The impact of institutional investors and increasingly sophisticated financial instruments on risk and leverage

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THE IMPACT OF INSTITUTIONAL INVESTORS AND INCREASINGLY SOPHISTICATED FINANCIAL INSTRUMENTS ON RISK AND LEVERAGE

(fragment of the book:: "*Managers and owners on the capital market, crisis in company management*", to be published soon)

A report prepared by the economists of the Bank of England in 2009 shows that the entire growth of bank profits in 2007 resulted from increased leverage. A similar situation occurred in many other financial institutions and enterprises. This method of improving the results is clearly associated with an increased risk. Wages of managers depended, therefore, upon taking ever-greater risks, not necessarily from the perspective of managers, but certainly from the perspective of companies they manage.

The Chief Financial Officer of a small company in Poland, in the sector of railroad rolling stock (Feroco), belonging to Zbigniew Jakubas, made decisions that led to losses on forex options in the amount of PLN 147 million (ca. US$ 50 million). Not wanting to lose the company Jakubas has had to give 36% of the shares of BRE Bank as partial repayment of obligations resulting from the options. The CFO has been subjected to disciplinary action and fired for damages, and a lawsuit has been filed against him as well, demanding payment of an amount equivalent to the losses on the options. It is obvious that there is no chance to obtain such compensation, but this is a signal to managers that they can be liable for their decisions. The fired CFO defends himself stating, that the Board of Directors knew everything about his actions, but did not prevent him as earlier these transactions were profitable. The Board of Management, in turn, argues that its members previously did not know about the transactions concluded with the banks by the CFO. The company's lawyers intend to prove in court that the manager ran a speculative game having nothing to do with the company's basic operations. Since the company did not export its production, there was no need whatsoever to hedge foreign exchange risk. As the value of Polish currency suddenly decreased during the second half of 2008, many companies found themselves in a similar situation. This led some politicians to propose that all forex option transactions be retroactively cancelled by parliamentary act.

According to J. Stiglitz, "... the financial markets did not manage risk, they created it"[1]. From a so prominent economist, one would expect a more balanced opinion. **It is, in my opinion, evident that financial markets have provided many tools that made risk management possible. It is obvious as well that financial markets created a lot of very risky instruments, that – while risky – made achieving very high rates of return possible during many years, but that also led in certain situations, to bankruptcies of companies and crises**. There is nothing extraordinary about this statement. The long known simple relationship between risk and return makes itself evident.

One might quote the words of Cassius "It's our human imperfection that is the cause of how imperfect things are, my dear Brutus. We cannot shed the responsibility on destiny. "

The volatility of capital markets is often blamed on the activities of institutional investors, or an excessive amount of financial instruments. It must be remembered that there are different institutional investors. Some of them play a very useful role without having a negative impact on the stability of the capital market. The same is true various instruments, many of them play a useful role. Many companies have long used derivatives to hedge against business risks, using them to manage fluctuations in exchange rates, interest rates, commodity prices, etc. To a large extent these are unregulated instruments, over the counter financial products (OTC) used in bilateral transactions. After the outbreak of the crisis, financial intermediaries were regarded by many as the main culprits. Under the proposed new regulations the idea to transfer compulsorily many of these instruments to the stock market, standardize and subject to supervision by clearing houses. The regulations proposed by the Barack Obama administration and the European Commission, however, could lead to a increase in cost of these instruments, and in some cases even eliminate them[2]. Many companies would have to open new credit lines banks, which is not

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[1] Joseph E. Stiglitz, "The crisis will force a global reform ', Dziennik Gazeta Prawna Nov. 22, 2008.

