

## MANAGERIAL ACTION AND FINANCIAL CRISIS

Andreas Horsch\*

**Abstract:** Much has been written about the origins and contagious processes that led to the subprime crisis of 2007 first and to the financial crisis thereafter that characterize financial markets ever since. This retrospective is designed to illustrate that it has been human action in the very entrepreneurial or managerial sense that has caused the financial crisis to emanate and spread. From this viewpoint, responsible actors can be identified not only within financial intermediaries, but as bureaucratic and political entrepreneurs within public institutions as well.

**Keywords:** human action, financial crisis, financial institutions

JEL Codes: G 01, G 21, G 28

### Introduction: Human action, market process, and financial crises

From an institutional or evolutionary point of view, (market) *processes*, driven by *human action*, are of seminal meaning for the economy. As LUDWIG VON MISES put it,

“[...]the market is not a place, a thing, or a collective entity. The market is a process, actuated by the interplay of the actions of the various individuals [...] The market process is entirely a resultant of human actions. Every market phenomenon can be traced back to definite choices of the members of the market society.” [38][26]

Consequently, incidents like economic crises should be seen as part of market processes, too, driven by human action as well. However simple, yet fundamental this principle, economic crises are rare and complex, making it difficult to analyze them – and even more difficult to solve them today and to avoid them tomorrow.

Unfortunately, comments and actions of several parties until today suggest otherwise, preferably blaming (bank) managers and their “greed” while at the same time ignoring the importance of the actions of further players and the institutional framework they set. A necessity forgotten in the wake of this simplification and activism that characterize political actors in particular is to take

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\* **Andreas Horsch**, University of Technology Bergakademie Freiberg, Germany, Chair of Investment and Finance,

✉ corresponding author: andreas.horsch@bwl.tu-freiberg.de

stock of the events that already happened. Following the fundamental principle of DOUGLASS NORTH that “history matters” [41], this article deals with the beginnings of the crisis, as they are of seminal meaning for the understanding and subsequent economic crisis management also. Adding to the growing number of economic studies [50], the fundamental importance of *entrepreneurial* human action is worked out.

### **The meaning of entrepreneurial and managerial action**

From an economic point of view, human action is key to market processes, because it is *entrepreneurial* whenever executing distinctive *functions*, so that

“in any real and living economy, *every* actor is *always* an entrepreneur and speculator [...]. Economics, in speaking of entrepreneurs, has in view not men, but a definite function. This function is not the particular feature of a special group or class of men; it is inherent in every action and burdens every actor. [...] Entrepreneur means acting man in regard to the changes occurring in the data of the market” [58].

The entrepreneurial functions in particular include the identification and seizure of (new) arbitrating possibilities, making the “alertness to hitherto unperceived opportunities [...] the decisive element in the entrepreneurial function” [31]. The meaning of alertness unfolds provided that the entrepreneur transforms it into an *innovation* enabling him to profit, be it an innovative product, process, market(ing) or organizational strategy: By doing so, they become entrepreneurs by discovering and translating into action “new combinations” [46].

Admittedly, VON MISES make a certain distinction between the entrepreneurial and the managerial function by stressing that the latter does not but his personal wealth at risk, but acts merely as an agent of the other:

“A *manager* is a junior partner of the entrepreneur, as it were, no matter what the contractual and financial terms of his employment are. The only relevant thing is that his own financial interests force him to attend to the best of his abilities to the entrepreneurial functions which are assigned to him within a limited and precisely determined sphere of action” [58].

Indeed, this means that managers are entrepreneurs, too, however delegated and limited their entrepreneurship might be. Furthermore, being an entrepreneur is not limited to managers buying or selling goods and services on markets and on the behalf of themselves or their firm, but includes politicians as

well as bureaucrats, as they also try to gain positive margins between in- and output. Consequently, it is reasonable to treat them as political and bureaucratic managers or entrepreneurs [28][41].

Based hereupon, it is the (inter-)action of entrepreneurs of the various kinds that cause market processes as well as its institutional framework of rules and organizations<sup>3</sup> to unfold. As well as human action itself, market processes and institutional change happen continuously, thus continuously creating new economic opportunities. If and how these opportunities are seized decides how market processes will develop and in how far they will turn into a crisis. This general principle holds in particular for financial markets. For them, the meta-process leading to crisis can be illustrated along a flowchart showing the prototype of a financial crisis. Figure 1 contains its upper part:

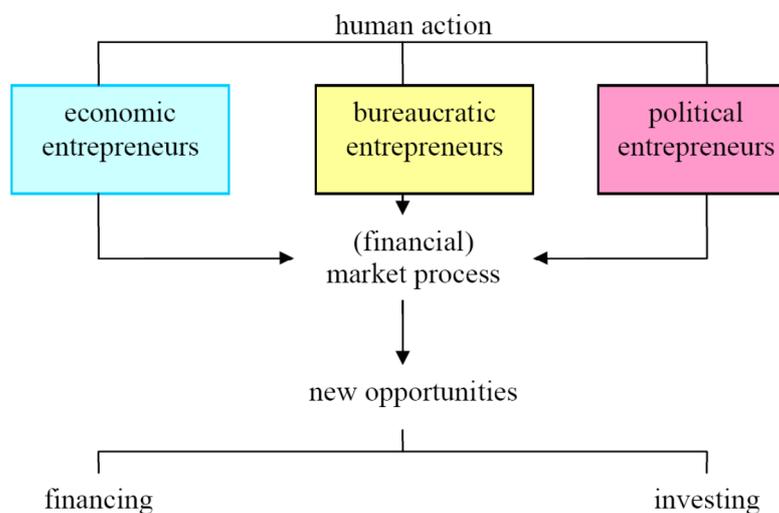


Figure 1. Crisis Flow Chart, upper part

This means that managerial and other economic, bureaucratic or political entrepreneurs set in motion market processes that first *lead* to new frameworks and thus opportunities, especially on financial markets. Thereafter, entrepreneurs (who are alert enough to discover them) will decide how to deal with those new opportunities, transforming their knowledge and expectations into action, thus causing new market processes and so on. Although this ever ongoing character of market processes complicates the identification of distinctive starting points, it is needed for any analysis and therefore given in the next part of this paper.

