang Qun, The reform of housing system in the past 30 years: A review from the point of view of legal history, Studies in law and business, Vol.1, 2009, P70.

made an important speech in 1980. In this speech, Deng admitted that the housing is also a commodity, and China should develop the construction industry, encourage the private to construct or purchase private housing, raise the rent of public housing, and give housing subsidiary to workers. These ideas were followed by the subsequent housing system reform in the 1980's and 1990's. Later the laws were employed to protect the private property over housing, and the《General principles on civil law》was promulgated so as to provide more incentives for the development of private housing. In 1988, the Constitution Law was amended under which the government began to grant land-use rights to private owners and the land-use rights was permitted to flow freely in the market for the first time. These laws together created the legal framework for the development of private housing industry and help mitigate the shortage of housing supply by stimulate the investment in housing construction. During the period of 1979 and 1990, about 280 billions China yuan were invested for housing construction through the diversified source of funding from governments, enterprises and individual families. Meanwhile, within a few years after the 1988 amendment of constitution law, the real estate development industry thrived. However, most of the housing is still distributed in kind and the governments beard great financial burden.

The radical reform of the housing system is the 1998's decision of the State Council of China, under which the housing was acknowledged as a commodity by the government's document. It required to stop distributing housing in kind and to monetize the distribution of housing. It is designed that the residential housing industry will be a new powerful engine for the economic development. It particularly required to develop the housing finance system. Since then, most of the housing are supplied by the real estate market, no longer by the government and state-owned enterprises in kind. In order to assure the housing purchase by the low-and medium income families, the China government also started the construction of *affordable housing*, which were provided at a lower price relative to those *commercial housing*[338]**.** However, the construction of affordable housing was seriously stagnated because of the incentive problems of the local governments, and thus there existed a great

[338] The distinction of the economic housing and commercial housing lies mainly in the fact that the former enjoys government favorable policies in the aspects of land supply, credit support and tax break, while the later is operated totally in a market way, without any government subsidiary or favorable policies. Logically the price of the later is higher than that of the former.

disequilibrium between the shortage of supply and robust demand. The development of residential housing in the past decade has produced the following problems: quality problem; the corruption in the distribution of the economic housing[339], and the rising home price.

Among these problems, the rapidly rising home price has been paid the most social attention. For example, the average housing price in Beijing is less than 10,000 RBM per square meter before 2005, while the current average price has been above 25,000 RMB per square meter[340]. According to the Statistic Gazzette of China in 2010, the increasing rate of the newly-built housing reached up to 17.3% in March, 2010. So the housing price has been out of the affordability for most of the families, especially the young generations who just start their career, and the real estate market becomes overheated. So how to curb the rising home price and make it affordable for the majority of families is a great challenge for the central government and local governments. The central government has taken many measures to control the real estate market and curb the skyrocketing housing prices. However, it seems that the government's efforts did not work because the home price in 2009 and 2010 continued to rise, even though the financial crisis had influenced the economy body of China. Why this happened?

5.1.2 The puzzle for the rising home price

Since 2000, the domestic economy of China has been facing many challenges, one of which is the rising home price. There are several possible reasons for the skyrocketing housing prices.

Firstly,the "land finance" of the governments, especially those local governments, is one

[339] In this aspect, the distribution of the economic housing is decided by the governments or the state-owned enterprises, and the limited number of economic housings are usually allocated to the government officers and state-owned enterprises' employees which have a higher family income. The families needy of affordable housing are usually not qualified to purchase the economic housing. At the same time, the economic housing is provided by the law and government regulations that it should be less than 70 square meters. However the economic housing is usually build more than 90 square meters so as to satisfy these higher income families with privileges.

[340] It seems impossible to find a correct statistics about the housing prices in china, especially those in the bigger cities, such as Beijing, shanghai. The governments' statistics is not credible because the statistics released by different departments are in conflict with each other; there are also some specialized real estate database offered by independent research institutions, it is also doubtful that the housing prices offered by them are not very correct because their data are also in conflict with the data published by the governments. For example, the average housing price in the past 2010, released by the Beijing Real Estate Transaction Monitoring (http://www.bjfdc.gov.cn/public/Index.asp) , is 14847 RMB per square meter, and the average housing price during January and July of 2011 is 13623 RMB per square, with a 8.2% reduction. However, the average price released by a specialized real estate research institution is more than 17, 000 RMB per square meter.

