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RESTRUCTURING THE FINANCIAL REGULATORY SYSTEM AFTER THE CRISIS

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Causes and consequences

The process of the financial crisis began in the markets of the advanced countries, then, having flooded the emerging markets, infected national, as well as international financial institutions. The macro level cause was the expansive economic policy arising from slack monetary and fiscal policies, while at micro level it is explained by the invention and spreading of uncontrolled financial innovation induced by continuously growing excess liquidity. The United States attempted first and foremost to restrict the cyclic fluctuations of the economy, while the less advanced countries of the euro zone (Greece, Ireland, Portugal and Spain) tried to temper economic differences through "cheap" domestic funds supplementing EU support. In the case of the latter, the interest rate level of the European Central Bank was institutionally given, which was warranted and necessary in the more advanced Member States (Germany), but was too low in the case of the less advanced ones, giving rise even to negative real interest rates in some countries.

Lasting excess liquidity generated excess demand but, despite this, inflation did not increase, or hardly at all. This situation had particular reasons (Surányi, 2008):

the excess demand increased the current account deficit,

the international flow of labour restrained the rise in wages,

the competition of import prices moulded on the basis of wage levels in the Far East put the brakes on the price increases of domestically produced products,

although excess demand did not give rise to price increases of the products in the consumer basket, which determines the consumer price index, the prices of assets independent of the consumer price index, such as real estate prices and equity prices, rose substantially.

The price increases measured indicated low level changes, excess liquidity did not appear to be excessive, and excess demand brought living standards that were never satisfactory closer to desires.

Financial institutions in the United States lent not only 80% of the sales price of new housing, but 100% and then, to drain off excess liquidity, even 120%, because new homes had to be equipped with new furniture and new household appliances. Financial institutions tried to dismantle the limits on lending; they securitized their claims, that is, they sold their claims in the form of securities. The buyer then broke it all up and re-packed them to produce a securities offer in line with the desires of final savers. The person and solvency of the original debtor, the coverage behind the debt was unknown, the risk could not be fathomed. The market turnover of re-packed securities is limited in the better case, or non-existent in the worse case, thus their pricing is calculated on the basis of models instead of market prices. The models used for fair market value calculations are regularly underestimating the risks and thus overestimating the value of the asset. So long as the market is booming, but at least prices are rising noticeably, there is no problem, and everybody is satisfied. The debtor can raise as much credit as he wants. The financial institution is able to satisfy all loan applicants, thus its profits satisfy both its shareholders' demand for dividend and the bonus expectations of management. Those who re-pack securities can also charge sufficient commission. Final savers can realise risk free yields. At least that is what they believe until "the first domino topples", because from that moment on the need to minimise losses sweeps the entire system of financial intermediation.

The first toppling domino could be any of several unforeseeable accidental events; if, however, there is no such event, the inevitable initial cause could be the interest rate increase intended to cool down an overheated economy (the European Central Bank increased its base rate from 2% to 4.25%, that of the United States, from 1% to 5.25%). An increase in the base rate increases lending rates, while the rapid rise in the cost of financing deteriorates the solvency of debtors drastically. The rising interest rate level slows down the increase in asset prices including real estate prices, then halts it, which finally leads to plummeting real estate prices, as a result of which the real estate coverage of mortgage credits is devalued substantially.

Savers accumulating the re-packed securities deemed to be risk free – having recognised the risks – would like to liquidate their securities portfolio fearing a decline in yields. It is, however, revealed immediately that they had been priced independently of the market, and their price has only been a calculated measure. They have to face not only plummeting prices, but in the absence of buyers, the impossibility of selling them. In the meantime, the quality of the placements of financial institutions deteriorates drastically, debtors partly become insolvent, it is partly impossible to sell coverages and receipts from their sale no longer covers the debt of principal and interest. The initial liquidity problems of the financial institutions rapidly become solvency problems, the volume of profits plummets, then they turn into losses, and the shortage of capital leads to situations close to bankruptcy. The liquidity of the banks was further decreased by the substantial increase of bad or non-performing loan portfolio, the provisions created and rolled over for years instead of realizing the loss in the time period it happened. In addition, to really mask the situation banks decided to restructure these loans, especially large loans, by even disbursing new loans to finance the interest missed with large grace periods and also penalties were cancelled.

The close bankruptcy situation of the banks paralyses the entire banking sector because of lack of confidence among the banks leads to the collapse of the entire system of financial intermediation. Banks suspend lending, the inter-bank money market does not work, and in addition to the money market, the real economy is also struggling with a severe liquidity squeeze. With the passage of not too much time, the high degree of excess liquidity is followed by a severe liquidity squeeze.

A liquidity squeeze may evolve out of excess liquidity over a relatively short period only on the basis of an earlier financial innovation. The party to the crime is the so-called leverage. In the case of investment leverage (whether when buying and selling securities, or creating term positions in the stock exchange) the own fund (deposit) requirement needed for the administration of a transaction or opening a position is only a fragment of the total amount of the transaction (30, 20 or even as little as 10%). Margin requirements were determined by historical volatilities. High leverage (low deposit requirement) increases risk to an extraordinary extent, that is, having deposited a low amount of own funds, extraordinarily high profits or losses are generated. In the event of a position opened in the wrong direction (one can speculate for both increase or decrease), the deposit requirement needs to be replenished daily, hence the sustainability of the position depends on the liquidity of the investor. In the event of not meeting the deposit requirement, the position is immediately liquidated and the loss on the investment is realised.

The actors and instruments of the financial market

The global drama has a multitude of actors where the actors are not necessarily on an equal footing, in addition they are partly given by history and are partly contemporary formations (at least not originating from the historical past), while the "stage properties" are largely fresh financial innovations.