### Prehistorical processes of the financial crisis

Especially if regarding history explicitly, an economic analysis should consider the crisis' origin a first. Then, any subsequent diagnosis, therapy and prophylaxis would be easier if *the* starting point of market processes leading to new opportunities could be identified. Yet this one and only moment in time is hard to determine, because The current crisis is no result of a single action or event, but of a mixture of actions, processes and institutions, some of which occurred just, some of which occurred decades ago – without impairing their significance, as the prominent example of *Fannie Mae* shows: To cope with the consequences of the Wall Street Crash on Black Friday 1929, president of the US ROOSEVELT's *New Deal* political action included the institutional innovation of the rules of the *National Housing Act*. Among others, it led to the institutional innovation of *Government Sponsored Entity* organizations designed to support US-American banks and citizens at their homebuilding since 19384. Especially the very first of them, the *Federal National Mortgage Corporation* (= *FNMA* = *Fannie Mae*) was institutionalized to help solving the financial and economic crisis of the early 20th century. However, *Fannie Mae* and its later counterparts (like the *Government*

*National Mortgage Association* = *GNMA* = *Ginnie Mae* or the *Federal Home Loan*

*Mortgage Corporation* = *FHMLC* = *Freddie Mac*)

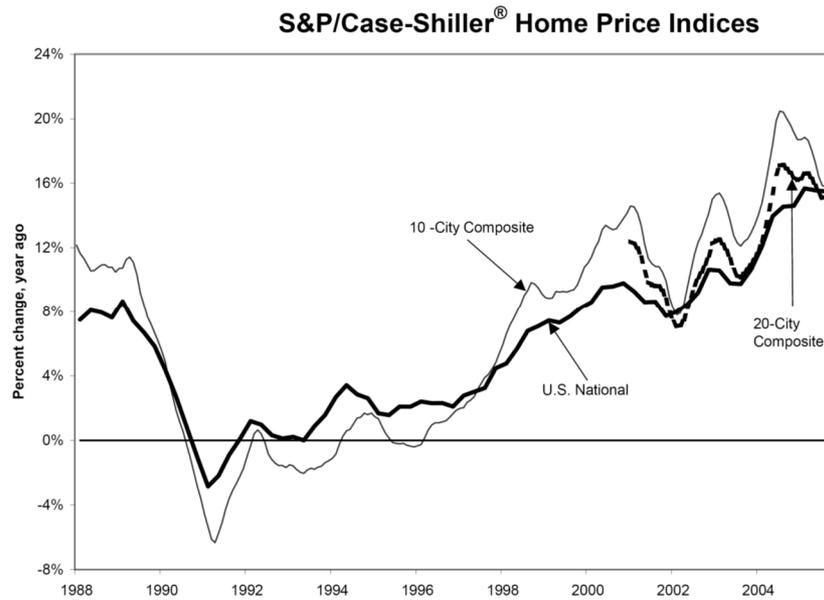
turned out to be among the institutions which caused or transferred the crisis of the early 21st century, turning them into an example of unwanted side effects or “unintended consequences” of institutional change [41] and a long-time origin of the current crisis.

Regardless of the importance of long-term connections in general, it seems reasonable to share the general consensus about the relevant starting point being more medium- or short-term: market processes of debt financed US homebuilding since the 1990s and its institutionalized support by political and bureaucratic actors. Relevant institutions encompassed rules (e.g. tax law) as well as organizations (e.g. the GSEs named above) encouraging homebuilding<sup>6</sup>. Their impact was enhanced by further measures taken by actors in federal institutions that were designed to lower interest rates and thus provide sufficient volumes of liquid funds at affordable prices, but accidentally contributed to the current crisis by providing an opportunity for bank managers to offer housing finance to customers of other than first class creditworthiness. This shifting of liquid funds to *subprime* borrowers was so massive and significant that the general loss of value of these mortgages gave the crisis its name as well as origin [34][8][2][16][33]. However, as these loans represented a small fraction of U.S. or even global financial markets [44][56], they could lead into global financial

turmoil only because processes and institutions of this market were interconnected with those of others, making *contagion processes* possible.

Contagion describes knock-on market processes which can be observed on markets in general and on financial markets in particular<sup>7</sup>. In general, it means the process of a risk or crisis of one (preferably: banking) firm (region, country, industry) A infecting the liquidity or/and solvency of further firms (regions, countries, industries) B, C, ... because of interfirm (interregional, international, inter-industry) connections via a “domino model of contagion” [2]. Although an original problem could remain limited to the region, country or industry where it originated, it regularly spills over to others due to human actions taking place within the institutional framework. Since 2007, financial contagion has been definitely ignoring borders of Any type: Domino movements occurred between types of risk, lenders, borrowers of one nation first, nearly any financial institution in the world hereafter and non-financial industries and even sovereign debtors until today [34].

Regardless of allegations made by certain actors, especially political ones, this process was driven by the action of the various types of entrepreneurs pursuing their distinctive functions. During market processes before and after the subprime crisis, mistakes were made by any type of entrepreneurial actor, managerial among them as well as political ones. Retrospectively, two major preconditions of the current crisis can be identified: rising home prices and lowered interest rates [35][33]. The housing demand of U.S. citizens has been supported by political institutions from the beginning explicitly and economically, lately by “intense cheerleading from the White House” [22][14][16] in particular. The dominant idea of allowing anybody to live in his private home had strong effects on the institutional framework and its incentives for human action. Not surprisingly, the US housing market showed several price rallies over the last decades. After smaller real estate bubbles during the 1980s and 1990s, the rise in real home prices that started at the beginning of the 21st century happened to be the biggest in U.S. history, as for example the 8-year-period from 1997 to 2005 shows, which saw a rise of real home prices of an average of about 70% according to the *Case-Shiller-Index* [49].



**Figure 2. Rising Home Price Indices 1992 – 2004**

*Source: Standard & Poor's (2007)*

Not any rise in prices means a *bubble*, but those which develop constantly over a long period of time, thus opening a gap between market price and fundamental values of the good priced<sup>8</sup>. The *Case-Shiller-Index* shown above was designed to reflect developments of this kind as it shows not the growth of market prices, but the positive (upward curve) *growth of the growth rate* of real estate prices<sup>9</sup> (vertical axis) over time (horizontal axis), making real estate an increasingly attractive investment opportunity. Consequently, a growing number of actors became attracted, yet particularly the private households' participation was limited by scarce financial resources. Temporarily, this problem of volume could have been solved by a low price level.

Fortunately for numerous actors in the short run, but unfortunately in the long run, financing in fact became affordable due to the actions of bureaucratic and political entrepreneurs who set the base rate of funding. The US Federal Reserve as well as the European Central Bank supported the bubble by expansive monetary strategies they pursued after 9/11 and the new-economy-bubble in order to spur economic growth [20]. The low price of central bank money as illustrated by the Fed Funds Target Rate below (see fig. 2) backed up housing finance because bank managers now could raise the money for their lending business

cheaply – and shared their low cost with borrowers/homebuilders to some extent. As figure 3 shows, the Fed Funds Target Rate dropped significantly (from 6.5% to below 2%) in 2001 and further fell to a mid-term minimum of only 1% in June 2003. This allowed for (banks financing) homebuilding on a low-cost-basis and attracted an even growing number of actors to participate, so that “[l]ow mortgage rates have been the essential fuel for this run-up in home prices” [5].