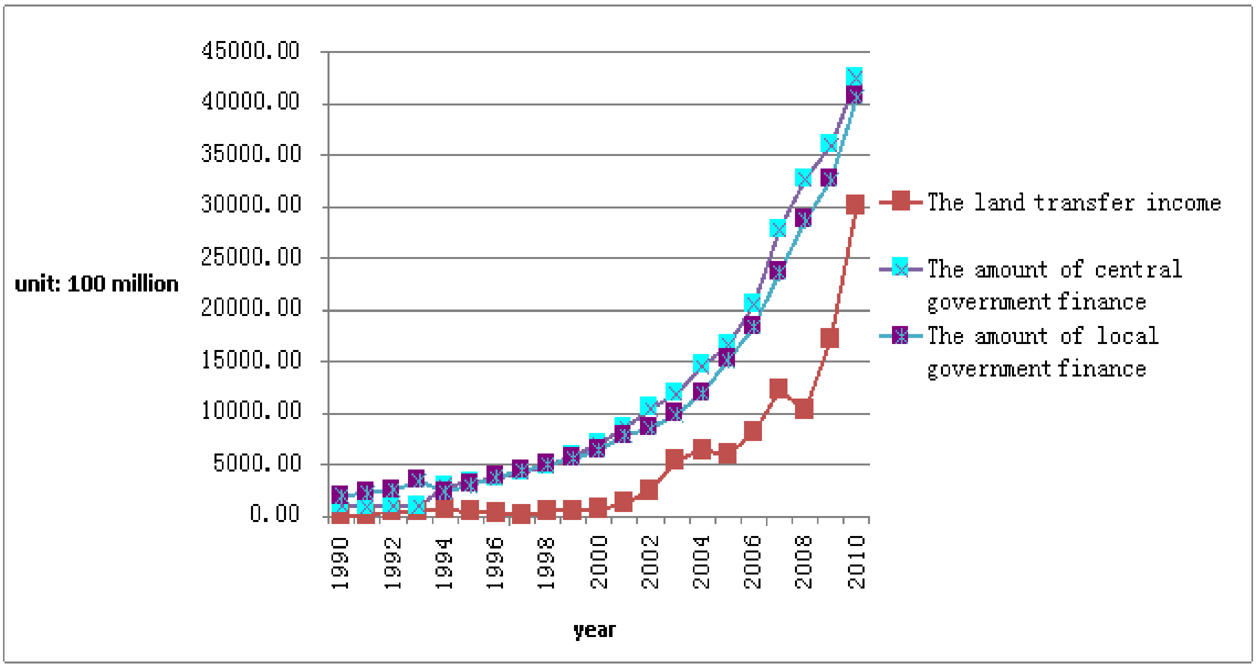
important propellent for the rising home price. According to the 12th "Five-year developing plan", the urbanization rate will arise from 47.5% to 51.5%. And there will be more new migrants in the cities and this means a continuing robust demand for housing in the future years. The supply of land is the prerequisite for the supply of housing and thus the sale of land-use rights becomes an important source of funding for the local governments in parellel with the normal financial income, and the governments' income is increasingly dependent on the transfer of land-use rights. In 2010, the income from the sale of state-owned land- use right has increased about 106.2%, reaching about RMB 2.94 trillion, amounting to 32.7% of the government's total income[341]. The secretary of the ministry of treasury, Xie Xuren, analyzed the three possible reasons for the high increase of the sale of state-owned land-use right: the strong demand of land because of the rapid urbanization and industrialization; an increasing percentage of lands are transferred by auction—— in 2010 about 60% of the lands are sold by auction, and the consequent income is 2.6 trillion, amounting to 80% of the total land income[342]; the rising price of the land. It is notable that about 2/3 of the land-sale income is from the eastern part of china, covering 8 or 9 provinces and metropolitan cities. As illustrated by the following table, we will find that the local finance became increasingly dependent on the land transfer income[343]. In the following two graphics, we will observe the importance of the income from the transfer of land-use rights. We can find that the income from the transfer of land-use rights becomes increasingly important for the Chinese central government and local government.

Graphic 3 The amount of land transfer income, financial income of central government and local governments

[341] See the government's total income in 2010 is 8.972trillion China Yuan, of which 7.739 trillion is from the tax, and 2.94 from the sale of the land-use right. http://blog.qq.com/qzone/549001870/1299510410.htm?pgv_ref=aio, . In the government working report, Wen Jiabao said the government income is 8.31 trillion China Yuan.

