

# **The U.S. mortgage market's crisis -**

## **Empirical analysis and implications for Germany**

**A study prepared for the German Association of  
Private Building Societies**

**Abstract**

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**An economic system that, by tradition, is heavily dependent on retail credit**

In the course of the “New Deal” during the 1930ies, the U.S. was trying to overcome the world economic crisis by the allocation and coverage of credits by federal institutions. Since then, the mortgage market in the U.S. has played a pivotal role in terms of economics and politics.

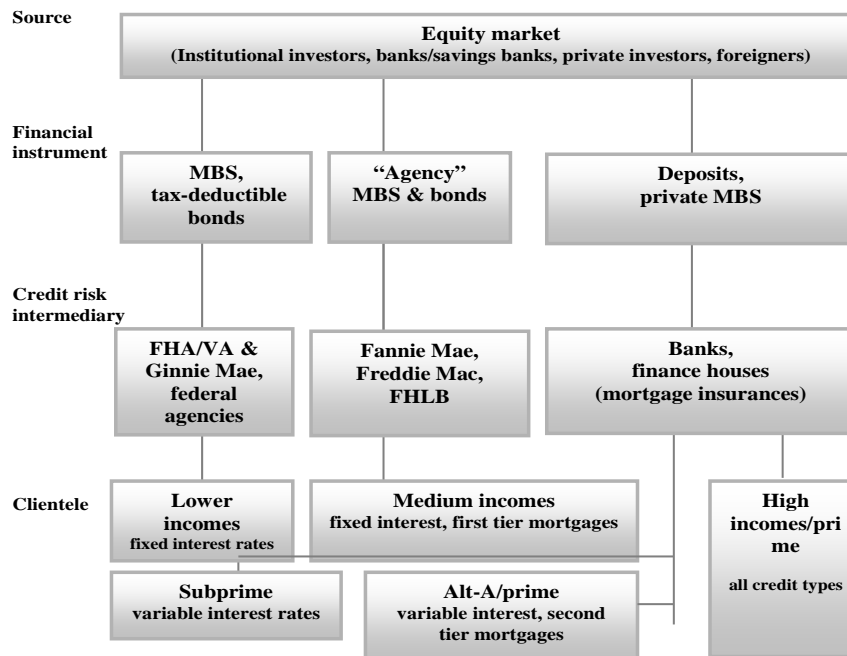
The generous mortgage interest tax deduction, the federal assumption of credit risk in almost 50% of all financings and a, partially, very accommodating settlement policy with respect to credit and capital markets have for decades been ‘promoting’ consumer credit business in particular.

The above mentioned also has beneficial effects on the private credit industry, though, as a result of a strict legal and regulatory separation from the State segment, essentially it was allocated the role of financier of high credit risks.

Private lenders behave correspondingly innovative in product development and the opening up of new borrower target groups that are not supplied by the State.

However, the counterpart of high promotion is rising credit dependence. By international comparison, U.S. consumers in particular record one of the highest debt levels and one of the lowest savings rates.

**Structure of the U.S. housing finance system as of the beginning of 2007**



Source: Finpolconsult

## **Lower lending standards fuel house prices and inflate the consumption bubble**

During the latest credit market cycle, which lasted from about 2001 to 2006, the U.S.' housing credit sector experienced a sharp decline with respect to the standards of lending.

While the interest rate structure curve is becoming steeper in the cycle, fixed-interest products, which are essentially offered by the U.S. federal agencies, usually become more expensive compared to the variable-interest products essentially offered by the private sector.

The rise in the price of risk coverage via fixed interest rates has been particularly intense during the last cycle. This is due to the politically desired refinancing activity precipitated by short-term interest rate cuts in 2002/2003.

These, in turn, protected the U.S. against recession just after the terrorist attacks of 2001 by means of higher consumption. Another effect were long lasting higher risk premiums for fixed-term loans which offset the increased prepayment risk.

Along with the unusually strong reduction of financing costs across the market during the initial phase of the cycle, house price inflation, which in any case was supported by strong fundamentals in the USA, was further fuelled in the following years.

As a result, demand for variable-interest loans rose again stronger than usual, especially for 'non-traditional' financings with low initial payments, without repayment or even with initial interest capitalisation.

High house prices also drove demand for subordinated loans, both in terms of the existing housing stock, in order to benefit from high price levels by increasing consumption, and in residential development and real estate acquisition. The latter was necessary to avoid the costs of non tax deductible mortgage insurances. Both cases resulted in sharply rising aggregate loan-to-value ratios. In 2006, 46% of U.S. home buyers were featuring an equity ratio lower than 5%, accordingly.