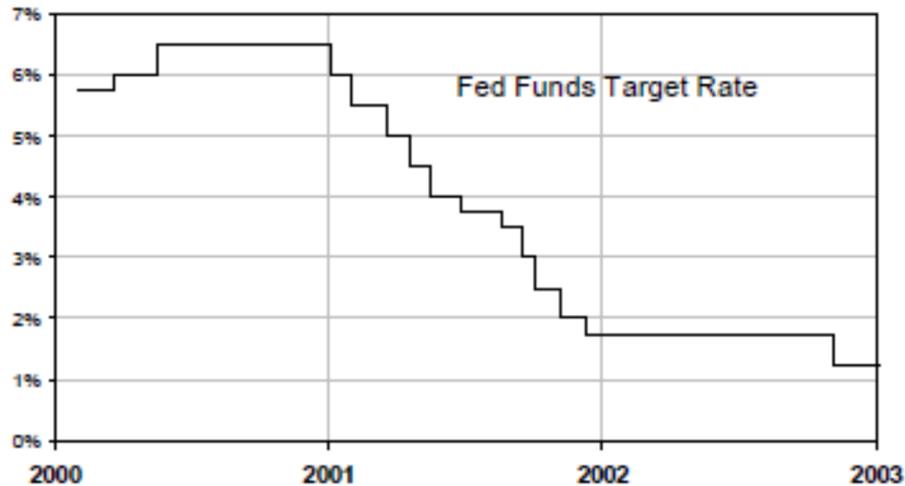


Figure 3. Lowered Interest Rates

Source: Based on data taken from [www.federalreserve.gov/fomc/fundsrate.htm](http://www.federalreserve.gov/fomc/fundsrate.htm).

This pricing policy turned out to be the classic central bank managers' contribution to market processes leading to the crisis, as "Speculative manias gather speed through expansion of money and credit or perhaps, in some cases, get started because of an initial expansion of money and credit" [30][63]. The combination of continuously rising home prices and affordable debt capital for real estate financing created new financing *opportunities* for homebuilders as well as new investment *opportunities* for bank managers and other investors. To set the market process in motions that finally resulted in a crisis, human actors were necessary who *alertly* identified and seized these opportunities. The critical question was how the actors would manage them. Necessarily, they had to adapt to them with only *limited knowledge* [25] concerning the opportunities and their uncertain sideeffects and consequences. Consequently, misguided adoption strategies and general management failures (by any type of entrepreneur) were inevitable. Combined, they can lead to an *endangered financial system*, as figure 4, the middle part of the crisis flow chart, illustrates.

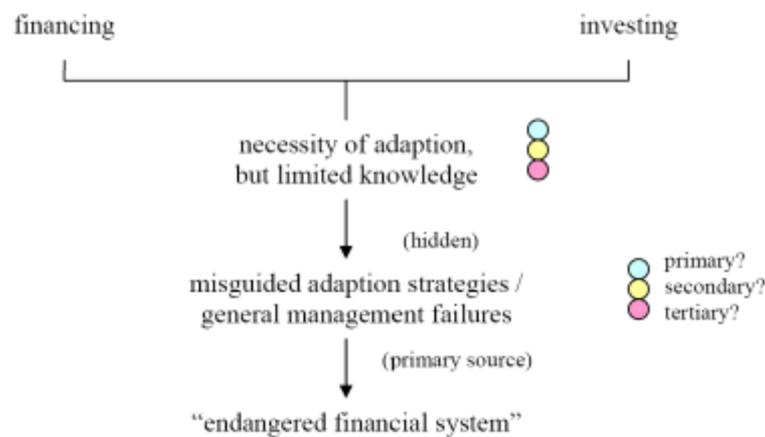


Figure 4. Crisis Flow Chart, middle part

Today, it is obvious that too much went wrong during the adaptive market processes, because there always are innovators and “early adopters lack the training and capacity to safely operate the new machinery” [15].

#### New opportunities and management failures

Admittedly, bank managers introduced a number of questionable innovations by addressing new customers/markets with new products [20], but this would not have promised the necessary arbitrage without paralleling development driven by other entrepreneurs:

- Higher house prices mean that less people can afford to buy a house at first. However, especially political, but also other entrepreneurs wanted them to do so – or even better build one. Managers of financial institutions could help by providing affordable contracts designed to allow customers to invest in real estate who would have been unable to do so based on traditional loans [18]. The managers did so because of chances of arbitrage, as the central bank provided money at the aforementioned low rates. The new widespread ability to pay the higher price – although based on borrowed money – helped to stabilize demand so that house prices did not drop but continued to rise [56].
- As home prices spiralled upward, they posed a strong incentive for any manager trying to arbitrage on real estate markets. Consequently, the US at the same time experienced a *construction boom* that would inevitably lead to excess supply [16][5].

#### Subprime-mortgage lending

New *markets* meant new customers, i.e. that bank managers addressed an increasing number of *subprime-loan-debtors* in particular. Their subprime-loans were named after either / or the (1) creditworthiness of debtors, (2) (value of the) collateral, (3) legal and economic features of the loan (especially the information it is based on) or even (4) (credit portfolio of the) lender, with (1) to (4) being positively correlated<sup>10</sup>. Consequently, it is sufficient to connect “subprime” with creditworthiness, meaning debtors suffering from tight liquidity and only decent wealth even in good times.

Special about the early days of the evolution of the crisis was that political entrepreneurs encouraged household and bank managers alike to engage in homebuilding and its financing: The cheaper the banks’ money supply (fig. 3) and the more favourable the value of collateral (fig. 2), the more attractive the arbitrating opportunities appeared which even a subprime loan offered – for a private homeowner/entrepreneur as well as a bank manager. Temporarily, while the bubble built up, the arrangement seemed to be risk-free-yet-profitable for both parties: Banks provided funds of  $x$  for

- *homebuilders* who used them to build their house costing about  $x$  – due to their financial background, subprime loaners’ equity participation was down to a record low [5] – or
- *homeowners* with another current loan exposure, who nevertheless “wanted to take some equity out of his home in order to put an addition on the house, send a child to college, or buy a new car” [56].

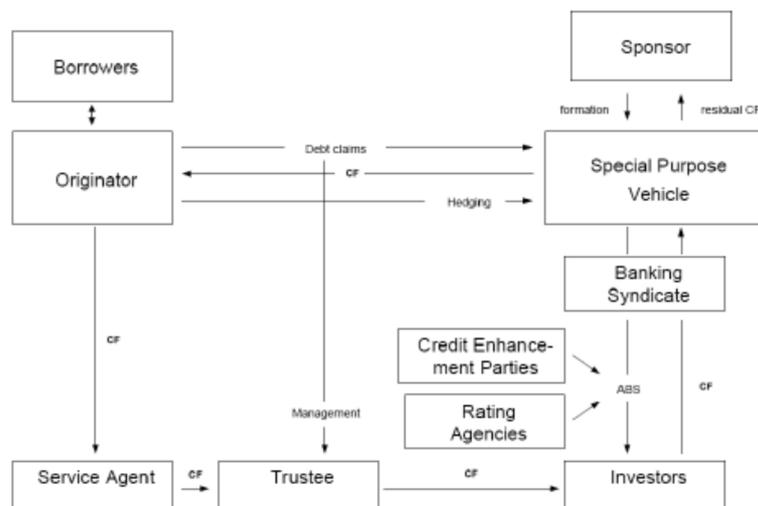
Due to the price bubble, the property had a value of more than  $x$  even while the loan was amortized and before the building was finished. Thus, the banks’ risk exposure seemed more than bearable as the loss given default apparently would be zero as long as collateral value exceeded exposure. Although cancellation of loans was unlikely, debt-servicing-ability of borrowers remained a topic. It was addressed – in a misguided and misleading way – by the terms of borrowing.