The star, we could say the prima donna, is the United States, the young hero is China, the aged parents are the countries of the European Union, there is the intriguer Russia, and there is the large mass of subordinate characters and extras: India, the emerging countries of Asia, and finally, there is the large mass of the audience also: the African and Asian countries.

The most important of the existing institutions include the International Monetary Fund, the World Bank, a number of other international financial institutions, the euro zone, the central banks (with the FED and the ECB in the vanguard), the exceedingly structured system of financial institutions, the national financial supervisory authorities, the rating agencies, the audit companies, and last but not least the financial celebrities blessed with prophetic leanings.

Some of the well or not so well-regulated, or rather unregulated instruments of the financial system: the liquidity and capital requirements of the banks, the gearing ratio (the extent of the deposits), the government debt and general government deficit relative to GDP, the extent of stability, the system of inflation targeting, the rating agencies, the auditors and the incentive systems of financial institutions.

The USA, China and the European Union: monetary regulation and the global imbalances

The external financing position of the United States has shown a deficit since the early 1980s, financed first primarily by Japan, then over the last one-and-a-half decades by China, India and the oil exporters, that is, the surplus appears in their current account. As this process has been going on for decades and few countries participate in financing, the USA has amassed heavy external debts, while it is the claims portfolio

primarily of China of the financiers that is outstandingly high. Literature refers to this phenomenon as global imbalances: here we are talking about an imbalance of settlements, which is measurable. What is not, however, measurable and can only be guessed is that we also have a model disequilibrium here because, according to many, the process is unsustainable, at some point in time the process of adjustment must begin. In this respect, experts argue about the possibility of a hard or a soft landing; in the former case they expect an explosive change, meaning a rapid reduction (devaluation) of the debt and claim portfolios, and severe real economic recession. As against this, a soft landing would mean a slow and gradual reversal of the processes without substantial damage.

Financial crises always have their origins in an economic actor amassing debts, that is, either excessive consumption or excessive investment. The events of the American secondary mortgage market are only parts of the above process, as the entire American economy including both the private and the public sectors are heavily in debt. Just to illustrate: the balance sheet total of Lehmann Brothers was USD 600 billion, when it announced bankruptcy; in terms of its size this investment bank would be comfortable in a corner of the People's Bank of China, because its claims portfolio denominated in dollar terms is a multiple of this amount. The seemingly gigantic European debt portfolios coming to the light of day after the unfolding of the crisis are also insignificant compared to the total external debt of the Unites States.

A fundamental question associated with the system of financial regulation being revised or to be revised could be why there was no market signal (interest rate, exchange rate, inflation) of the processes outlined. For an answer, we need to reach quite far back. Since the 1980s, monetary policies have been calibrated for compliance with the rules, indicating the stabilisation of consumer price inflation as the ultimate goal. Friedman's notions that (1) inflation is a monetary phenomenon, (2) monetary policy is unable to regulate the real economy, (3) monetary policy can prevent that money should be the source of economic problems, have been accepted by both academic circles and practitioners. Under the above train of thought, monetary policies should not/were not supposed to do more than designate a concrete target, map out the relationship between the possible monetary instruments and the target (transmission channels), create rules on that basis, and then bring decisions on the basis of the rules.

Inflation, however, is not only a monetary phenomenon: globalisation is competition in the money and the service markets as well as the labour markets, and this competition forces prices down. Modern Western economies were struggling with a high rate of inflation early in the 1980s, but by the 1990s and the 2000s both the level of inflation and its volatility were curbed substantially. Inflation becoming moderate and the development and operation of the new monetary political systems coincided in time, hence according to general opinion, there must have been a causal relationship between the two, and hence monetary policy could be called successful. This (mis)belief had severe consequences.

Countries (largely emerging countries and countries in transition) also took over the monetary teaching and its application, for which its set of conditions and consequently its applicability was not adequate. Already the local crises of financial origin of the 1990s, whose extent was definitely smaller than that of the current one (Mexico, Asia, Russia) could be linked to the choice of inadequate monetary policy.

In economies where the choice of monetary policy was adequate at least in terms of the set of conditions (the large, more closed economies, the US or the EMU), we can speak about monetary policies becoming accommodative and their paradox credibility (see the works by Borio). Where inflation or rather its forecast is to be curbed, the time horizon of monetary policy is characteristically 1.5-2 years. As according to the forecasts, price stability was realised over this time horizon, there was no need for monetary tightening, in spite of the fact that the prices of financial assets, real estate and (stock exchange) commodities did rise. This is referred to as being accommodative. According to communication by monetary policy, the price stability could be maintained under the existing conditions, and economic actors did believe this. This is paradox credibility. It is part of our message[1], the achievement of the inflationary target was always and everywhere linked to the achievement of real economic and financial stability. In other words, the following relationships were kept and were made to be kept in mind: inflationary target → real economic stability; inflationary target → financial stability.

Feedback is missing from the above causal relationship, although in our view the disinflationary processes of the decade(s) preceding the crisis can be traced back exactly to real economic causes. As a result of competition reinforced in the wake of the real economic globalisation already referred to, price rises were limited not only in the commodity but also in the service markets. According to some, if the stormy technological development and improvement in quality are also taken into account, we could even talk about deflation. That is to say, together with others, we do not think that the unambiguous role of monetary policy

[1] Publications presenting monetary policy, inflation reports, stability reports

in forcing prices down is proven. If we examine the quantitative changes in monetary or credit aggregates, including credit products given by financial innovation in the latter over the same period, the process could be described as bloating or running riot. With the apparent price stability and output stability risks were amassed in the financing markets which was facilitated by monetary policy.