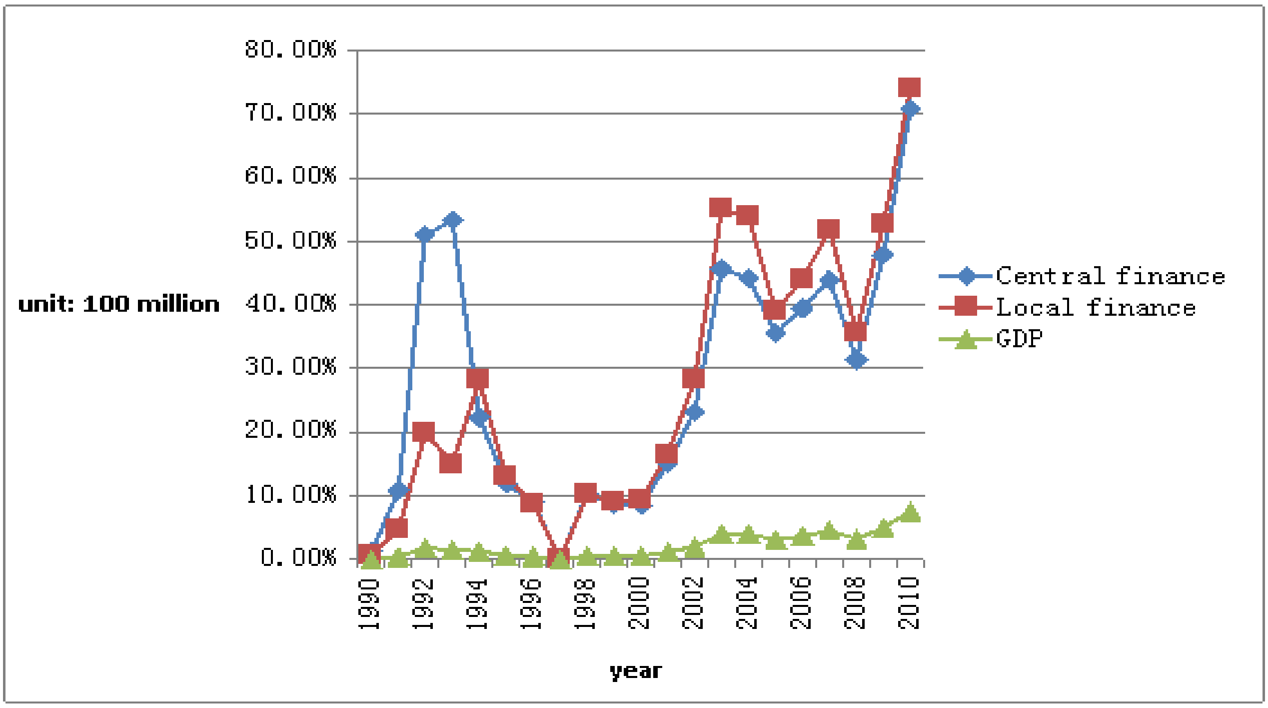
[342] See the interview with the secretary of the ministry of treasury of china, available at: http://finance.sina.com.cn/g/20110307/15439484980.shtml, visiting date: 2011-3-8.

[343] Here it is necessary to give a precise definition of land transfer income. Land transfer income is not the fee for the transfer of land-use rights. The land transfer fees is not calculated into the local governments' financial income and they are administered and used in separate account. So this comparison does not mean that the the land transfer income is included in the local governments' budget.



Source: China statistic yearbook of territorial resources; Statistic gazette of territorial resources; Local governmental fund income, 2010, Ministry of Treasury;

Graphic 4 The percentage of land transfer income relative to the financial income of central government and local governments



Source: China statistic yearbook of territorial resources; Statistic gazette of territorial resources; Local governmental fund income, 2010, Ministry of Treasury;

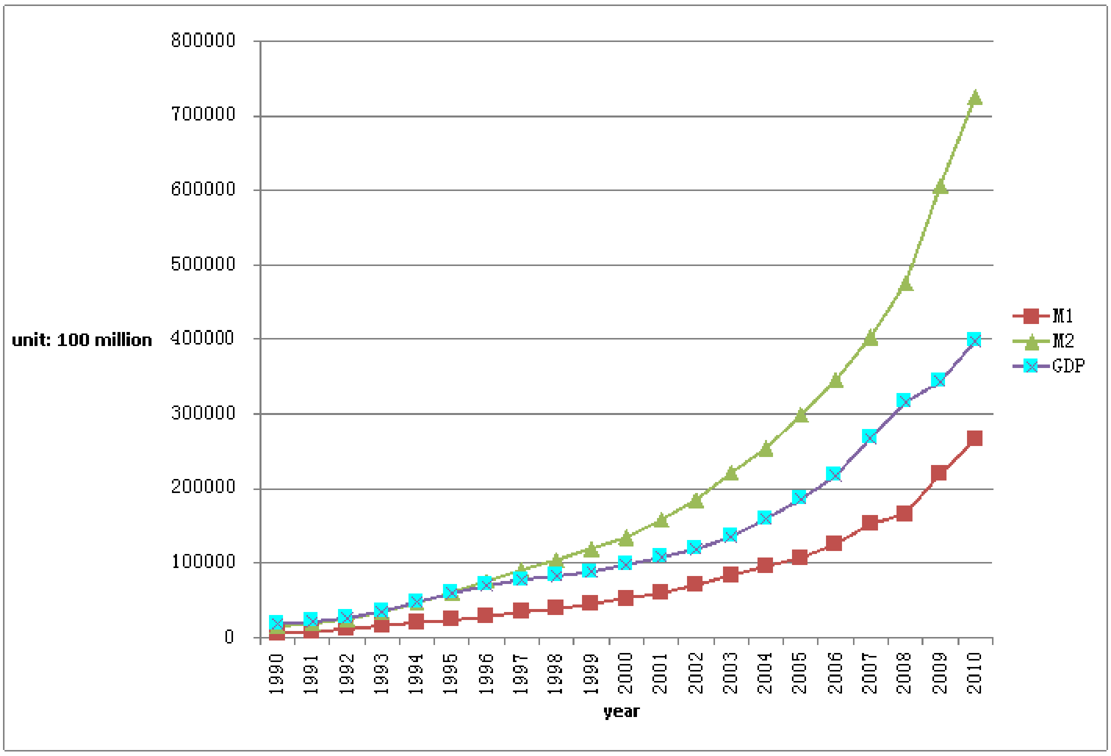
Secondly, the speculative activities in the real estate market. As a result of the rising home price, it is profitable to invest in real estate speculation. Many people, even those who do not own the financial ability, sought to invest in residential housing. At the same time, the commercial banks are also willing to extend credit to those investors because of the rising home price. Even if the borrower can not repay the loan, the rising market value of the mortgaged house can offset the potential loss of loan. Another important reason for the overheated real estate market is the deteriorating macroeconomic environment which caused the bankruptcy of manufacturing enterprises, especially those of small and medium enterprises in east China. Because of the lack of investment opportunities, these private capitals, together with foreign capitals[344] poured into the real estate market. And this further raises the home price.