[2] If, for example, a Deputy Prime Minister and Minister of Economy in a certain country proposes to introduce a bill that retroactively dissolves binding forex option contracts concluded between themselves

always easy, but certainly is expensive[3]. Consequently, this could reduce hedging against certain risks. The use of standard contracts will prevent the use of "hedge accounting", or the exemption of companies from the obligation to include in their P&L's the results of involvement in derivatives, whose value is often very variable. Derivatives[4] used in hedging make it possible to increase the value of the company, to reduce the risk of large losses at a charge. Often banks before granting financing require the conclusion of transactions that will reduce foreign exchange risk. The conclusion of such transactions may also affect the cost of borrowed capital. Reducing credit risk, one can obtain better terms from the bank. Companies may in this situation to focus on their core activities rather than struggle with the effects of abrupt changes in exchange rates or interest rates. **It is crucial therefore to determine the extent to which a developing capital market contributes to reducing the various risks and in what circumstances leads a risk increase.**

It is frequently indicated "*innovation in the financial sector often involving the creation of obscure financial instruments, gave rise to the current problems in the markets*"[5]. Instead of helping to better manage existing risks, these instruments brought along entirely new risks. New financial instruments facilitated carrying out large-scale arbitration, hedging, and speculative operations. Sophisticated financial engineering associated with derivatives often gave a false sense of security of transactions (spreading risk) leading to a significant increase in such transactions.

This applies for example, to the previously mentioned securitisation, namely the possibility of conversion of loans, advances and other receivables into securities. For instance, the sale of a mortgage loan owed to a bank to another entity, in the form of a security backed by this mortgage, is a good example. Such loans were often sold in larger

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by private parties, it is not only embarrassing, but outright dangerous. Speaking in such a situation about increasing the state's role may lead to worse consequences than the current crisis.

[3] J. Grant, R. Milne, A. Duyn, Companies defend derivatives, the Financial Times, reprinted in Dziennik Gazeta Prawna, Oct. 16-18, 2009.

[4] Derivative is a component of the derivatives market, rather than the capital market. However, due to the different linkages between these markets they are worth a few words.

[5] Ryan Timothy, Statement of the President of the Association of Securities Industry and Financial Markets (SIFMA), The Wall Street Journal Polska, "Czy sector bankowy doprowadził do kryzysu", 23/09/2008, p.8.

packages to specialized financial institutions[6]. Due to their construction, such instruments must be labelled as so-called derivatives (synthetic instruments). Mortgage banks, through the sale of a part of their assets to funds, investment banks and to insurance companies, decreased their risk spreading it between more players. The increasing number of instruments and their increasingly complex nature made proper valuation, and consequently risk assessment difficult. This applied not only investors, but also to supervisors and rating agencies. In the case of derivatives, there are often many intermediaries. In this situation, an investor who is at the end of the chain of intermediaries has no contact with the debtor and cannot monitor his situation.

In recent years the already mentioned, so-called short sale, also evolved very dynamically. It is hard to call this instrument a financial innovation because of its very long history, but it is nevertheless worth mentioning because of its impact on the functioning of capital markets and businesses. Short selling allowed many capital market participants to achieve high returns, often at the expense of other players on the market. When betting on a decrease in market prices, profits could be achieved only when the markets were volatile. And when the markets were stable, they had to be de-stabilised through various activities. I do not think, however, that eliminating or reducing this instrument would be justifiable and would bring the desired results.

It is also important to say, that many new instruments were created in response to various restrictions imposed on movements of capital. These instruments were an attempt to circumvent these restrictions. The regulations often do not kept up with innovation on the capital markets. Too severe restrictions may lead to the transfer of risk to entities not subject to such regulations, operators unprepared to manage such risk.

The special role of investment banking

Investment banking plays an important role in the development of capital. This type of banking may be defined as activities of financial institutions on the securities market. It can therefore include securities trading, asset management, preparation of public offerings of securities, organization of mergers and acquisitions, consulting, and operations in the

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[6] In the U.S. it is mainly the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation (Fannie Mae and Freddie Mac).

derivatives market. Investment banks are institutions specialized in the provision of those services. Issuance of companies' instruments is usually carried out through the investment banks. They have become one of the most important intermediaries in securities trading.