The option linked to the name of the former FED chairman Alan Greenspan, the Greenspan put was an important component of American monetary policy in the decades preceding the crisis. Since the end of the 1980s, FED pumped liquidity into the markets in the event of minor or major financial crises[2] in order to support asset prices, thus the value of this put option also appeared in the prices of assets – investors priced out the possibility of a severe price fall from the financial products because, in case of a disturbance, they could rely on the help of the central bank. That is to say, the central bank's Lender of Last Resort (LLR) role was extended beyond the banking sector taken in a narrow sense well before the crisis. According to the classical tenet (Rochet–Vives, 2004), a central bank may rescue banks in trouble only if stringent conditions are met, that is primarily for liquidity reasons and at an appropriately high price (at a penalty interest). This must be complied with in order to prevent the spreading of the moral hazard; otherwise market actors will be too willing to undertake risks higher than necessary. In the United States, not only these conditions were neglected for years, but their role was also extended to institutions which otherwise are outside the FED's scope.

The situation was different in Western Europe. Monetary policy was vigorously separated from financial supervision and regulation. According to the theoretical justification, monetary policy would be impeded in its main endeavour, if it had also to safeguard the stability of the individual financial institutions or the entire institutional system. In this case, it could happen that liquidity would have to be regulated by changing interest rates with a view to safeguarding financial stability when such a change would not be substantiated by the logic of inflation targeting (see in greater detail below). It is, therefore, not possible to work towards the achievement of two targets with a single instrument, but it is largely superfluous, too, because long-term monetary stability (price stability) also leads to financial stability.

Although based on the same principles, American and West European monetary policies differed from one another in terms of the practice followed; after the event – it is easy to say – both procedures proved to be erroneous. Owing to the global nature of the markets, financial market investors are not affected by and are not interested in the scopes of individual monetary policies. The movement of financial asset prices is strongly correlated globally partly for real economic and partly for psychological reasons. Owing to this, the value of the Greenspan put could also appear in the prices of European financial products; in practice the overseas asset purchases of large European banks constituted the channel of intermediation for this.

That is, several macro economic factors fed the bloating of the financial markets. The high financing requirements and surpluses arising from the global imbalances provided liquidity to the markets. As the USA is (has been) the economy to be financed, and it can afford to go into debt in its own currency (this possibility is referred to as the original sin in financial markets [Eichengreen and Hausmann 1999]), the initial liquidity of debt products is guaranteed. The real economic aspect of global imbalances, the price and wage competition driven by Asia made monetary policies accommodative, and this led to their paradox credibility, primarily in Europe. The confidence in the ability and willingness of the American central bank to provide liquidity only fed the (false) sense of security of economic actors.

The failure of Lehmann Brothers (an investment bank) or rather the fact that the American financial government did not rescue this institution could be assessed as the first sign of a change in the regulation of the financial markets. Naturally, we cannot know what exactly passed in the heads of the decision-makers, but letting this bank fail can be interpreted as the start of a new era, in which the actors of the financial market cannot take rescue by the central bank for granted. This is the medium or long-term future. The immediate impact of the failure of Lehmann Brothers was the aggravation of the crisis, and perhaps this also indicated that the actors previously unbridled in granting credits understood the message of the government. The deepening of the crisis, the real economic recession has been a consequence of restrained lending almost everywhere. Large banks did not grant credits not only because they feared lending risks but also because they can no longer reckon with the unconditional assistance of the central bank. Despite all the above the liquidity is still tremendous on the financial markets and the main reason of low liquidity is general distrust in the financial system.

According to many, what happed on 15 September 2008, should have happened 10 years earlier at the time of the rescue of LTCM. The failure of a financial undertaking has a disciplinary force on the market:

[2] At the time of the stock exchange crisis of 1987, the Asian crisis of 1997, the Russian crisis of 1998 in relation to the rescue of LTCM, and after the terrorist attacks of September 11.

shareholders lose wealth, the management loses position and reputation; business and transaction partners of the affected undertaking and the institutional creditors all suffer because of the failure. They will want to avoid this in the future, and such a disciplinary force may have even long-term macro economic effects. We have already mentioned that financial crises always begin with some people, real economic actors going into debt. This is a hypothesis, which cannot be proven, but can be assumed: had LTCM not been rescued in 1998, then American banks would have behaved in a more prudential manner in later years, ultimately giving less credit to the private sector. As the funding for the net credit portfolio of the US is abroad, tightening lending conditions inside the country would have improved its external position, and mitigated global imbalances.

Inflation targeting as a technical instrument of monetary policy

The system of inflation targeting is exceedingly simple to apply. First of all, the government and the central bank agree on the inflation target. The central bank produces its report on inflation every quarter, which describes the expected rate of inflation along the time horizon of inflation targeting, derived from a model. The body of monetary decision-makers evaluate the relationship of the inflation target and the forecast rate of inflation together with the available fact data once a month; and then, depending on the direction of the deviation from the inflation target, it either raises or reduces the interest rate. This is the basic scenario, of which deviation is possible in both directions.

What is the problem? First: what should be the inflation target for the given time horizon, knowing that the ultimate goal is the achievement and maintenance of price stability of an extent, which cannot be defined in any exact manner. Second: what is the time horizon for reaching price stability? Third: is interest policy a sufficiently efficient instrument for achieving the target? Fourth: does price stability enjoy priority over every other macro economic indicator irrespective of place (country) and time? Several answers can be given to these questions, and there is no "true" answer.