New *products* meant newly designed loan contracts, including adjustable rate mortgages (ARMs) in particular, often granted to subprime borrowers. ARMs were not considered a problem by debtors as interest rates were long time low. Thus, they were willing to accept them as well as grace periods without repayment of principal, initial “teaser” rates and “2/28” schemes of two initial years of fixed (low) rates, followed by another 28 years of flexible (and probably higher) rates [35]. Although some bank managers used to the uncertainty would perceive the credit risk and withdraw, yet too many reacted faulty as they ignored or simply overlooked the risk and finally took it. Some even more “greedily” focused on chance and neglected risk by reducing lending standards, for example

by allowing for mortgages exceeding the house price or applicants rating their own creditworthiness [14][8][40]. Sanctions of this managerial action by regulatory authorities or market discipline was limited due to a backdoor disposal possibility for unwanted loans which decades ago had been arranged: the possibility of a *securitized* resale of mortgage loans both directly to capital market investors or to specialized GSEs first – and by them to capital market investors hereafter<sup>11</sup>.

### Subprime-Securitization

The main actors of *securitizations* are originators, investors and a special purpose vehicle (SPV). The original (mortgage) loans are sold by the originator to the SPV, which raises the necessary funds by issuing a special type of bonds, practicing “originate and distribute” [43][8][15][44]: As it will acquire and own just the one pool of assets it buys from the originator, the SPV in general and its debt service in particular depend on the cash flows of these assets. The *securities* owned by the SPV-investors thus are *backed* only by those *assets*, making them *Asset Backed Securities* (ABS). Normally, the informational asymmetries within this basic structure discourage investors. As investors and especially the SPV lack the resources necessary for reliable screening or signalling processes, third parties taking over this part have become essential for the issuing of ABS: specialized informational intermediaries known as rating firms<sup>12</sup>. They provide evaluations of creditworthiness (“abilities-to-repay-properly”) which allow investors to judge the risk-return-position of ABS investments. The investors mainly trust an SPV based on ratings given to their ABS by a rating firm. If the original loans sold to the SPV are (possibly: subprime) mortgage loans to private households, the ABS become *mortgage backed securities* (MBS), whose investors own securities whose debt service cash inflows depend on the ability of the borrowers to meet their interest and repayment obligations [34]. Figure 5 illustrates the position of rating firms and further financial intermediaries assisting within this basic structure as well as the fundamental importance of the original borrowers’ ability to pay.



**Figure 5. Basic Structure of ABS Financing Transactions**

Besides the banks, the GSEs already mentioned acted as originators of MBS- issues. Having to support private homebuilding and –owning, GSEs like *Fannie Mae* and *Freddie Mac* traditionally acquired large portions of the mortgage loans outstanding. To raise the funds necessary, their managers were the first who identified and originally seized this opportunity to enlarge sources of debt capital. Since then, the GSEs have always been among the biggest issuers of ABS, so that about 50% of US-mortgages were securitized by *Fannie Mae* and *Freddie Mac* just before the crisis started to unfold<sup>13</sup>. Due to economies of scale, GSEs were able to mobilize large capital flows – at reasonable rates, as risk premiums were kept extremely low due to the governmental background of those institutions [19][16].

Already when issued by a bank directly, even more when by a GSE having bought the securitized loans from a bank first, even a single ABS-/MBS-Financing is more opaque than standard corporate financing<sup>14</sup>. This seemed to be aggravated by managers of institutions involved who felt the incentive to conduct hidden action of improper accounting and cash and risk management [19]. Unfortunately, the problem of insufficient transparency increases, when SPV-investors are not regular (private or institutional) investors, but institutions that are created solely for the purpose of MBS purchases. Then, the initial SPV itself is funded by 2nd-level-SPVs (conduits) which raise the funds necessary by issuing “squared” [53] or 2nd-level-ABS [i.e., (MBS)BS] that are sold to 2nd-level-investors and so on. Henceforth, chains of securitization transactions evolve that lead to “an opaque web of interconnected obligations” [8][60][40 altogether, as figure 6 illustrates.

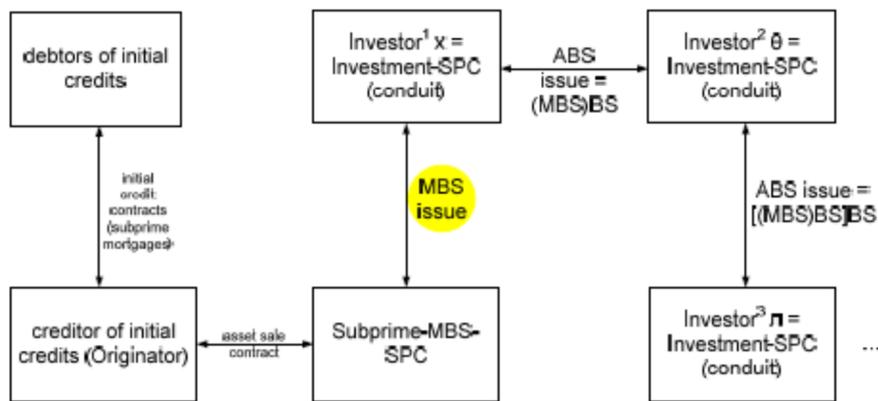
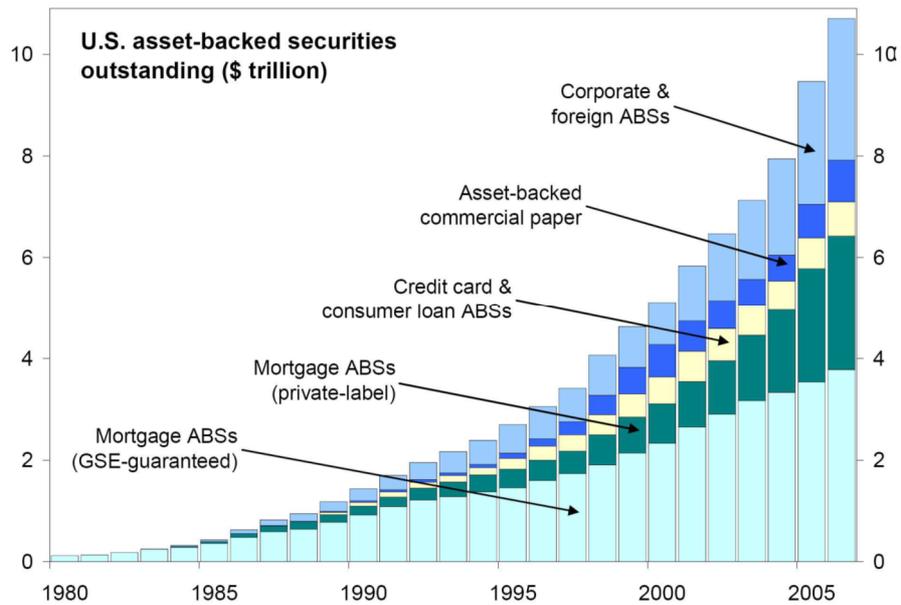


Figure 6. Multi-Stage Securitization

The loss of transparency due to this multi-stage securitization combined with insufficient liquidity and default risk management along the securitization line created significant risk potential especially for the last investor in line, who still – although indirectly and hardly visible – depended on the original debtors. Furthermore, in a violation of the true-sale-principle of pure ABS, actors often were tied to an originating bank, be it by legal or reputational means [70][20], meaning that further financial institutions were in fact tied to the securitization line and bound to be affected by liquidity risk. Contagion thus would be more widespread than expected from the beginning and it would materialize as soon as original debtors failed to meet their debt service obligations. The volume of contagion prone mortgage-based ABS was far from being a *quantité négligeable*, but rose and became substantial until 2006, when about 6.5 trillion USD securities depending on US homeowners were outstanding (see figure 7).