Thirdly, the recent financial policies adopted by the central government against the financial crisis. In order to confront with the shock from the financial crisis, the Chinese government adopted “proactive fiscal policy and a "moderately easy monetary policy" to enhance the liquidity in the market. In 2008, a short period after the U.S administration’s 700 billions of dollars plan to save the financial market, the China government proclaimed its economic recovery plan of RMB 4 trillions investment for the construction of railway, highway and other infrastructures, of which 1.18 trillion RMB were invested by the central government[345]. At the same time, 9.59 trillion RMB new loans were made in 2009 in response to the financial crisis. We can get some insights from the increase of the M2 as demonstrated below.

Graphic 5 The M1, M2 and GDP of China

[344] The foreign speculators expect that the exchange rate of china Yuan will rise relative to the main currencies of the world. Thus many “hot money” enter into china.

[345] China government working report, see http://news.sina.com.cn/c/2011-03-05/112022058004.shtml visiting date:2011-3-8.



Source: The People's Bank of China, National Bureau of Statistics of China (Billions of RMB)

As demonstrated by this graphic, the M2 has surpassed the GDP since 1995, and most of the increasing rates in these years are above 15% per year. So many currencies poured into the domestic market, the consequence is inflation of the economy body. That is why in the past 4 years, China has been struggling with the rising price of everything, from the consuming products to production materials. The CPI of 2011 just published is about 5.4%. Of these new funds, a certain percentage of them were invested into the real estate market in the form of mortgage loan, and undoubtedly raised the home price.

At the same time, the central government of china has realized the severity of the excess liquidity in the economic system. Entering into 2011, the central government takes many measures to resolve the inflation and draw back the money from the market, by raising the rate of deposit reserve, issuing note to the commercial banks, controlling the amount of loans, etc. For example, the rate of deposit reserve has raised up to 20% in March 18, 2011. According to Fan Gang, 30% of the currencies has been locked and can not flow into the market in March 20, 2011[346]. Except the tightening monetary policy, the government also enact strict polices in credit, land supply and so on. The most rigorous measure is to restrict the purchase of second house of the high-income families with administrative measures so as curb the speculative activities in the real estate market. These efforts of the government is to keep the home price at an acceptable level.

5.1.3 The affordable housing in china

In fact, the housing policy has experienced a transition since 2010. Except the government's efforts to curb the skyrocket home price, the government also began to construct affordable housing for the low- and medium income families.

Under this context, the central government and local governments began to intervene into the real estate market. First, they want to control the housing price through various measures, such as land-supply, credit-supply, tax and so on. However, these measures proved to fail for the housing price continued to rise. Since 2010, the governments began to intervene into the housing markets in a more direct way, building low-cost houses for the citizens, especially the low-and medium-income family.

In order to increase the supply of housing, the central government of china decided to build *36 millions* apartments for the low and medium-income families in the 12th five-year program and the affording housing shall at least account for 20% in the total housing supply in this five-year period. This percentage is a bounding indicator for the central and local governments. According to this ambitious housing building plan, the government has begun to construct 5.9 million units of new apartments in the past 2010 and 3.7 million units have been finish. In 2011, the number is increased up to 10 millions units[347]. According to the statements of the Ministry of Treasury, these 10 million new apartments need about 1.3 billion RMB, and the central government provides 16.88 million RMB while the local governments

346 See http://finance.qq.com/a/20110320/000461.htm?pgv_ref=aio, visiting date 2011-3-20.

347 It is notable that the expression of the target for affordable housing construction has been changed. At first, it was designed that 10 million apartments will be finished in 2011, while it later changed to start the construction of 10 million apartments. The change of the wording demonstrated the government's unwillingness to bear excessive burden for the affordable housing construction.

provide 21 million RMB. And the residual should be financed by the involved enterprises, individuals and social capital[348]. In contrast, according to Prof. Daokui Li[349], only the 10 millions affordable housings built in 2011 would cost at least 1400 billion RMB which constitutes a great burden to the budget of central government and various local governments. Now the funds for the construction of new affordable apartments are mainly from the issuance of treasury bonds. It is, however, not a sustainable source of funding because the incomes of government in the future would possibly decrease or stagnate with slowdown of economic development. Furthermore, the rising debt level of the government would have to potential to cause a debt crisis like what has happened in Europe. And this has triggered the anxiety of the government decision-makers and scholars.