The government and the central bank may jointly adopt a concrete inflation target. (There can be and even there is a practice different from this: the inflation target is determined by the government, while the central bank has to achieve it, using its own instruments.) The ultimate inflation target can only be price stability (which need not necessarily be the same in an advanced country and in an emerging country), but two types of situation are possible with differences of not negligible extent: the country applying inflation targeting has already reached the level of price stability, and the objective is its maintenance, or the current rate of inflation is higher than the accepted price stability level, and the objective can be achieved later as a final result of a disinflationary process. In the latter case, the time horizon of achieving the ultimate goal requires a decision. This time horizon may be different depending on the efficiency of the instruments of monetary policy, the inflationary impacts of domestic economic policy and external shocks. I may well be that the disinflationary process is not too long, and the ultimate goal for the rate of inflation can be achieved within the realistic time horizon of monetary policy usually estimated at eight quarters. In the opposite case, the inflation target may be of a lower level year after year, but the ultimate goal (the level of price stability) is given only as a result of a multi-year process of disinflation. If to speed up the process an unrealistic target is announced, it has to be admitted year after year that the target is not being met. And it is not met not because the central bank was pursuing an erroneous monetary policy, but because the target was not realistic. The situation could be even worse when the central bank wants to achieve the target literally at all costs. For instance, it keeps raising the interest rate in order that, as a result of the growing difference in interest rates, the influx of short-term speculatory money should strengthen the domestic currency to the point of causing a spectacular decline in import prices. Thus the target, which cannot be regarded as realistic, will be met, but the too high interest rate level and the excessively appreciated currency exchange rate will have negative impacts of a different kind, burdening the domestic economy. Growth slows down, the interest in export declines while interest in importing increases. The most severe consequence of these negative processes is the decline in employment, in labour market activity.

There is no unambiguous evidence for a most efficient interest policy. This holds in particular for small, open economies where, according to our assumption, the exchange rate channel is an instrument more effective than the interest rate channel. What we can state with a high degree of certainty is that in small, open economies the rise in import prices given by the depreciation of the currency has a direct impact without transpositions, while cutting the base rate of the central bank may have an impact on global demand through a number of transpositions and through this, may fuel inflation.

The disinflationary impact of the appreciation of the exchange rate is conditional, depending on the decision of the importer: rather than reducing prices, he may realise the incremental price revenues, or by generating excess demand through cutting prices, he may wish to increase profits. The step of interest policy adequate to the appreciation of the exchange rate is raising the central bank's base rate, which can have a disinflationary effect also through many transpositions. And what can also be stated with certainty is that any instrument is more effective in relation to inflationary than to disinflationary processes.

We have no wish to underestimate the social impact of inflation, but would regard its overestimation as another error. If the inflationary process can be controlled, a rate of inflation higher than price stability – or what essentially comes to the same thing, a price stability defined as a higher level rate of inflation – can be accepted, if through this unemployment and inactivity lessens in the economy, that is, if employment increases.

The system of inflation targeting is arguable within itself even at theoretical level, because it explains the dynamics but cannot be applied for the levels. If the expected rate of inflation is above or below the target set, raising or reducing the base rate is warranted. What is the interest rate level belonging to a concrete rate of inflation or, the other way round, what is the rate of inflation to which a concrete level of interest rates is adequate, cannot be answered and cannot be justified. If possible interest rate reductions repeatedly fail to be taken, and after that, perhaps for external reasons, the central bank is forced to raise its interest rates, then compared to other countries, in spite of the same rate of inflation, substantial differences evolve in terms of interest rates, which in the event of the liberalisation of short-term money movements causes speculative money movements and volatile exchange rates. It is no longer a theoretical remonstrance, but it can be stated on the basis of empirical experience that central bank decision-makers tend to be more flexible in raising interest rates than reducing them.

And what could be applied instead of inflation targeting? In the case of open economies, the exchange rate could definitely be a solution. If only the inflation forecast is named as the interim objective of monetary policy, and not the exchange rate, even then a monetary politician cannot make a decision without taking changes in the exchange rate into account, even if this is not expressly stated.

International changes in the regulation of financial institutions: Basel III – supervisory systems

Financial regulation under review keeps two fundamental problems in mind: the pro-cyclic nature of existing regulation, and the individual institutional stratagems owing to which the financial system, rather than mitigating shocks, reinforced and spread them. The capital adequacy rules implemented under Basel II may be capable of institutional level risk management, yet they are ridden with severe problems with respect to the institutional system as a whole. According to these rules, banks must always have a minimum capital determined on the basis of risk-weighted assets. If risks increase, the bank must increase its capital or reduce its assets because that is the only way to maintain the minimum level.

Hence regulatory capital does not serve as a buffer, because the bank may not exhaust its capital when risks are realised because then it would go against the rules. When models point to risks at several banks at the same time, the need to comply with the capital adequacy rules shrinks lending activity at the level of the system. Tightening lending conditions, reduced lending, the massive sale of bank assets (fire sale) may give rise to recession in the real economy, which further deteriorates the quality of existing credit portfolios, that is, how the regulation aimed at mitigating bank's risks becomes pro-cyclic.

Three arguments can be brought up for capital regulation (Agliatta–Scialom, 2009): it provides a buffer against insolvency, it influences the assumption of risks and facilitates the timely introduction of measures by the supervisory authorities. These objectives may contradict one another (Hellwig, 2008). According to the current regulation, capital adequacy is calculated based on risk-weighted assets, which truly induces banks to examine the extent of risk assumption. Yet timely intervention by the supervisory authority would be much more facilitated, if risk weights were forgotten – the authorities find it hard to understand the banks' internal models – and a simple threshold figure was given for the capital/total asset value. Capital generation by the banks, which is referred to as economic capital under the current conditions, serves the interest of the shareholders: it depends on the willingness of shareholders to assume risks, how much capital they wish to set aside. Regulatory capital can be distinguished from economic capital as its generation protects the interests of taxpayers: regulatory capital must be of a size that will prevent the need to draw in the assets of taxpayers even in the case of a systemic shock.

The value at risk (VaR) models used in calculating risks have too short time horizons, hence they err in estimating risks. During the boom phase, general economic volatility is low, while it is much higher in

recession. Owing to the shortness of the time horizon of the models, the amount of reserves to be set aside is too little at the time of the upswing, and too much at the time of the recession, hence its pro-cyclic nature arises not only from the minimum capital requirement, but also from the properties of the models applied to risk calculation.