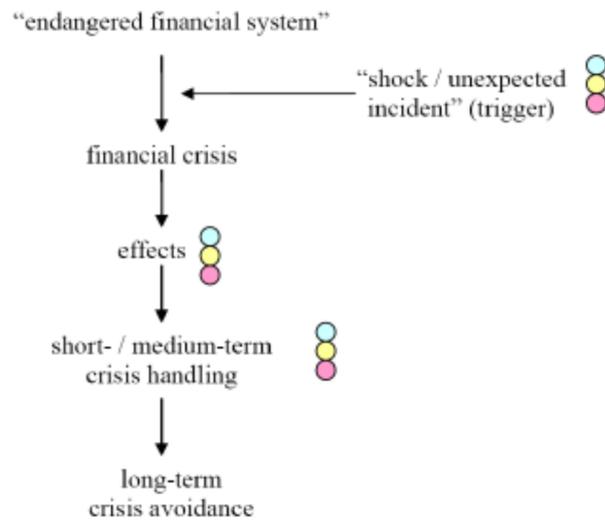


**Figure 7. Volumes of Contagious Securities**

*Source: BHATIA (2007), p. 4 / Board of Governors of the Federal Reserve System.*

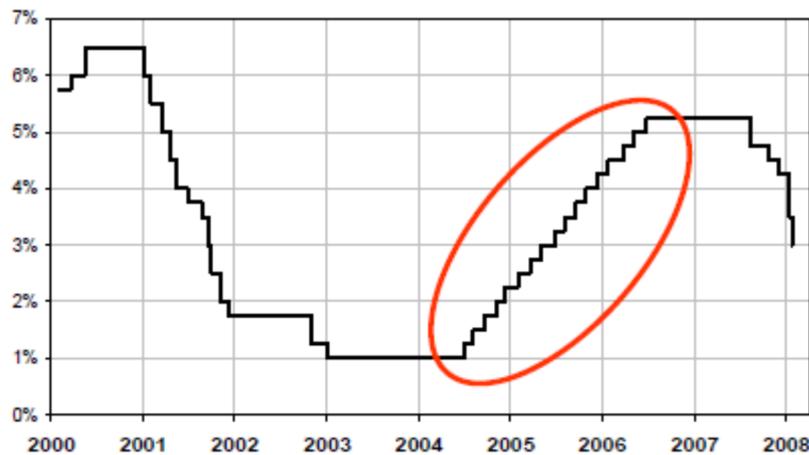
### Triggers of contagion

The volume of 6.5 trillion USD stands for the housing bubble and thus the endangered financial system in numbers<sup>15</sup>. The fragility resulted from the system being based mainly on the liquidity, real estate values and creditworthiness of US-homebuilders. Nevertheless, the system worked for years – until triggering events destabilized it, leading the endangered financial system into financial crisis, as figure 8, the lower part of the crisis flow chart, illustrates [50].



**Figure 8. Crisis Flow Chart, lower Part**

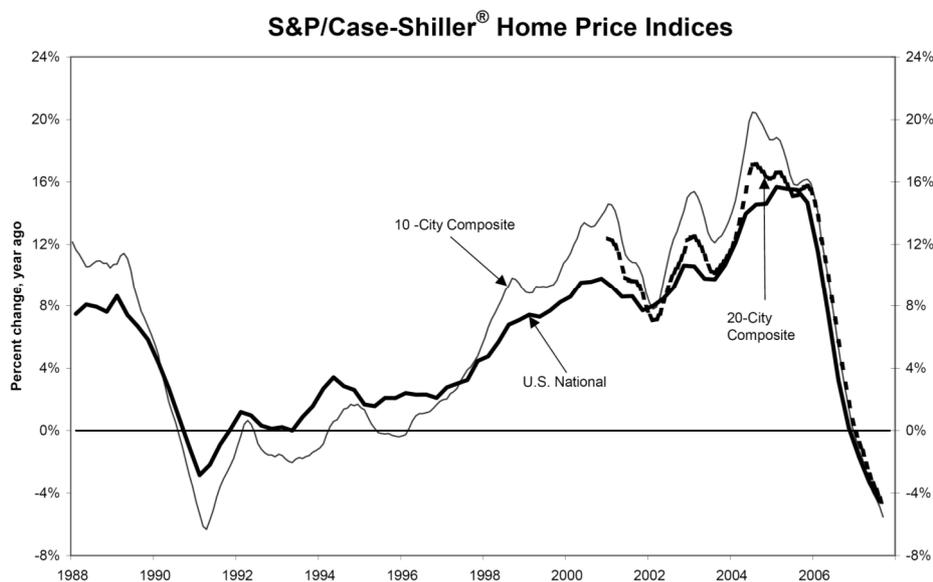
Regarding the financial crisis since 2007, there was no single financial market trigger, but a combination of mid-term price developments<sup>16</sup>. One half of these triggering market processes were rising interest rates. A completed version of figure 2 shows the step-by-step increase of the Fed Funds Target Rate from mid-2004 on, that ended at more than 500% of the 2003/04 low at mid-2006 already.



**Figure 9. Trigger: Rising Interest Rates**

*Source: Based on data taken from [www.federalreserve.gov/fomc/fundsrate.htm](http://www.federalreserve.gov/fomc/fundsrate.htm).*

Due to the popularity of initially fixed-rates, this development remained widely ignored by actors involved, although it endangered future abilities to pay significantly [40]. Higher interest rates with a time-lag endangered the ability to pay of homebuilders, but without necessarily leading to their insolvency. Debtors unable to pay would be able or even forced by the bank to give up the building instead, this collateral or default representing kind of a put option [16], or to sell the property and use the revenue to amortize outstanding debt. As long as the home price bubble lasted, collateral values were more than sufficient to cover the obligations. Unfortunately, interest rates reaching their maximum were accompanied by a sharp decline in home prices. At the beginning of the year 2006, there already were signs that the U.S. housing market was cooling. At first due to the oversaturation of the market, the deflation and final burst of the bubble were increasingly brought forward by a growing number of homeowners failing debt service and thus having to sell collateral, further gaining momentum in mid-2006 [20][33][18], as figure 10, the completed version of figure 3, illustrates.