Here we do not care about the good will of the China government, we just discuss its economic feasibility and economic conveniences. The greatest challenge for this ambitious house-building plan is how the government can get sufficient funds to finance the construction and how can they pay these debts in the future. For the reason of lack of fund, the ambitious plan has not been very well implemented, especially in the poor cities. It is expected that 700 million RMB at most has been invested to fund the housing building in 2011[350].

According to my observation of the U.S and the German housing financing system, the governments shared a very conservative attitude for their involvment in the real estate market, especially the supply of affordable housing . They usually tried not to be directly responsible for the construction of apartments for the families in great volume, and they always left it to the market through special programs and mechanisms. Even if the U.S federal government has created some agency programs and the GSEs to support the family to purchase house, they also try to be involved at a lowest cost, namely indirect and implicit guarantee through the agency and GSEs. The majority of the funds for the housing supply are provided by the secondary mortgage market through the issuance of MBS.

Although the government has adopted many measure to control the rise of the home price in the past years, we have observed that the home price is still kept at a very high level out of

[348] http://www.soufun.com/news/2011-08-07/5598791.htm, visting date: 2011-09-02.
[349] Prof. Li is also the member of the monetary policy committee of the China People's Bank.
[350] http://sh.house.sina.com.cn/news/2011-11-06/0855134511.shtml, visiting date 2011-11-6

the affordability of most families, especially in the bigger cities, such as Beijing and Shanghai. However, the high price of the housing in china has a multiple factors, such as the unfair land-use right transfer system, the urban-rural gaps, and the deteriorating environment for the small- and medium enterprises. According to my observation, the most important reason is that China does not own a well developed housing finance system, through which the low-and medium- income families can get financial support. Meanwhile, there are in fact some residual capital that are seeking good investment opportunities and diversify their investment risks. However, the strengthening control of the state-owned economy has squeezed the space of private enterprises and capitals which are facing a deteriorating macroeconomic environment. These capitals have no good investment conduits, and they have to pour into the real estate market, the stock market and so on. The price level in these market no doubt surges. This is a great dilemma for both the government and the private capital, namely the families needy of new houses can not get credit from the commercial banks because of the government's tightening policy, while the private capital can not find good investing opportunity. This structure paradox can be eliminated through the development of mortgage securitization which will function as a conduit for the capital flow from the capital holders anxious of investing opportunities to the families needy of credit support for the home purchase.

So china should study how to use the secondary mortgage market to fund its affordable housing construction, rather than directly fund housing through their financial incomes or government bonds. The mortgage securitization will be good policy choice for the decision-makers.

5.2 The mortgage securitization in china

In fact, the securitization practices have been initiated as early as 2005. Some regulations have been enacted so as to lay a legal foundation and institutionalize it in the law. However, the development of securitization in China is not smooth, and at certain moment fell into stagnation. In this part, we will retrospect the development of securitization in the past 7 years, review the primary legal framework of securitization, and discuss the potential institutional problems that have blocked the development of securitization.

5.2.1 The development of securitization in China

Securitization is comparatively a new financial transaction introduced recently into China. Its introduction and development adopted the "pilot experiment" approach which has always been employed to introduce new institutions or technologies since reform and opening up. Different from the market-oriented securitization in U.S.and Europe, the introduction and development are usually promoted by the government, especially the China People's Bank. This has been well explained by the securitization practices in the past 7 years as we will demonstrate in the following.

The securitization in China primarily focus on the securitization of financial assets from the state-owned commercial banks, including mortgage loans, consumer loans and so on. Some account receivables from the state-owned enterprises could also be securitized. Specifically speaking, there are two approaches of conducting a securitization transaction under the existing legal framework in China, namely (1) Credit assets securitizations using trusts as special purpose vehicles (SPVs) (special purpose trusts (SPTs)), which are regulated by the People's Bank of China (PBOC) and the China Banking Regulatory Commission (CBRC); (2)Corporate asset securitization using customer asset management plans as SPV, which are regulated by the China Securities Regulatory Commission (CSRC).

Regarding to the corporate asset securitization, the decision-makers has began to study it and started the first pilot program in 2005. In August 2005, China Unicom initiated the first corporate assets securitization transaction, issuing CNY9.36 billion ABS, under the collective asset management plan (CAMP) model. The CAMP model was employed in the subsequent eight securitization transactions on the market. These securitization transactions covered various sectors, such as telecommunication, infrastructure, transport and financial leases[351]. As the end of 2009, the securitization of corporate assets had issued RMB 26.6 billion ABS,

[351] It is notable that these infrastructure are usually operated by the state-owned enterprises, which are usually enjoy the central government's implicit guaranty, get a high credit rating and are thus more acceptable by the undeveloped secondary market in China.

and three ABS has been successfully liquidated as designed, and the security holders have been repaid the principle and interests.

