

Foreword

The global economy has been hit repeatedly by financial crises during the last two and a half decades. Economists are wondering about the reasons of the malfunctioning of financial markets. Numerous potential reasons have been advanced. For example, speculators are looked upon as mayor suspects. There basically "evil" activities seem to be the predominant driving force producing instability in financial markets and real markets as well, for that matter. The recent subprime crisis and its global ramifications are taken as evidence for the destabilizing effects of financial speculation. Scepticism surrounding money and financial markets goes back to classical economists and was even reinforced by neoclassical and monetarist theories. The financial sector, in general, was supposed to put a veil upon the real economy thus concealing the really important features of the economy. Moreover, the financial sector is supposed to be a source of inflation thus putting additional destabilizing pressure on the real economy.

James Tobin amplified the list of negative impacts to be derived from the financial sector on the basis of his "depletion hypotheses": This hypothesis holds that the unproductive financial sector deprives the real sector from financial resources that otherwise could be invested productively, e.g. by building production plants. Tobin argues that the seductive power of the financial sector offering a great variety of seemingly high-return assets withdraws financial resources from the real sector thus reducing growth, employment and social welfare. He further argues that the financial sector, by luring investors with the promise of high-yield and low-risk investment opportunities, will redirect human resources away from the real (productive) sector into the (unproductive) financial sector. Making money by engaging in speculative activities in the financial market seems to be more attractive than dedicating oneself to productive and maybe arduous work in the real sector economy.

Moreover, during the most recent financial crisis the process of financial innovation was identified as a potential source of instability: Financial innovation can be observed as "new" (innovative) financial products but it can also appear as innovative strategies of investing and risk management in financial markets. Mayor destabilizing potential was presumed to go along with the so called structuring of financial products and, in particular, with the securitization process. Asset Backed Securities (ABS) is a case in point. In general, they are launched by Special Purpose Vehicles (SPVs) which are not easily understood and play a rather obscure role. The lack of transparency in financial markets leads to a severe loss of confidence in the market.

The broad criticism of financial markets leads to an underestimating of the doubtless merits of structured finance and securitization. Financial markets take care of gathering and allocating financial resources efficiently. At the same time they are also supposed to allocate risk in an efficient way. This means that efficient risk allocation is supposed to be indispensable for optimizing social welfare. Thus, it seems to be pretty unfair to point the finger at structured finance, securitization and at derivative instruments in general, if it comes to find devices responsible for the repeated outbreak of financial crises. It seems clear that the introduction of new innovative financial products cannot proceed free from operational and conceptual flaws. It is no surprise, either, that these products sometimes are put to uses they originally were not intended for. Take options as an example: They may be used as hedging instruments; that is what they have been devised for originally. But they can also be used as a speculative vehicle enhancing risk instead of curbing it. This may be qualified as a perverted application, but it should be clear that without the existence of speculators a hedger generally could not find the counterparty necessary for arranging risk protection or even risk elimination. It may happen that two hedgers are offering risk protection to each other so the intervention of a speculative agent is dispensable. But there is no guarantee of available risk protection in a speculation-free environment.

It is a well-known fact that without the availability of protection against risks in real-market or financial-market transactions agents would cancel many economic activities all together. This fact gives a legitimate foundation to the insurance industry. Insurance companies, by offering protection against a great variety of insurable risks and charging moderate premiums, pave the ground for engaging in the production of goods and services. Without adequate risk protection many of these activities would not be undertaken. Good examples are risks of liability and risks of material damage, for example by fire or theft. It is also a well-known fact that many essential and highly damaging risks are not covered by any insurance companies. Coverage is offered only for risks that show no correlation - or only a low-level correlation - between the insured clients. So called speculative or cumulative risks are highly correlated and thus are excluded from coverage.

This means that protection against the risk of unemployment or the risk of losing money in case of a stock market crash will not be insured. Unemployment risk generally is covered by national agencies funded by the national budget. The risk of price change, for example the change of stock prices or interest rates, can only be covered on the capital market itself. The market has created a broad variety of instruments, derivative instruments in particular. They offer the protection denied by insurance companies. To be sure: Speculators are the agents offering this protection. This constitutes sort of a financial market paradox: Allegedly harmful speculators seeking unjustified profits by asking money for doing nothing turn out to be the vital pillars on which social and economic welfare rests.

It is no surprise that this sort of competition is not welcomed by insurance companies. They dislike being identified as business partners that refuse to contract when things get tough. And, of course, they do not want to leave the ground to speculators who on average seem to earn considerable profits. Thus, insurance companies are fiercely searching for possibilities of somehow turning risks that usually are considered as uninsurable into insurable risks, even at the expense of engaging in some sort of cooperation with speculators. The idea was spurred further by the insight that cooperating with speculators might be a good thing even in those segments of the traditional insurance business that tend to get out of control in case of terrorist attacks and natural catastrophes. There is no doubt that the insurance industry has discovered capital markets as powerful partners for their own business. To put it differently: The capital market turned out to offer reinsurance protection to primary insurers.