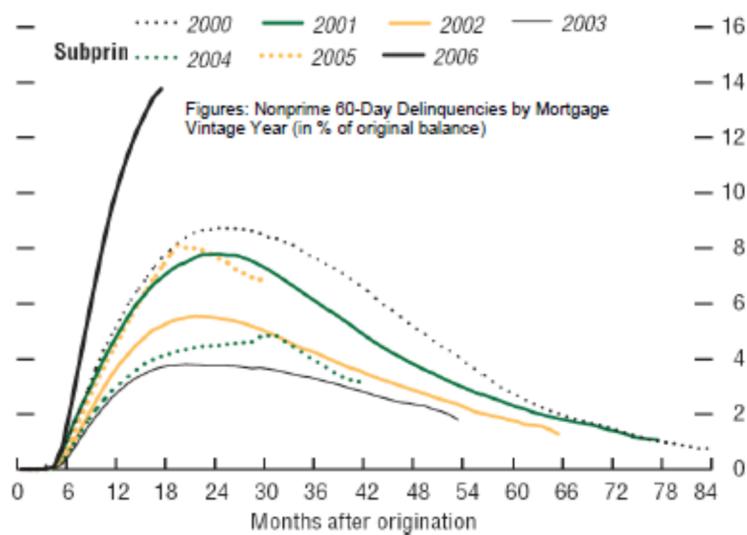
**Figure 10. Slumping Home Price Indices since 2006**

*Source: Standard & Poor's (2007).*

Homeowners and bank managers alike found themselves trapped: Homeowners had to face liquidity problems due to increasing debt service payments as well as the deterioration of their personal wealth and creditworthiness due to declining home prices. Consequently, a growing number of debtors failed in serving their debt and delivered collateral worth only a part of

their outstanding debt, triggering liquidity and solvency problems for the banks involved [8]. Figure 11 shows that in 2003 after 12 months only 2.5% of loans were not paid on time. This number grew up to 11% and quickly reached more than 20% in 2006 [14][35][56].

Now, bank managers found themselves in a predicament, having to weigh waiting anyway (and risking an even more severe liquidity problem) against accepting the collateral. Waiting meant further uncertainty, cancelling a loan meant getting possibly worthless collateral instead. Looking for the better of two evils, bank managers went for either solution, with the combined effects of withholding / withdrawing of liquid funds on the one hand and of asset sales on the other meant spreading the disease of liquidity shortage and book value deterioration through the financial system: contagion had finally started.



**Figure 11. Non-Performing Mortgage Loans**

*Source: IMF, 2007, p. 7.*

### Contagion processes

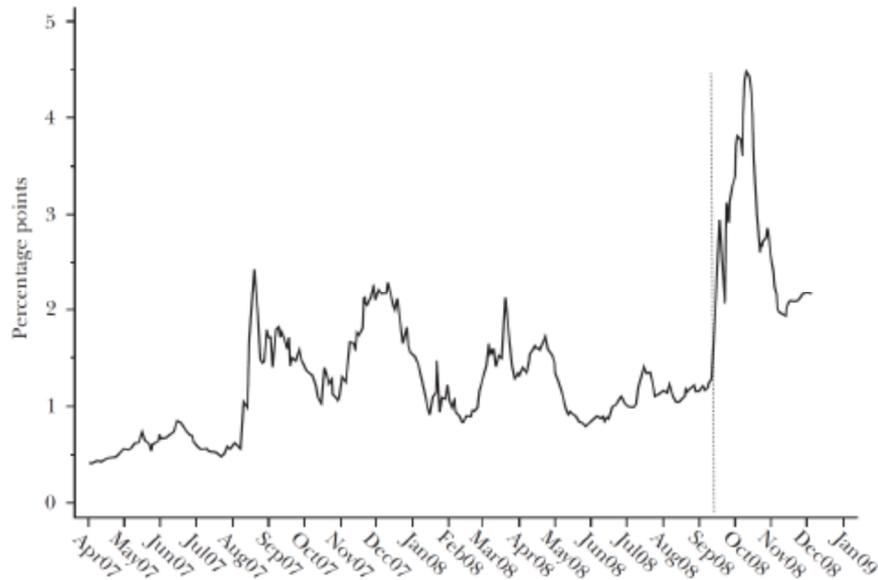
After spreading from homeowners to their banks, further to other banks contracting with the original ones, and to investors worldwide who had purchased securities being backed by the mortgage loans that now started non-performing, contagion proceeded via shortages of liquidity and book values of the banks involved. With the original borrowers ceasing to pay, MBS-investors no longer received payments of interest and principal. Simultaneously, this meant that the ABS-markets were infected, too, as the value of those MBS deteriorated. Once

more, the contagion emanating from this “prime vector of contagion” [34][2] was twofold, materializing via liquidity as well as (market and thus fair-value-book) values. Early victims of the crisis were banks that held large MBS-exposures via conduits. Well-known European examples were German *IKB – Deutsche Industriekreditbank AG* and state-owned *SachsenLB*, who were obliged to SPVs of remarkable– especially compared to the banks’ total value of assets – size, or British *Northern Rock*, a former building society meanwhile relying on an aggressive (i.e. creditworthiness-negligent) expansion strategy, a significant maturity mismatch, and securitized liabilities, which consequently was severely hit by scarce liquidity and demand for this type of fixed-income-securities [8][11].

Fortunately, the combined intervention of national banking industries and central banks could restore trust among bank customers for the time being, although especially *Northern Rock* subsidiaries had experienced widely observed *bank-run-phenomena* [40]. While these well-known examples remained isolated cases without cross-border or even global side-effects during the autumn of 2007, contagion was spreading through the financial system beneath the surface: On the one hand, it worked on the liquidity level, because investors become increasingly reluctant to invest in new MBS-issues. The effect hereof was widespread, as conduits preferred long-term investing of short-term funding, meaning a permanent issuing of revolving short-term MBS, and a respective risk of missing follow-up financing [8][21]. Without liquid funds provided by capital market investors, conduits were forced to fall back on contingent capital provided by originators. Fulfilling their recourse obligations, these banks experienced cash-outflows the management had not planned for, thus opening liquidity gaps in parts of their regular business [2]. Via the interbanking market, already this liquidity shortage affected more and more banks. The problem of liquidity shortage was aggravated by the contagion resulting from *market price risk* on the other hand: The breakdown of the U.S. housing / mortgage market also meant deteriorating cash-flow-projections of MBS already issued.

Especially due to fair value accounting, owners of those older securities had to write off, causing a cut in profits or even a loss for the bank, reducing their creditworthiness and thus their possibilities to raise fresh money at affordable rates. After liquidity and market values, a third and even more infectious line of contagion evolved: *distrust*. It began to build up between bank managers first, so that the market for interbank liquidity started to run dry, because “Banks in general began to ‘hoard’ liquidity” [40][20]. This process was decisively accelerated by September 15, 2008, when the U.S. federal administration decided not to rescue one of the biggest and well-known investment banks of the country: The non-bail out of *Lehman Brothers* turned out to be a precedent emitting signalling effects and raising confidence concerns among financial market actors worldwide which had been fundamentally mistaken [24]: The bankruptcy seemed

to justify deepest and omnipresent managerial mistrust. After “Lehman Brothers failed in September 2008, liquidity demands surged as counterparty concerns trumped everything” [52]. Consequently, risk premia on debt markets began to rise broadly and significantly, as figure 12 illustrates for the interbanking market.