The generation of risk weights applied in calculating capital adequacy constitutes an additional problem; these are applied by the banks on the basis of the recommendations of the credit rating agencies. Credit rating, or rather the banks' measures implemented on that basis are also strongly pro-cyclic. If, for instance, the credit rating of a security deteriorates on the basis of the rating, banks may put these papers on the market en masse, very likely further deteriorating their prospects. The banks set aside provisions to cover expected lending losses, but the regulations currently in force recognise the reserves set aside as an element of capital only to a limited extent. Provisions are generally set aside when the banks perceive problems in relation to a credit granted, for instance, the borrower fails to pay after a certain period of time. The deterioration of the general indicators of the real economic and financial environment, however, does not induce banks to set aside provisions; it may and does happen that they stand there without any genuine reserves, when problems appear en masse.

In addition to regulations set forth in laws, in theory market discipline could also move banks to generate capital and accumulate reserves: this condition was formulated in the third pillar of the Basel II package. If, however, all move in the same direction in the market, and the quantitative and qualitative intertwinings of market actors are unknown and incalculable to banks and the supervisory authorities, the market's disciplinary force is lost.

The arguments against the Basel regulations (and a few others as well) were drafted already before the crisis, moreover even before the implementation of the package (Danielson, 2001), yet these concerns were not taken into account or only at an academic level. According to the most important argument of the opponents, risks are endogenous, hence they arise within the system (also) on the basis of the interactions of the actors, and the three pillars of Basel II have not been able to handle this. To this day, institutional level regulation and supervision have kept micro prudential issues in view; officially nobody paid any attention to systemic risk, even though first and foremost BIS researchers had given voice to the need for macro prudential regulation years before the crisis (Borio – Lowe, 2002; Borio, 2003; Sorge, 2004; Borio–Tsatsaronis, 2005; Shin, 2006).

The securitisation realised in the American financial markets constitutes an additional challenge not regulated under Basel II for regulators. The point of the operation is that funding for the credits granted is covered by securities issued, that is, they do not collect deposits. From the viewpoint of the financier, the advantage of issuing securities is the liquidity of the investment because there is no need to wait for maturity, if cash is needed, the securities can be sold in the market. The issuer can create securities in a structured way in accordance with the various risk classes, whereby it can target a wider range of potential buyers. As the buyers of securities are protected from maturity by the liquidity of the papers, that is, the existence of secondary markets, in principle long-term papers can also be issued. Economically, it would be warranted to cover 15-20-25-year credit placements with papers of similar maturities, yet this has not happened. The reason for this is the rising yield curve, as short-term papers mean cheaper financing. Although the process began in the United States, in the course of the years, European markets have also taken it over. The maturity mismatch between credits and funds increased substantially and, to top it all, the regulation of this is fully missing from the system currently in force.

The problems drafted above would presumably have appeared also if the regulatory and supervisory systems were uniform. Although the legislator implemented the Basel II package all over the world, consideration of the specific features of local markets was permitted in a wide range. For this reason, Member States and the supervisory authorities were able to apply more than a hundred discretionary options in practice (PSZÁF, 2010), which rendered the system complicated in any case and even more non-transparent. Moreover, accounting standards are also not uniform; there are substantial differences between the International Financial Reporting Standards (IFRS) used in Europe and the Generally Accepted Accounting Principles (GAAP) applied in the US. The model-based pricing enabled by GAAP spread in a wide circle prior to the crisis, this is referred to as fair value accounting. Using this method, assets can be presented in the balance sheet or in the off-balance sheet lines at a value higher than their current market price, which may even lead to a credit coverage ratio higher than 100%. However, the models are exceedingly sensitive, as they estimate future values, which are truly unknown, and their expected or perceived changing in effect happens by "guessing".

To eliminate the contradictions of the Basel regulation and to unify supervisory systems, the Financial Stability Forum functioning under the G7 since 1999 was re-formed under the aegis of G20 under the name

of the Financial Stability Board. At European level, the European Systemic Risk Board (ESRB) was set up. FSB mainly drafts recommendations and principles based on research by BIS and IMF and the experiences of the crisis, which are then largely elaborated by ESRB. ESRB is sometimes referred to as the European super regulator; it is worthwhile to set forth our doubts concerning this in advance. Individual financial institutions and their possible scopes of operation are always licensed, regulated and supervised in accordance with the legal order of a Member State. Individual Member States may and do take over Community level recommendations, but it is largely the local legislators and regulators, and the administrators of laws that have an opportunity to influence the operation of the institutions. So long as there is no uniform legal order, we cannot talk about the super regulator, because till then any institution established at Community level will count as an outsider. The fact that based on the implementation process taking place over the past two years, it seems that the legislators and administrators of the law in the United States evade the recommendations at several points, and allow regulatory convergence only to the extent that meets their own taste, constitutes an additional problem. The breakpoints between Europe and the United States and within the Member States of the European Union continue to prevail.

This set of recommendations became known as Basel III, but the materials of FSB are replete with recommendations, which apply not only to banks on the one hand, and which were not formulated for individual institutions on the other hand, but are to be implemented at the level of the institutional system. In any case the main emphasis is placed on reforming Basel II. To that end, capital regulation is changed in order to manage its pro-cyclic nature described above. Banks must set aside surplus capital during the upswing of the economy, which can be used as a buffer in the case of recession, that is, it can be dismantled. The minimal capital requirement at institutional level continues to be maintained, but this is supplemented by the dynamic provisioning obligation prescribed at individual and consolidated levels. In theory, the provisions set aside in this way must be adjusted to expected losses, which current risk assessment models are unable to calculate appropriately. To manage these problems, several recommendations were drafted. According to one such recommendation, banks would be placed under an obligation to set aside capital partially independently of risk, in other words, when calculating the leverage ratio, not the risk-weighted assets but the balance sheet taken at accounting value would be taken into account. According to another recommendation, stress tests would partially replace the VaR-based method (FSB 2009). According to the plans, dynamic provisioning would not be included in regulatory capital, it would consist only of the minimum capital requirement and the capital buffer.