Investment banking emerged in the U.S. as a consequence of the Glass Steagall Act of 1933[7], that forced banks to separate commercial and investment activities. A similar solution was adopted in 1948 in Japan[8]. Investment banks intermediate between the securities issuers and investors. Their focus is on capital market and securities. Investment bankers help companies issue new shares in the primary market. They also act as brokers on the secondary market.

An investment bank acting on the primary market functions largely as an advisor to the issuer and the distributor of issued securities. On secondary markets it acts as a broker dealer safeguarding price stability and liquidity of securities. Investment banks also engage in investment advisory activities, asset management and portfolio management. Another type of activity is financial advice, including advice on mergers and acquisitions.

The globalisation of financial markets has led to the rapid development of investment banking. There are new tasks and opportunities for additional revenue. This includes the transactions in M & A (mergers and acquisitions) and placing debt and stocks in international markets. Deregulation has contributed to the release of new financial instruments. Investment banks began to offer complex derivatives tailored to the individual needs of clients (investment funds and large companies). Such instruments allowed them to obtain much higher margins.

Another important element of investment banks' activities was securitisation. The development of the market for these instruments was spurred by the liberalization and increased competition, but mostly by more stringent rules on capital adequacy and valuation of non-performing loans, forcing banks to move their operations to off-balance sheet transactions.

[7] It was a very restrictive law, prohibiting natural and legal persons to simultaneously engage in investment and commercial banking activities. The value of debt securities a commercial bank could buy on its own account was also significantly reduced, and commercial banks were forbidden to insure the issue of securities (other than government and municipal bonds). The aim was to restrict speculation in financial markets, prevent conflicts of interest and restore confidence in the banking system.

[8] In contrast, inter alia, to Germany, which kept a universal bank model.

Investment banks have also contributed to the emergence and spread of risk monitoring systems, but while facilitating the transfer (sale) of risk, they contributed to easier acceptance of excessive risks.

Another area of investment banks' activities is privatisation. They offer advice on privatisation methods and organise placing of shares on the stock exchange or on the private market (non-public).

The rationale for the existence of investment banks may be their positive impact on **transaction costs**. In the theory of property rights transaction costs[9] are defined as expenses that arise at the exchange of services when determining, transferring and enforcing rights to dispose of property. Neither classical nor neoclassical finance theories justify the existence of financial intermediaries such as investment banks. Classical theories are confined to characterising different instruments and the financial markets. They do not contain any explanatory elements. Neoclassical model combines a picture of the ideal capital market with an abstract knowledge of the institutions of that market[10]. In the absence of transaction and information costs, and with identical investors' expectations about the size of profits and risks related to the securities, and assuming the lack of impact of funding decisions on the market value of firms, investment banks become unnecessary. Market participants, acting reasonably, will not pay for such services.

In order to conclude transactions on the market, it is necessary to bear two types of costs:

1. Costs related with initiating the transaction: the negotiation, execution and supervision of the contract, these are ex ante costs,
2. Ex post costs - the cost of administrating, negotiating and monitoring the production effort in the management structure11.

If transaction costs are significant, it pays to "interiorise" transactions within own organizations, if they are negligible, then the market offers different possible solutions.

The existence of investment banks as intermediaries in the securities issue is considered reasonable if the costs involved are lower than in the case of direct relations between the investor and the issuer. Better knowledge of the market resulting from experience of

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[9] The concept of transaction costs was introduced in the 1930s by R. Coase.

10 Jacob A.F., Klein S., Investment banking. Emisja papierów wartościowych, fuzje i przejęcia, Poltext, Warszawa 1998, p. 29.

[11] A. Sulejewicz, *Niezwyczajne przedsiębiorstwo*, „Prawo i Gospodarka", April 6, 1998.

carrying out such transactions many times, and better relations with investors could lead to such benefits. The same information can be used for many transactions and many clients. This is especially important in a situation of high cost of obtaining such information. This is the benefit of scale, i.e. decrease in fixed costs per unit. Intermediation of investment banks may therefore lead to a reduction of transaction costs on the capital market for the partners of the transaction[12].