**Figure 12. Credit spreads for interbank money**

Source: Based on BRUNNERMEIER, 2009, p. 86 (Data: Bloomberg)

Although regulatory innovation to cope with the crisis passed U.S. Congress in early October 2008, mistrust had begun to encompass private depositors since late September, when the failure of *Washington Mutual* had made the exposure of personal savings to the financial crisis evident. The bank was closed by governmental institutions and in an emergency sale transferred to *JP Morgan Chase* to avoid an insolvency placing the burden on the community of U.S. citizens and taxpayers [12]. Therefore and because political entrepreneurs had learnt the lesson of the *Lehman* debacle, this large bailout was even more undisputed than others, for example the one of *American Insurance Group* that had spectacularly misjudged the risk-return position of bond insurance within ABS markets: “AIG’s unhedged sales of nearly half a trillion dollars of insurance represented a significant concentration of credit risk in a market participant that ultimately did not have the necessary loss absorption capacity. The widespread bond defaults during the recent crisis imposed substantial losses on AIG and other sellers of credit risk insurance” [10]. With their voters unmistakably involved, numerous political (and bureaucratic) entrepreneurs had sprung into regulatory action. Retrospectively, the governmental actions of the autumn of

2008 helped to stop the contagious processes among financial market actors. Instead, crisis effects shifted to currency markets first, inducing a search for “safe havens” [36] and to the general economy and to sovereign debtors thereafter, where they are visible ever since.

### **Entrepreneurial action and regulation**

Altogether, the financial market processes seem prototypical from the initial bubble on, as bubbles in general are a series of “initial discoveries or breakthroughs, widespread adoption, widespread investment, and then a collapse where prices cannot keep up and many investors lose a lot of money” [22]. Furthermore, they show that this losing of money is due to managerial and other entrepreneurial misjudgements and adaption strategies. While the respective mistakes made by bank managers are not only beyond doubt, but discussed extensively, the meaning of the human action of bureaucratic and political entrepreneurs remains neglected. However, it is worth mentioning because of its significance prior to 2007/2008 as well as thereafter.

Before the crisis, institutional change driven by bureaucratic and political entrepreneurs not only fostered the aforementioned incentives on housebuilding, especially price developments. Further institutions that have to be evaluated much more critical since 2007 are those of fair value accounting and model based risk measurement that bank managers were obliged to perform [8]. Since 2008, financial markets have seen numerous initiatives driven by managers of firms as well as by further types of entrepreneurs in governmental institutions. Unfortunately, early successes of their emergency crisis management fostered additional forms of (cross-)contagion, when political competition began to work. This (1) spill-over to the political sector was encouraged by the crisis (2) spilling over from the financial to the real sector of the economy, from banks to further financial institutions, further industries and especially further economic sectors, in particular private households, when

- liquidity and asset value problems of the financial sector forced intermediaries to cut liquidity provision and financing transactions with other industries also;
- liquidity and asset value problems of private households began to reduce consumer spending, what affected most industries for another time.

No longer limited to financial institutions and their managers, the market process of the crisis now significantly gained importance: With their voters affected, political and bureaucratic actors felt encouraged to show their respective managerial competence: “During an economic crisis, governments naturally feel compelled to do whatever is necessary to fix the current problem” [50]. However,

if their action *is* necessary or if a political actor just *thinks and says* so, is already questionable. Another question is, for which *purpose* it seems necessary. Being entrepreneurial human actors, politicians and bureaucrats thereby would act for their personal rather than the social benefit. Without calling it entrepreneurial explicitly and regularly, this self-interest constitutes the foundation of individual-interest theories of regulation (for a seminal elaboration, see [58]. In pursuing a self-interested strategy, “officials [...] are as eager as anyone else for entrepreneurial ‘profit’ in the broadest sense of the term” [31]. In particular, politicians are motivated to please voters, hence win elections, enabling them to gather functions and positions which generate a higher and less uncertain income compared to the one of a non-elected.

Regulations that appear to save citizens from the negative consequences of important events they do not comprehend and protect consumers from presumably over-priced or poor quality products and services are understandably popular with voters and, hence, with politicians. [...] Politicians who adopt laws and regulations that appear to achieve these goals are likely to be rewarded by voters.” [6].

Analogously, bureaucrats strive for career enhancement to enlarge their salaries’ size and certainty, as well as their personal independence [55]. It would be naïve to assume that these incentive structures would disappear by a financial crisis. On the contrary, economists therefore should expect politicians and bureaucrats to recognize a crisis as a rare opportunity to foster their career by positioning themselves as successful mastering the current and avoiding a future crisis. To put it differently, crises will enhance individual-interest considerations at least as much as public-interest ones. In pursuing their individual concepts, political entrepreneurs hence are endangered at least as much as any human actor to succumb to an illusion of sufficient knowledge, while in fact “man [...] cannot acquire the full knowledge which would make mastery of the events possible” [25]. So they will inevitably act imperfectly, too.

Since 2007, most political entrepreneurs prefer to point their finger at managers in general and bank managers in particular. While they repeatedly have judged them for making use of the opportunities for innovative, arbitraging human action not only outside, but also within the given regulatory framework, they much less criticize their own class of entrepreneurs for the inappropriateness of the framework which they themselves had set in the past, nor do they take into account that remarkably often it were not unregulated, but badly regulated or even state-owned institutions that were involved [44]. Unfortunately, the reputation not only of financial managers, but of financial theory and even the principles of a free market society in general have been affected so severely that politicians try to claim the desire of the people for a *primacy of politics* (*over*

*economics*). Based hereupon, they view themselves acting as the only ones able to master the crisis in the public interest – Chile in fact acting as personal political entrepreneurs.

Early successes further contributed to *political overconfidence* materializing in political actions that will have long-term effects: Since 2007, we observe another contest of reregulation based on the overconfident assumption that this political action will avoid future crises. Nevertheless, this is and will be an illusion: Current re-regulation is based on current crisis experience, so that designers and executors of new standards Draw conclusions from the past about how the future will be, although “this hindsight can be misleading in planning for the next crisis” [24].

### Conclusion

While history matters in general, and the history of crisis matters in particular, its analysis – including this paper – cannot provide certainty. On the contrary, economic analysis proves that the current one is a serious, but yet another one of a succession of crises, as “history demonstrates that the cycle of financial crisis followed by regulation, followed by a new financial crisis, followed by new regulation, has continued unabated” [60]. This process of reacting and counterreacting human action of market, political and bureaucratic entrepreneurs is so institutionalized that it has been named the *regulatory dialectic* [29] thirty-five years ago already. What we observe since 2007 is just another proof for the appropriateness of this view. Problem is, however, that regulatory responses take place in the same environment of uncertainty as any other human action. In fact, human action – being driven by free human will, human knowledge and decision – and uncertainty are inseparable:

“The uncertainty of the future is already implied in the very notion of action. That man acts and that the future is uncertain are by no means two independent matters. They are only two different modes of establishing the same thing.” [38][26].