The revision of the rules applies not only to the quantity of capital but also to its quality. From now on, Tier 1 capital elements would only include subscribed and paid up shares and retained profit. Anti-cyclic measures would also restrict the distribution of the banks' profits. It is recommended that until the bank's capital reaches the amount of the minimum capital requirement and the capital buffer, both payments to shareholders (dividends, redemption of treasury stock), and payments to management (bonuses) should be restricted. The same payments would constitute the basis of the evaluation reserve to be set aside on the basis of assets, which do not have a genuine market, thus their value in the balance sheet is grounded only on model calculations. Under the current practice, income obtained on the basis of such assets could be distributed immediately as dividends or bonuses, now all this would be adjusted to the economic cycle.

Under the new system, two types of liquidity ratios will be introduced, one measuring the short-term 30-day liquidity of the banks (LCR – Liquidity Coverage Ratio), while the other calculates the funding required for refinancing within the year (NFSR – Net Stable Funding Ratio). This brand new regulation is required in addition to the experiences of the crisis because of the transformation of financial intermediation, i.e. securitisation. The 30-day liquidity requirement is linked to the results of appropriate stress tests, and the range of liquid assets is defined in a relatively narrow way. There is a debate about whether or not to prescribe that assets categorised as liquid should be acceptable to the central bank. The annual liquidity requirement is balance sheet-based, requiring the availability of stable funding for total assets, as well as separately for the individual types of asset.

With a view to mitigating systemic risks, counterparty risk will have to be taken into account more stringently than before in setting aside capital; counterparty risks occur primarily in the case of intertwined institutions and in over-the-counter (OTC) derivative transactions. If the exposure of a financial institution against another financial undertaking is above a certain threshold, then higher than usual risk-weighting must be applied to the transaction. Under the recommendations, the risk-weighting of derivative transactions where there is no central contracting party, i.e. no clearing house is used, would be increased substantially. If the rules drafted on the basis of this latter recommendation will be effective, it will enhance the transparency of inter-bank derivative transactions, because they would be channelled to organised markets.

Cases when a bank in an emerging country borrows from its parent bank or from any other bank in an advanced country denominated in a currency other than its own, will be categorised as a transactions with high counterparty risk. To date, this area has been largely unregulated; however, based on the recommendations of FSB, risks that could be assumed with foreign exchange transactions should now be restricted, and a system should be built up that is capable of providing ex post assistance. The reason for this is that commercial banks with FOREX exposure can be assisted by their own central bank only to a limited extent in the event of a liquidity squeeze, because its reserves are finite. The Forex swap markets are unregulated, thus a general lack of confidence arising in the event of shocks could drive the banking systems of emerging economies into dire situations, even if they had lent prudentially prior to the onset of the shock. Although not expressly stated, the need for developing an international infrastructure providing liquidity in ultimate cases is outlined from the recommendations of FSB. The specific form of the organisation playing the role of the International Lender of Last Resort (ILLR) is for the time being doubtful.

In the new system just evolving, the supervisory authorities will accord special treatment to Systemically Important Financial Institutions (SIFI) especially because they carry above average systemic risk. Based on the recommendations, the authorities could prescribe individual adequacy ratios for SIFIs more stringently than usual. According to an even more vigorous recommendation, the scope of activity and the size of these institutions could also be restricted.

The language of the consultation documents preparing for the amendment of the rules is diplomatic, tacit in relation to the institutions, products and procedures which caused the crisis, and formulate criticisms comprehensible almost only for insiders. Yet, the ultimate goal according to which the regulatory system cannot remain unchanged, even though financial actors would expect it, having perceived the economic turnabout of the recent period, , is stated severally (FSB, 2009). A system of risk assumption in which profits are pocketed by shareholders and managers, while losses are borne by governments and taxpayers can no longer be permitted. The newly established organisations are aware that their proposals are recommendations only, and the legislators of the individual states must confirm them one-by-one, that is, cooperation by the national authorities is needed. What happens if they refuse to do so? The most severe sanction described to date was the publication of the list of non-cooperative organisations, which in fact shows that the efforts stand on weak legs.

The organisations making the recommendations would leave a relatively long period of time for the implementation of the new regulation because the capital increase corresponding to the recommendations over the short term could thrust economies into yet another recession. However, the profitability of financial institutions increased again last year, hence they recommend that the income generated should not be distributed, but used to build up the necessary capital buffers. From this point of view, conflicts may arise between the regulatory authorities and the governments because the latter may also rightfully claim the banks' profits, because in many cases, government assistance was needed for the survival of the banks.

Of the unspeakable international rating agencies

There are three rating agencies predominating in the international financial market. Perhaps they are not of equal weight, with Standard and Poor's and Moody's up front and Fitch coming up third behind them. Their market role is tremendous, their activities are uncontrollable. Extraordinary imagination would be needed to accept their independence and their disinterest in market processes. Naturally, nothing "evil" can be proven, we can at most limit ourselves to mention a couple of the spectacular oddities.

Just a few questions, which the leaders of the rating agencies could answer. How could the failed financial institutions needing state intervention receive a positive rating prior to the financial crisis? How come that they did not see the failure of Lehman Brothers in advance? In what way do they calculate the highest rating given to the debt of the United States of America (their liabilities total around USD 70 trillion, more than the amount of the world's annual GDP; while more than half of the states of the USA, such as California and Illinois, are facing financial bankruptcy)?