The existence of investment banks with an established reputation can reduce the potential conflict between on the quality of reported information between the capital supplier and capital user. Companies seeking capital and willing to lower the cost of its acquisition are interested in giving out good information only, hiding whatever might hinder raising capital. This situation is not favourable for investors. One of the important factors leading to financial crises was just the transmission of inaccurate information. It is also considered one of the main causes of the Asian crisis.

Functions performed by investment banks to this quick development of these institutions, perhaps even faster than the entire capital market. Their importance and their assets grew rapidly. At some point, no big company was able to issue its shares on international capital markets, without having a reputable investment bank for advisor.

The role and importance of investment banks is best certified by their income, which showed a very strong momentum of growth. Annual revenues of the largest investment banks reached the level of tens of billions of U.S. dollars.

Excessive greed of investment banks and their willingness to take excessive risk has had, however, to lead to a crisis.

The current financial crisis, which began[13] on the mortgage loan market, has caused huge problems for the biggest investment banks. Lehman Brothers went bankrupt, JP Morgan absorbed Bear Stearns, and Goldman Sachs and Morgan Stanley to defend themselves against the problems turned into universal banks.

These problems are a consequence of investments financed by loans, excessive in relation to equity of the investment banks. When the market situation was stable, this

[12]A.F. Jacob, S. Klein, op. cit, p. 30.
[13] Began in the sense of the impact of its disclosure. The reasons which led to it occurred much earlier.

allowed investment banks to achieve huge profits[14], but even a small market failure had to lead to serious problems. When capital adequacy and leverage ratios exceed 30, as was the case with some of the largest investment banks, a few percentage points of decrease in the value of managed portfolios leads to losses exceeding equity.

It is worth mentioning that the investment banks in the U.S. are not subject to such regulations as the retail banks. They could therefore take much greater risks and leverage themselves up (increase the ratio of assets to equity) to a much greater extent. They were not subject to capital adequacy ratios, unlike retail banks.

Greed or the desire for maximum profits were always associated with economic activity (market), but previously a major control mechanism against excessive greed existed - it was the risk taken by the owner of the capital. This raises the crucial question – what disabled this rather strong restriction?

The globalisation of financial markets leads to a rapid spread of adverse effects to other countries. In Europe, many institutions (Credit Suisse, UBS) also excessively used leveraging.

How much demoralized some CEO's have become is best illustrated by the expression of one of them. **"We are doing God's work"**[15] – these were the words used by the CEO of the investment bank Goldman Sachs in an interview with The Sunday Times. It was supposed to be a justification for the huge bonuses paid to managers of that institution. The bank was founded in 1869 by a German immigrant Marcus Goldman and his son in law Samuel Sachs. Already at the beginning of the twentieth century the bank operated in the field of organization of public offerings and marketing companies on the stock exchange. In the 1980s Goldman bought J. Aron & Company and the Company has expanded the activities into trade in raw materials. The Bank has been a leader in introducing many innovations. It employed graduates of top schools, including mathematicians and physicists who have created increasingly complex financial instruments[16], and became a world leader in the trading of securities, currencies and commodities, and financial advisor

[14] The principle of valuation of investment properties at market prices used in accounting allowed the rapid increase in the value of the securities valued, improved the performance of investment banks and led to an increase in the salaries of managers of these institutions.