With particular reference to the credit assets securitization, it covers the securitization of residential mortgage loans, commercial mortgage loans, car loans, consumer loans and so on. For the purpose of this dissertation, we concentrate on the securitization of residential mortgage loans. The first residential mortgage-backed security is the " 05 JianYuan 1" issued in 2005 by the China Construction Bank, with an outstanding amount of RMB 3 billion, which is the biggest residential mortgage originator and has conducted most of the residential mortgage securitization transactions. In 2007, it issued another RMBS " 07 JianYuan 1", with an outstanding amount of RMB 4.16 billion[352]. Until now, these are only these two RMBS transactions[353].

Since the subprime crisis burst in 2007, the mortgage securitization has fell into stagnation as a result of the decision-makers anxiety of financial risk. In the past four years, there was no new issuance of MBS. However, the discussion regarding to the further development of mortgage securitization has never been stopped, and there are some advocates promoting the faster development of mortgage securitization, especially some decision-makers in the central banks of China and banking regulatory authorities. For example, the vice president of China people's bank, Shiyu Liu, stated that the development of securitization should be fastened, and should not be limited to pilot experiments in selected areas and gradual enlargement. In this opinion, the securitization of credit assets can improve the capital adequacy ratio, transform the indirect loan into direct financing in the capital market, and thus re-adjust the ratio between the direct financing and indirect financing[354]. Meanwhile, the Chinese banking system is eager to get new source of funding, resolve the mismatch between long-term assets and short-term liability and realize an equilibrium in their balance.

352 See the introduction of MBS business by the China Construction Bank, available at: http://www.ccb.com/cn/corporate/investment/securities.html, visiting date: 2009.10.03.

353 See the statistic about the issuance of MBS and ABS, available at: http://bond.jrj.com.cn/data/zczqh.shtml, visiting date: 2011.05.06.

354 See http://finance.qq.com/a/20110429/001125.htm

5.2.2 The legal framework for mortgage securitization in China

Since the introduction of Mortgage Securitization in 2005, the decision-makers have enacted several regulations and other documents to encourage it development and enlargement. These regulations and documents cover the the main questions referring to securitization, including: the regulatory authority, transfer of receivables, security issuance, accounting rules, capital adequacy, tax, and so on, and thus constitute a comprehensive legal regime within which the securitizations are carried out. Generally speaking, the China securitization theory and practices are greatly influenced by its U.S. Counterpart, because it adopts the "true sale" principle, the special purpose trust, the accounting rules and so on.

Firstly, the PRC Trust Law, enacted in 2001, is the fundamental legislation governing credit asset securitizations. Under the current legal regime, trust is the unique legal entity form which is employed to receive and manage the transferred mortgage loans. The special purpose vehicle is constructed under the provisions of "Trust law", namely the special purpose trust (SPT). Under article 15 and 16, the assets transferred to the trust are considered to be independent from both the trustors' and trustee's own properties. The trust could be terminated under certain conditions.

Secondly, the People's Bank of China (PBOC) and the China Banking Regulatory Commission (CBRC) enacted the "Administrative Measures for Pilot Credit Asset Securitization Projects" enacted on 20 April 2005. Mortgage loan is categorized as one of the most important credit assets and mortgage securitization thus falls into the jurisdiction of this regulation. This is the first comprehensive regulation governing the credit asset securitization, including the independent status of the trust estate, special purpose trust, the issuance and trading of the credit asset-backed securities. The CBRC and the PBOC are the joint regulator of credit asset securitization, and are responsible for different aspects of the securitization process:The CBRC is concerned with monitoring financial institutions; while the PBOC regulates the issuance and trading on the inter-bank bond market because the securities will be traded at the inter-bank bond market. In order to realize the "true sale" and "risk shift", the trust is provided as the legal form to receive the transferred assets. Meanwhile, under article 6 of this regulation, the trust estate is independent from that of the originator, trustor, servicer, and the other intermediatory agencies involved in the securitization transactions. The trustor bears responsibility to repay the security to the extent of the amount of the trust estate. This "True Sale" principle is confirmed by a later "Notice on normalization of the transfer of credit assets of financial institutions" issued on 3 December, 2010, which requires the financial institutions to realize the radical transfer of the credit assets and the risk. At the same time, it also imposes the obligation of due investigation to he transferee, including the credit history of the borrowers, the situation of business operation, the legality of the credit assets and so on. The imposition of this duty aims to assure the quality of the transferred assets.