Each of the three large credit rating agencies are private companies, their ownership structure is – with a little exaggeration – non-transparent. Prior to the financial crisis, they committed several serious mistakes. It is not only that they failed to signal the weakened financial position of Lehmann Brothers, but the debt securities of the bank were given excellent rating by all of the agencies. On the day when Lehmann Brothers announced bankruptcy, they down-rated its papers to the lowest category all at once. The government papers of a strongly indebted USA received the best ratings from all three agencies not only prior to the crisis, but after its outbreak also.

Greece, which had been in a critical position initially in any case was down-rated several times in the course of the crisis, which only aggravated the financing problems of the Greek state as they could have access to market funding with increasing difficulty and more and more expensively. The European Central Bank officially expressed its dissatisfaction with the activities of the rating agencies, and raised the idea of setting up a European rating agency independent of the private sector. Commercial bankers put it even more bluntly: in their view, there is always somebody making a profit on down-rating. If somebody "gets wind of" an imminent down-rating, it will suffice to short the currency or government bonds of the economy concerned, and he will be able to reap tremendous profit.

An intervention is inevitable and must be drastic. Instead of these three agencies, the establishment of a new independent rating institution accepted by the European Union is warranted and inevitable. Its ideal form would not necessarily be a business organisation. Perhaps, the model of setting up and operating the International Court of Justice should be followed.

Auditors – audits

Everywhere in the advance world, stock exchange companies are under an obligation to have their annual reports and related business reports audited. In the case of non-stock exchange companies, audits are mandatory subject to size that differs country by country. The independent auditors of financial institutions audit the rating of placements (credits) and investments as well as the provisions set aside on the basis of the ratings.

The securitisation of the claims of financial institutions, the multiple break-up of the securities and their recombination in different structures hid genuine risks from the auditors. Recognition of genuine risks would require at least as much specific expertise as the invention and implementation of the arrangement itself. It is to be feared that with the stormy spreading of financial innovation, the profession of auditors could not and still cannot keep abreast. Professional specialisation has risen to such heights in the case of the employees of financial institutions that the elected audit company would only be able to control with employees of similar specialisation. Albeit meeting this requirement is not impossible, audit fees would be re-priced, and this would give rise to a substantial increase in audit fees.

Beyond a purely professional issue, the problem of the audit market cannot be neglected either. Some 90% of the audits of the companies traded on the stock exchange are carried out by the members of the Big Four, that is, four audit companies share virtually the entire market. Currently, what can be observed is at most the periodical rotation of registered auditors within the audit companies, while rotation at the audit companies is not typical. The consequences are that new companies or old but smaller companies are unable to acquire market share to debit the Big Four; at best the four audit companies make the rounds, and after a none too long period, the same audit company returns; to put it very-very carefully, the audit companies have lived their life of several decades in a strong symbiosis with the companies they are to audit. Any change could be achieved by legal intervention only.

The Big Four, beyond the extraordinary market concentration they have achieved, can be criticised for different reasons. Every one of the audit companies has a tax consultancy department. According to official opinions, surely there is an impervious internal wall between the audit and the tax consulting activities. Nevertheless, without going into a dispute concerning the imperviousness of the separating wall, we would regard the regulation of both auditing and tax consulting as exclusive activities as warranted. That is to say, each of the Big Four (and naturally, all the other smaller companies pursuing similar activities) should either audit or provide tax advice. The two together do not guarantee the neutrality and independence of the audit.

The possibility and practice of transfer pricing linked to international tax optimisation should be separately mentioned. The greater part of global trade is carried out between related companies of outstanding tax risks. The settlement price (transfer price) applied in their transactions is strongly linked to the offshore phenomenon as the regrouping of incomes to tax heavens could also take place through this. When choosing the location for company registration and in developing specific transactions, agreements excluding double taxation are also decisive. It may be worthwhile to choose a country levying higher taxes, if its network of such agreements is wider.

The future of tax heavens and the offshore technique altogether is an essential issue. There is no way to know whether it is possible to successfully level a blow at this mechanism that is so deeply embedded in the economy. A spectacular change cannot be expected within the foreseeable future, but the instruments may be altered and refined. Presumably, the billions accumulated over the decades cannot be "made to disappear" rapidly, aggravating an economic situation that is unstable in any case. The several million already registered

and operating companies constitute an integrated part of the world economy, they have legal relationships with onshore companies, they jointly possess assets, high value licences, real estate, they are party to multiple-year framework contracts. These are legally founded and operated companies, their rapid liquidation would have incalculable consequences. There will always be countries or islands, which would welcome investors. These days even the smallest islands enact their laws independently, and, even though influenced by international agreements and conventions, it cannot be prescribed for them how to shape their sovereign legislation. Yet this is not what matters, although the offshore activities of small countries can be attacked, but so long as the United States and the United Kingdom offer the best tax avoidance opportunities for non-residents, no result of merit can be achieved in the field of capital emigration. Based on the magnitude of company registration, the United States is the largest tax heaven of the world. In addition, the four companies pursuing audits and tax consulting activities at the same time (the Big Four) operate in every one of the countries of the world that cannot be neglected from an economic point of view, covering the decisive portion of the market, and besides also optimise tax payment arising from its own activities.

System of incentives for the management of financial institutions and their traders: legal regulation is needed instead of self-regulation

In theory, the regulation began at a fast pace. Only following the Pittsburgh Summit on 24-25 September 2009 where G20 leaders issued a statement which included condemnation of the "major failures of regulation and supervision, plus reckless and irresponsible risk taking […] that contributed significantly to the […] crisis", the need for global framework aimed at aligning compensation systems with long-term value creation and risks was recognised. At this summit Implementation Standards of FSB Principles for sound compensation practices were endorsed, meaning that the G20 countries took the initiative to implement FSB principles in their countries.