However, this means that the present round of re-regulation within the regulatory dialectic is characterized by necessities of adaption, but limited knowledge also, so that further misguided strategies and faulty managerial action (see fig. 4), now taking place on the political and bureaucratic level, are to be expected. The more overconfident political actors become, the more of *pretence of knowledge* in the HAYEKIAN sense they are going to show (by ignoring the knowledge of others), the more serious their mistakes will be. Being discredited by those political entrepreneurs since 2007, economists and managers alike are in no ideal position to work against these processes of the regulatory dialectic and their inherent

dangers publicly. Besides trying to do so anyway, recommendable entrepreneurial and managerial action would consist of analyses of which arbitraging human action the new regulations are likely to cause and the attempt to anticipate which kind of market and – sooner or later – crisis processes they will cause. Because if anything can be called certain, it is that the next economic crisis is inevitable.

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- [57] Italics added by author. Von Mises had already developed this view in the German predecessor of "Human Action"; see Von Mises, 1940, pp. 245-250, especially p. 246: "If in economic science we speak of entrepreneurs, we do not mean individuals, [...] but a function [...]. We separate and personify this function by speaking of the entrepreneur." (translated by author).
- [58] The works of Von Mises' disciple Israel Kirzner stand as seminal on the meaning of alertness, see also *ibid.*, pp. 141-142, 148-151. For a detailed appraisal, see also High, 1990, pp. 52-54.
- [59] Besides this pragmatic definition of institutions, it has to be admitted that groundbreaking publications define them as rules only and organizations as a different type of being, see North, 1990, pp. 4-5.
- [60] See Fischback Et Al., 2011, for a recent evaluation of federal responses to the crisis of the Elary 1930s, and Sellon/Van Nahmen, 1988, for a short history of these GSEs. On their recent domination of the U.S. mortgage market, see Degennaro, 2008, and also SAMUEL, 2009, pp. 251-252.
- [61] This interconnection represents a repeated pattern: On the meaning of the crisis of 1929 and its regulatory consequences for the S & L debacle of the 1990s, see White, 2004. In brief on further "unintended consequences" of regulations subsequent to the 1929 crisis, see Hahn/Passell, 2008; and also Benston, 1998, pp. 67-68.
- [62] See, e.g., Frankel, 2006, on US housing finance in the 21st century. On the meaning of tax law and GSEs, see also Ellis, 2008, pp. 17-22.
- [63] See, at length, Allen/Gale, 2000. Upon the current crisis, see also Longstaff, 2010, pp. 437-438 (further references); Allen/Carletti, 2008, pp. 8-10. A more sceptical point of view shows Benston, 1998, pp. 36-43.
- [64] Particularly on housing bubbles, see Case/Shiller, 2003, pp. 299-300; also Baker, 2006; Shiller, 2006. More general and theoretical, see Sheinkman/Xiong, 2003, esp. pp. 1184-1186.
- [65] See, e.g., Goodhart, 2008b, p. 355. Remarkably, this index is named after Robert J. Shiller, protagonist of *behavioral finance*, who after (he forecasted) the dotcom-crisis began to frown at this very development of US home prices, see Case/Shiller, 2003, especially pp. 303-304 on the index' history. Unfortunately, one characteristic of a bubble is that early warnings are ignored.

- [66] On the problems of defining subprime properly as well as on the fact that “it was not just subprime”, see Ellis, 2008, pp. 13-15. See also Demyanyk/Van Hemert, 2011, p. 1853; Frankel, 2006.
- [67] See Frankel, 2006, p. 77, who states that the “key initial condition was the existence of institutions with a recognised capacity to invest in mortgage pools and structured finance securities”. On this process as a “moral hazard chain of behaviour”, see also Samuel, 2009, pp. 253-254; Longstaff, 2010, p. 439. See also Ellis, 2008, pp. 21-22; and – extensively – Purnanandam, 2011.
- [68] Seminal theory work on the *raison d’être* and effects of “information gathering agencies” has been conducted by Millon/Thakor, 1984. See also Greenbaum/Thakor, 2007, pp. 39-76, on solutions of informational problems by different types of (financial) intermediaries. Regarding credit rating institutions, they definitely should be called *firms* instead of *agencies* from an economic point of view. The latter expression serves the illusion of a governmental or otherwise non-profit institution, Chile rating firms are owned and led by entrepreneurs and managers aiming at profits. On their role prior to the financial crisis, see Goodhart, 2008a, pp. 337-338.
- [69] See Degennaro, 2008, p. 20; also Greenbaum/Thakor, 2007, pp. 346-347; Frankel, 2006, p. 67, on the “dominant role of the government-sponsored housing finance agencies”.
- [70] On the meaning of this lack of transparency for the crisis’ process, see e.g. Adelson/Jacob, 2008, pp. 14-17; Chick, 2008, pp. 120-121; Eichengreen, 2008, p. 22; Rudolph/Scholz, 2008, p. 16. In the case of MBS, especially the uncertainty of cash-flows due to premature repayment was crucial; see Degennaro, 2008, p. 21.
- [71] On further statistical information, see e.g. Longstaff, 2010; Mayer/Pence/Sherlund, 2009, pp. 29- 35; Adelson/Jacob, 2008, pp. 14-16.
- [72] On top of the financial market developments described, the beginning of the general economic slowdown added to the evolution of the crisis, as especially unemployment would impair subprimeborrowers’ ability to pay. On unemployment and further macroeconomic factors, see Mayer/Pence/Sherlund, 2009, pp. 44-47; also Demyanyk/Van Hemert, 2011, p. 1864; Samuel, 2009, p. 242.
- [73] This first autumnal approach has to be distinguished from the original regulatory “Paulson Plan” of the Department of the Treasury, see Paulson, 2008. For an early analysis of this concept, see Samuel, 2009, pp. 243-247.

#### DZIAŁANIA KIEROWNICZE I KRYZYS FINANSOWY

**Abstrakt:** Wiele już napisano na temat pochodzenia procesów, które doprowadziły do kryzysu typu sub-prime w roku 2007, i kryzysu późniejszego którego skutki do tej pory są odczuwalne na rynkach finansowych. Przedstawiona w niniejszym artykule retrospektywa została zaprojektowana w celu zilustrowania iż przyczyną kryzysów było działanie człowieka bardzo przedsiębiorczego lub na stanowisku kierowniczym,

spowodował on kryzys finansowy aby móc się dalej rozwijać i prowadzić działania. Z tego punktu widzenia, podmiotami odpowiedzialnymi są nie tylko pośrednicy ale także biurokraci czy polityczni przedsiębiorcy w instytucjach publicznych.

### 管理行动和金融危机

**摘要：**在许多文献中已经有所论及导致2007第一次贷危机和其后的金融危机的起源和传染过程。这次回顾性分析是说明：作为企业家或者管理者的人类本身行为导致金融危机的产生和传播。从这个角度来看，负责任的行为者不仅存在于金融中介机构，也存在于官僚和政治企业家以及公共机构