Thirdly, the People's Bank Of China enacted one important regulation, "Management rules on recording about the pledge on account receivables" in 2007 after the enactment of the "Real Property Law". Under this regulation, the credit reference center of the PBOC is responsible for the public filing of the security interests over account receivables. The loans advanced by the commercial banks are categorized as one type of "account receivable" under article 4 of this regulation. Logically, the mortgage loans fall into the jurisdiction of this regulation. Once recorded in this public filing system, the creditors will be granted priority over the subsequent creditors with respect to the account receivables. However, this regulation has potential conflicts with the provisions regarding to the conveyance of obligations in the contract law, under which the transfer of contractual obligation only needs the notification to the debtor. This is because that it is very hard to distinguish the conveyance of account receivables and the pledge over account receivables as a result of their intangibility. There exists the possibility of fraudulent transfer of account receivables, for example, one creditor first conveys its credit to B with a certain price, then he is also able to get credit from the banks using this account receivable as collateral through filing a public recording. In this situation, the rules on the conveyance of account receivables are undermined by the account receivable pledge. So the true sale in China does not exist or is unsafe for the MBS investors.

Fourth,with particular reference to the transfer of the mortgage loans, the former Ministry of Construction issued a "Notice on the change of recording of mortgage transfer in residential mortgage securitization" on 16 May, 2005, which provides in detail the change of recording of mortgage transfer. Because the Chinese contract law and mortgage law strictly stick to accessoriness principle, the transfer of underlying loan is automatically followed by the transfer of mortgage or other forms of security interests. Under article 50 of the "Guaranty law"(1995) and article 192 of the Real Property Law of PRC(2007), the mortgage can not be transferred without the transfer of the underlying obligation or be transferred alone to secure the other obligation. When the underlying obligation is transferred, the mortgage securing the obligation should also be transferred. For this purpose, the 2005 Notice provides that the real estate registry can make a batch recording of mortgages transfer for the transfer of a group of mortgage loans to the Special Purpose Trust in the mortgage securitization. Particularly, this Notice specify the period within which the batch recording shall be completed, usually within 5 days for less than 200 individual mortgages, and within 15 days for the transfer of more than 200 individual mortgages. This batch recording is similar to the recording of mortgage pool in the German Pfandbriefe act.

These laws and regulations mentioned above, together with the other documents issued from 2005 to 2011, create the legal regime for the development of mortgage securitization.

However, there still exist some problems in this legal regime. *Firstly*, there is lack of one comprehensive legislation that can institutionalize the mortgage securitization, and thus the legal foundation for mortgage securitization is shaky or uncertain. Although the "Trust Law" is a legislation governing the creation and legal status of the special purpose trust, it does not take into consideration of the characteristics of securitization because it was enacted in 2001 when the securitization had not been introduced into China. Consequently, the "True sale" and the "Bankruptcy isolation" sought by these regulations have not been acknowledged by the legislations. As we have analyzed above, the Chinese scholars have not yet studied the distinction between "true sale" and "sale intended as security" in detail, and the conflict between "sale" and "lien" has not very well resolved. The potential threaten from the pledge over account receivables is fatal for the safety of the MBS investors. At the same time, the relationship between mortgage securitization and bankruptcy law has not yet well studied. *Secondly*, the true sale and risk diffusion are particular emphasized by the regulations and government documents. However, according to what we have found in the EU and U.S. Practices, it is impossible to realize it. Meanwhile the true sale and risk diffusion are apt to cause moral hazards, because the commercial banks transferring the receivables and the relating risks have no longer any incentive to control the credit risk of these receivables, even if the regulations impose the obligation to investigate the credit quality of the transactions. *Thirdly,* the MBS is limited to the inter-bank bond market by the 2005 regulation as we have mentioned above. However, the experience in EU and U.S. Tells us that the most important advantage of mortgage securitization is to link the credit market and the capital market so as to find a alternative source of funding for the banks. The limitation on the scope of market has blocked this linkage between these two markets in China. When most of the banks are eager to improve it capital adequacy ratio, the MBS will be hard to issue in the inter-bank bond market.

For these reasons, it is necessary and inevitable to reconstruct the existing legal framework for mortgage securitization for the purpose of both encouraging its further development and keeping financial stability. The soundness of the primary mortgage market should be focus of the future legislative regime.

5.2.3 The approach of securitization of china

In China, it is very difficult to transplant the legal regime of the U.S governing the mortgage securitization, although its Bankrupt law and the provisions on security interests over personal property have been greatly influenced by the U.S Bankruptcy Code and UCC-9. Traditionally, China is a civil law country, the law system of which was introduced from the continental Europe, especially from Germany. Its civil law legislation is greatly influenced by the German civil code. This merit of Chinese legal system makes it more suitable to introduce and accept a legal regime from EU, rather than from the U.S..

With respect to the development of mortgage securitization in China, I hold that it is more appropriate to introduce the EU covered bond legal framework. The reasons are as following.