At the same time, under the Bush administration, the State withdrew from financing or backing the low income market by deferring the increase in the house price limits. Within a few years, sub-prime credits offered by the private sector filled this gap.

The private sector also supplied medium-income borrowers who had problems in bearing their credit burden facing the level of house prices. Borrowers with incomplete income documentation were also served. In 2006, the share of these types of credits already amounted to about 20%. About three quarters of those were variable-interest financing.

A decisive role in the lowering of the standard was also played by the disintermediation model of mortgage financing, which had rapidly gained

ground, whereby financing companies and investment banks charge fees to sell credit portfolios valued by rating agencies to investors.

In contrast to the state-organised market, in which Fannie Mae and Freddie Mac guarantee these portfolios, the private market is based on the existence of investors who buy particularly high-risk tranches of securitised loans.

These are in plentiful supply in a globalised financial market still with extremely fragmented regulations.

The above-mentioned changes in risk structures towards the end of the cycle led to a disengagement of lending standards and financed house prices from the actual solvency situations of many borrowers.

In 2006, the house price level in the coastal regions of the U.S. was more than twice as high as in 1998, whereas the nominal income had risen by only about 40%.

### **Collapsing credit markets – the beginning of the end of a bubble**

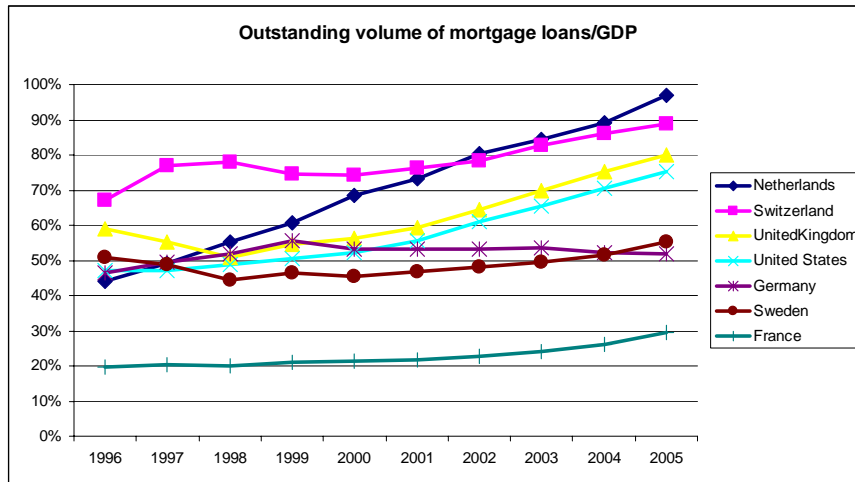
At the beginning of 2007, the discussion on the risk content of the U.S. housing credit portfolio firstly focuses on the loan default rate in the sub-prime market, which in the meantime has risen by 10%-20%. This market in particular suffers from cases of fraud and a strong accumulation of risk factors (low creditworthiness, variable-interest products, often interest-only loans).

Crises in the sub-prime segment resulting in the collapse of businesses and an abrupt decline in lending (credit crunch), as can be observed presently, are admittedly nothing new for the U.S. Problematic, however, in addition to the sharp rise in market volume, is the concentration of losses among investors prepared to take risks, especially investment banks and hedge funds. Their withdrawal is currently causing a liquidity crisis. Furthermore, the loan defaults ruthlessly reveal the risks of the disintermediation model: balance sheet problems, originators and rating agencies that depend on only a few investors and investment banks with little incentives to minimise the investors' risks. A general loss of confidence in the mortgage-backed bonds market threatens the global credit market.

It is also worrying that, in addition, a proportion estimated at up to 50% of the prime and near-prime portfolio in the U.S. is consisting of interest-only, variable-interest or fixed-interest loans. With falling house prices, this credit fraction could slip into a negative equity position. In addition, a few particularly high-risk forms of financing, such as those with low income documentation requirements and interest capitalisation, are concentrated in these portfolios. Refinancing these high-risk products will however become impossible in the foreseeable future as a result of the high interest rates. Hence, loan defaults will rise further. As a result, a housing market crisis similar to the one the United Kingdom was faced with at the beginning of the 1990s is imminent, as higher default rates entail forced sales which in

addition to the demand shortfall will place an additional burden on the overall market due to keener credit standards.

### Outstanding volume of mortgage loans/GDP, 1996-2005



Source: Hypostat, OFHEO, U.S. Census Bureau, calculations of Finpolconsult

### Undesirable structural developments in the U.S.

The present market developments bring to light structural problems regarding the regulation and promotion of the U.S. housing market and the financial system.