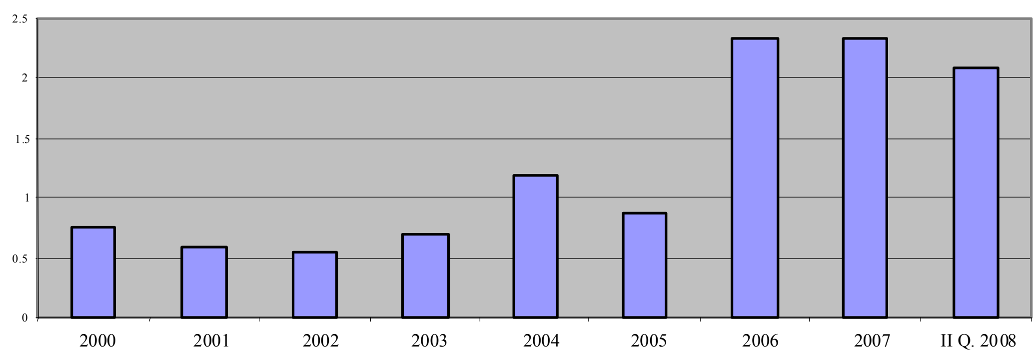
[15] History knows many people believed to be. It never ended well for them, neither for those who had to bathe in their divinity.

[16] Warren Buffett was among those who warned against the models, based on historical data, created by young doctors of physics.

to the largest companies in the world. Employing 30 thousand staff it manages assets worth over 800 billion U.S. dollars.

Rapid improvement of financial results in 2006, 2007 and the first half of 2008 was a consequence of greatly increased leverage. When the results began to improve rapidly, all rejoiced, without ever reflecting what is the cause and how sustainable is their nature.

Chart 1. Goldman Sachs profits, Q II, U.S.$. billion



Source: Goldman Sachs.

After the collapse of Lehman Brothers in September 2008, Goldman Sachs also found itself in a difficult situation. The U.S. government came to rescue, extending a loan of $ 12 billion, at an interest rate of 23%, and the bank raised another $ 10 billion by selling a 15% stake to Warren Buffett. The loan was quickly repaid. Several months later, the bank's profits have risen substantially, and it announced the payment of bonuses exceeding 11 billion U.S. dollars to its managers.

Investment banks and other companies have become ever larger, and this often led their managers to the conclusion that their institutions are too big to fail. It was an additional factor that facilitated issuing debt beyond any reason. The greater was their shock after the collapse of Lehman Brothers. In 2005 Standard & Poor's rating agency raised Lehman Brothers' rating to A +, indicating that the bank has large investment portfolio diversification and good risk management. This Bank was considered the best investment bank, which resulted in rapid growth of its assets. In the next two years, it achieved very high profits, and in 2007 received another award - the leader among dealers in the London

Stock Exchange. In the same year first losses on U.S. subprime Mortgages began to appear, a market where the bank invested more than $ 50 billion. In 2008 the losses increased, prompting a decrease in the price of the bank's shares from $ 70 to $ 10. Very extensive leveraging (the ratio of debt to equity has exceeded 30) had to lead to a loss of liquidity. In the absence of external aid, the bank worth hundreds of billions of dollars had to go bankrupt.

AIG insurance group encountered similar problems; in this case the crisis has forced the company to create huge reserves. This, however, did not protect it from the loss of liquidity. Faced with the impossibility of finding more than 100 billion dollars by J.P. Morgan and Goldman Sachs investment banks, the Fed has intervened and invested $ 85 billion assuming 80% of AIG shares.

Increased leveraging (indebtness) was made possible by the rapid development of various institutions and financial instruments. The hedge funds, rapidly developing in recent years, are one such institution.

The emergence and development of investment banks contributed significantly to the development of capital market. They facilitated the transfer of capital, increased liquidity and safety in the market. However, excessive pursuit of profits that resulted turned an advantage into a disadvantage. Quest for ever-greater profits was accompanied by an increasing nonchalance. Excessive leverage has led these institutions to the brink of bankruptcy. The same applies to financial instruments created by investment banks. Rapid emergence of new instruments facilitated collection of savings, increasing at the same time the liquidity of the markets, but their excessive use contributed to some extent to the volatility of the capital market.

One might ask whether this indicates that the current model of investment banking collapsed. This applies especially to the part of the business based on the wholesale funding. Anyway, the crisis made clear that traditional banks with access to deposits have an advantage over their investment counterparts.

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