Firstly, the U.S mortgage securitization becomes possible because the U.S. owns a developed capital market with the involvement of the intermediatory third parties, such as the mortgage brokers, rating agencies, insurance companies, appraisers, law firms and accounting agencies. However, these sectors in China are less developed to the extent that they can not offer the services necessary for the operation of the MBS. There lack the professionals and experts in these fields. For example, the origination and development of rating agencies is only a recent phenomena[355]. And the rating agencies in china were operated irregularly, lack of regulation and transparency, and thus have got poor international recognition.

Secondly, the mortgage market usually suffered government intervention, both from the central government and the local ones. It seems that it is not possible to undertake mortgage based financial innovations only depending on the market power without the government intervention. The history of China reform demonstrates that the development of the normal and modern market usually is driven by the government efforts guided by the top-down reform approach, not by the market itself. So the evolutionary approach of U.S. mortgage securitization is impossible to undertake in China. In contrast, the EU covered bond system owns history of more than 2 centuries with an accumulation of experience dealing with various market risks, including the credit risk, and it combines the government intervention and market self-regulation in a inherent way realizing the equilibrium between the funding efficiency and financial stability. This approach can be transplanted into China with the lowest costs and risks.

Thirdly, as we have shown in Chapter 3, the U.S. legislation governing mortgage securitization also owns some fatal drawbacks, including the secret lien problem, and the legal uncertainty arising from the lien-sale characterization and the bankruptcy isolation. These problems, combining the originate-to-diversify mortgage securitization, will together destruct the legal foundation for the healthy development of the mortgage market, and thus impose negative effects to the financial stability.

For these reasons, it is more convenient to adopt the EU covered bond rather the U.S. mortgage securitization.

[355] Dagong Global Credit Rating Co. Ltd. (hereinafter referred to as "Dagong") is a specialized credit rating and risk analysis research institution founded in 1994 upon the joint approval of People‘s Bank of China and the former State Economic & Trade Commission, People’s Republic of China. But it only started it internalization process since July 2010 through releasing its first sovereign credit risks report for 50 countries throughout the world. See http://www.dagongcredit.com/dagongweb/english/aboutus/index.php, visiting date: 2011-3-14.

Ⅵ. Conclusion

6.1 The mortgage has been transformed from a stagnant lien into a tradable commodity in the capital market because of the large-scale mortgage securitization in Europe and U.S. The development of this trend facilitates the financing of banks, families and help to resolve the housing problems and promote homeownership.

6.2 The institutional cause of current crisis can be traced back to the anti-crisis legislations which created the amortization of mortgage loans. The amortization caused the mismatch between the assets and liabilities of financial institutions. Combining with the inflation in the 1970's, the financial institutions suffered great loss from the interest risk because of the non-stable macroeconomic environment. Through various forms of financial innovations developed since then, including securitization, the financial institutions utilized them as instruments to avoid the loss as a result of the interest risk. Amortization and the inevitable interest rate risk together constituted the two most important premises for the current crisis. However, the more important reason of the current financial crisis lies in the fact that the later legislators did not give a correct respondence to the changing economic environment and the changing market environment caused by the development of mortgage securitization.

6.3 The common law system is not efficient as maintained by the scholars, such as LLSV. That is because the flexible and efficient common law has been replaced by rigid and inefficient legislations which are promoted by the interested industry participants. The common law system was no longer able to give a timely response to the market changes. Moreover, these legislations promoted by the advocates of securitization have engendered a "race-to-the-bottom" competition and thus have rotten the legal foundation for the market self-regulation.

6.4 Mortgage law plays an important role both in the traditional secured lending and the mortgage based financial innovations, such as mortgage-backed securities. However, its monitoring role in mortgage securitization has been greatly weakened under the originate-to-diversify model of mortgage securitization. Various "distances" caused by the OtD model produced serious incentive problems, and no participants in the secondary mortgage market are responsible for the quality of the underlying assets for securitization.

6.5 For the healthy and sustainable development of the secondary mortgage market and mortgage securitization, the public regulation is necessary but not sufficient. It is necessary to re-construct the legal regime governing the mortgage securitization, including mortgage law, secured transaction law, bankruptcy law, so as to reduce the risk in each step of financial transaction in the microeconomic level. The institution changes in these laws should give the market participants correct incentives to control the credit risk of the securitized assets so as to reduce the systemic risk in the whole secondary mortgage market. In this sense, the EU covered bond system is encouraged to introduce the interested countries suffering from the financial crisis. For the emerging countries, such as China, it is also a good policy choice so as to realize the equilibrium between funding efficiency and financial stability.

6.5 Developing a secondary mortgage market in china is a good and necessary policy alternative for improving the housing condition and promoting homeownership for the low- and medium income families, especially for the new graduates and city migrants from the countryside. The statutory mortgage securitization based on the EU covered bond should be promoted in the future, rather than the U.S. OtD mortgage securitization.

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Codes and Laws

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2. Italian civil law code;
3. French civil code;
4. Restatement of the Law, Third, Property (Mortgages);
5. UCC-9;
6. U.S Bankruptcy Code;
7. Housing and Economic Recovery Act of 2008, Pub. L. No. 110-289;
8. China real property law;
9. China trust law.