The idea to use capital markets as a cushioning mechanism had produced manifold instruments and risk transfer schemes. They have come to be potential suspects for causing the recent financial crises that finally deteriorated into a global economic crisis of formidable dimensions. It is no surprise that the collapse of global economic activity led to a high degree of scepticism with respect to those innovative products and schemes. Banks offering a helping hand in developing the necessary instruments for an alternative risk transfer understandably came under pressure because public opinion turned its back on them. Moreover, they put themselves under pressure because they used these instruments abundantly for speculative trading on their own account. Thus, they not only got blamed for inventing the "mass destruction devices" - a term that is attributed to Warren Buffett - but they themselves turned out to be victims of their seemingly noxious products. Nevertheless, banks have the necessary expertise and for that reason will play a vital role in establishing an alternative risk transfer process from insurance companies to the capital market. At the same time banks could take advantage of opportunities to offer complementary services to insurance companies in the traditional field of Investment Banking.

In his research study, Mr. Weber analyzes the risk transfer of the insurance sector into the capital markets using Insurance Linked Securities (ILS). Special focus is on the role of the banks in the process. After the introduction, the second chapter of the study starts by describing the basic insurance economics like the definition of risk, insurance mathematics, asset-liability-management, and asset management. Chapter three explains the different types of insurance companies. Methods of risk transfer are the topic of the fourth chapter. While traditional risk transfer is taking place within the insurance sector, the different methods of Alternative Risk Transfer (ART) are effected among primary insurers or reinsurers and the capital markets. ART can be used in the form of risk carriers, finite solutions, side-cars, derivatives traded at exchanges or over-the-counter, contingent capital, and multi-risk products. A special form of ART are ILS as described in the fifth chapter of the study. ILS are used to transfer risk from life insurers, but also from non-life insurers. Life-related ILS are used to cover US reserve requirements, to pre-finance earnings or to transfer pandemic risk. Catastrophe bonds are the most popular form of non-life-related ILS. They cover perils like storms, earthquakes or wildfires. Collateralized debt obligations (CDOs) as a special form of securitization are analyzed further. CDOs are used to bundle subordinated debt financings or reinsurance claims. Chapter six analyzes interviews with market participants. The interview partners are categorized into the following stakeholder groups: Accountants and regulators as the first group emphasize the differences of the European and US systems. Value-at-risk and expected shortfall being their main risk measures are therefore described in detail. Insurers and reinsurers forming the second group explain their motivations to sponsor ILS, especially in the context of their asset-liability-management. Duration and convexity as the main instruments to measure interest rate sensitivity of assets and liabilities are described. Further, the usage of hybrid bonds for capital management is explained. Rating agencies, risk modelers, and monoliners form the third sponsor group. They are playing an important role in standardizing products in capital markets. Their approach, especially their way of modeling risk is analyzed. Investors, the fourth stakeholder group are interested in non-correlated returns and a high level of transparency. They need effective trigger mechanisms to avoid adverse selection and moral hazard. Arrangers as the fifth stakeholder group are obliged to provide an effective pricing of ILS, especially compared with the reinsurance products and to find appropriate investors in the products. Whenever adequate, the interviews were used to explore the relevance of banks for the stakeholders. Chapter seven of the study analyzes an online-interview providing an overview of the market during the challenged environment at that time. Further, participants were questioned about their function in the ILS market, its prospects, and the role of the banks. Caused by the financial crisis the market was changing rapidly and extensively from closing of the interview phase end of December 2008 until finalizing the study end of June 2009 as recapitulated in Chapter eight. The work ends with Chapter nine including the summary and conclusion.

Weber's analysis of alternative risk transfer systems clearly closes a gap in the field of insurance and capital markets. The subject treated is of high practical and theoretical significance. Risks of all sorts seem to be steadily increasing. Market price volatility has reached an unprecedented level, catastrophe and terrorist risk also has grown up to dimensions that cannot be handled by insurers alone. So it is a logical step to include capital markets as partners of the insurance industry in order to spread risks on a large scale basis. The role capital markets can play in the managements risks that are difficult to insure or not insurable at all on the basis of traditional insurance standards has long been ignored. The work of Weber must be seen as one important step to a better understanding of this role. Weber shows that capital markets can offer hedging opportunities far beyond the scope that agents have been familiar with so far: Capital markets can help to allocate risk to a much bigger extent than could be expected so far. They virtually can act as powerful reinsurers and thus complement reinsurance activities emerging from the insurance sector itself.

The pioneering work of Weber provides a convincing and straightforward analysis of the possibilities to transfer risks from insurance companies to the capital market. It is shown how the transfer business can be supported by banks and what role can play instruments created on the basis of securitization. It is quite remarkable that already many practical schemes and devices have been developed on a trial and error basis by insurers and banks. This process has been going on practically unobserved by scientific researchers. Weber's study pinpoints the research gaps and hints at some possible approaches to close these gaps. It is a "must" reading for practitioners as well as students and researches of insurance and finance.

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