The U.S. housing policy's emphasis on interest tax deduction and credit insurance for homeowners and a simultaneous marginalisation of the rented housing sector account for the degree of a potential market crisis. Approximately 10% of U.S. households are homeowners, although, according to rational solvency criteria, they ought to be tenants.

In addition, the concentration on the above-mentioned instruments with the simultaneous absence of any form of promotion of saving at all contributes to higher credit risks even in the case of solvent homeowners.

The federal housing financiers, Fannie Mae and Freddie Mac, through their duopoly in the relatively secure middle-income market, force back private sector financiers to high-risk areas.

At the same time, the State is withdrawing from the low-income market, whilst in return the Freddie Mac agency is emerging as an important buyer of private sub-prime loans.

Furthermore, the regulation of the financial system is highly fragmented – just for housing credit, there are half a dozen agencies at federal level, all

independent of each other. Many brokers and financing companies in turn are scarcely regulated, if at all.

Together with the strong politicisation in what is a key credit market for the economy, this promotes a delayed reaction to risks. For instance, regulations for the new, high-risk products were drawn up only at the end of the past cycle, when it was too late. They now threaten to force the credit market into a recession through abrupt tightening up of the standards for new credit business.

In addition, in the course of the sub-prime market development, book-keeping and accounting problems are coming to light again. The transparency-based supervision by securities regulator SEC, which primarily supervises the disintermediation system, is proving not to be very effective.

Finally, the Federal Reserve System, too, has, under political influence, driven the credit and house price bubble via high expansion of liquidity, especially at the beginning of the cycle. However, an accompanying tightening up of financial sector regulations to cushion the risks to be expected from this policy, failed to appear.

### **Consequences for Germany**

Germany has reached a market phase in which the loan-to-value ratio has also risen significantly. This is occurring partly under the influence of new, often foreign suppliers, which pass on credit risks using securitisation models similar to those in the U.S., to non-bank financial institutions, such as private equity or hedge funds, and partly through the keener competition from universal banks funding with non-matching maturities, which forces product differentiation.

With the new suppliers, banks and savings banks, bauparkassen, mortgage insurance undertakings and the KfW (Development Loan Corporation), the supply side in the higher loan-to-value ratio market segment has become confusing and subject to varying regulations.

Germany should use the possibilities available to create consistent national regulations and, despite the U.S. experience, also force partial deregulation in this market.

This includes greater consideration of credit risk data, for instance on determining lending limits, liberalisation of the saving-for-home-ownership system, improved integration of insurance solutions, for instance in pfand-brief financing, greater use of securitisation, relaxation of the restrictions on the status of bank in individual cases and a general licensing system for the housing finance market in line with the British model.

However, international coordination is mandatory for a partial deregulation strategy. Credit risk prices have fallen sharply due to non-bank investors who are particularly ready to take risks in the high-risk tranches of securitised loans. This in turn might increase market pressure towards disintermediation and possibly destroys traditional business models. The

consequence would be precisely the reorientation of the credit risk coverage by means of banks, savings banks and bauparkassen towards origination for fees, which is essentially responsible for the present market situation in the US.

In addition, a regulatory response must be found to the increasing pressure to squeeze out lenders financing with matching maturities via cross-subsidisation by deposit-refinanced universal banks, which take high interest rate risks in the German fixed-interest rate market. This encourages higher-risk financing without good cause.

Moreover, consumer protection also offers an opportunity to neutralise particularly high-risk financing, for instance applying credit risk models that have been introduced in line with Basel II. Like that, non-banks, as investors, indirectly would also be subject to sensible banking regulations.

Finally, there tends to be backlog demand in Germany for servicing the near-prime and sub-prime market segment, despite the U.S. experiences. The German housing policy increasingly withdraws from the rented housing sector, but fails to privatise housing stock to tenants and to protect them against future tenancy risks.

Relevant credit programmes in the non-prime segment, too, would be more efficient and socially more equitable. As in the past, in many cases there is a lack of affordable credit offers for the self-employed and in economically weak regions, which is largely attributable to the lack of credit risk information and lack of suppliers who are prepared to assume risks. Credit and securitisation programmes of the KfW, which are more targeted than the previous ones, could help obtaining data.

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The study has been published in German by the ifs Institut für Städtebau, Wohnungswirtschaft und Bausparwesen e.V. in Berlin as issue 70 and can be obtained for € 19,50 (including value added tax and shipping). Please address orders to the domus Verlags- und Servicegesellschaft mbH, Klingelhöferstrasse 4, 10785 Berlin, Germany, call +49/30/590091-707 or send a fax to +49/30/590091-701. You may also send an email to [Sigrid.pfeiffer@domus-vs.de](mailto:Sigrid.pfeiffer@domus-vs.de) or order online visiting [www.domus-vs.de](http://www.domus-vs.de).