The Implementation Standards seek to achieve global adherence to the FSF Principles for sound compensation practices (hereinafter: FSB principles) issued on 2 April 2009. In order to ensure a level playing field for market participants, the FSB principles prescribed the following to the "significant financial institutions":

> Alignment of compensation with prudent risk-taking, including global standards on pay structure which provide for deferral, claw back, and varied composition (e.g. cash and shares) to ensure compensation practices are aligned with long term value creation and financial stability;
>
> Effective governance of compensation, including corporate governance reforms to ensure appropriate board oversight of compensation and risks, including greater independence and accountability of board compensation committees; and
>
> Supervisory oversight and engagement by shareholders, including greater disclosure and transparency of the level and structure of remuneration for those whose actions have a material impact on risk taking.

At the same time, in April 2009, Committee of European Banking Supervisors issued its High-level principles for Remuneration Policies (hereinafter: CEBS principles). National supervisors in the European Union obliged themselves to implement these principles in the financial institutions of their countries. The major difference between the FSB and CEBS principles is that while the former deals with the remuneration of the senior executives and other employees whose actions have a material impact on the risk exposure of the firm, the latter refers to all categories of employees putting special emphasis to the ones mentioned in case of the FSB principles.

During 2009 the European Commission also made certain steps to foster implementation of remuneration standards in the financial institutions of the European Union, though respective directives are still to be adopted by the Council and the Parliament. In January 2010 the Basel Committee for Banking Supervision (BCBS) issued a methodology intended for supervisors for assessing the financial institutions' compliance with the FSB principles. The other important initiative from BCBS is to build sound remuneration requirements into Pillar 2 of Basel II Accord.

Although the CEBS principles extend to a wider range of employees, yet we attach importance to underline that the financial incentives for the traders of financial institutions should also be revisited. Their rewards linked to the profits achieved is extraordinarily high in any comparison, although their profitability can be traced back partially to reasons independent of them, while an excessive pursuit of profit on their part may give rise to market anomalies.

According to the lessons of the past years, it was warranted to expect self-regulation, but it was unsuccessful, hence external regulation is inevitable.

Instead of conclusion: apart from the regulatory framework, personal responsibility is imperative

Since the 1930s, not only economic scholars who actively shape economics by teaching and/or conducting research but also bureaucrats responsible for economic policy and in some cases even politicians are aware of the phenomenon that expectations can influence markets. In addition, it is not surprising that if we can influence the markets by expectations then most of the participants would try to affect them actively with their own expectations and not just simply accommodate. On the product and labor market, where the mutual anticipation and coordination is lengthy and costly, the expectations are helping the shortening and decreasing of the accommodation process. On the financial markets, due to the inherent nature of the traded instruments, the time effect of any interference is quick, the cost is relatively large but on the contrary extraordinary yield can be realized in a very short period of time. However, the amount of the gain (yield) is counterbalanced with the same amount of loss on the other side of the transaction(s), given a zero sum game assumption. There is significantly larger economic influence and power on one side and smaller on the other side, the risk of intervention is much smaller for the more powerful entity on the account of the weaker economic entity and also the profit can be quickly maximized. "Survival of the fittest!" However, in economic context, are we sure that the small one should be extinct and the large one is prone to survive?

Much more precisely, until the fall of 2008 rating agencies, large audit firms and also the financial watchdog institutions were at best deeply silent about risks of repackaging/restructuring financial instruments issued by financial institutions and then sold to the widest spectrum of investors both institutional and private. Retrospectively, it can be argued that their pricing was manipulative and independent from any markets while the collateral was at best doubtful. Then panic erupted and everybody wanted to escape but it was too late and the only rational goal was to minimize their losses. A little bit later losses were booked, politicians promised swift and drastic measures, as they claimed: the same mistakes cannot be repeated again. The same not, but something else – almost the same – yes. There are no substantial institutional changes, the effect of the previous events are minimal.

However, the oracles and prophets also appear just in time and reveal their forecast or prophecy for the good of the humanity, for the sake of the nation or just due to personal responsibility. Or simply to create a hype or sensation and to sell better? What really annoying and absolutely unacceptable is the effort to cause damage instead of mitigation and prevention of loss.

Just a few examples from the perspective of a small, open (and let us admit) vulnerable Central-European Economy. In the middle of the financial crisis, one independent analyst of one of the largest banks of the world announced the target share price of the largest bank of the relatively small Hungary. That target share price was 1000 HUF (approximately USD 5) lower than the actual market quote. At the same time based on public information it was well known that the outlook of that global bank was negative while the outlook of the aforementioned Hungarian bank was stable.

One of the large rating agencies once threatens country A with downgrading because its government is not willing (or able) to cut the budget deficit. Few months later the same rating agency threatens the same country with downgrading as it is not stimulating the growth of the economy enough according to their opinion. Furthermore, herewith has to be mentioned that the practice of rating agencies to predict/forecast their own forthcoming actions is especially absurd.

At present it might also happen that, one of the most respected economists with substantial professional credibility and who is teaching at one of the most prestigious universities announces or better proclaims that in the next few years some of the Central- Eastern European countries will be the victim of their economic reforms to balance their budget. More specifically Romania, Ukraine and Hungary can declare default at any time. It would be interesting to know if the above mentioned highly decorated scholar knows all the economic and financial data of the given countries in details. Does he know all the plans and reforms planned by the national governments in details? If all the consequences and solutions are known then why does not he offer his help? Why does he want to cause damage and not to prevent or mitigate it?

In addition, the above mentioned scholar can make all the prophecies in the world, there will be no consequences – no loss of professorship or any reputational damage – as the above mentioned region and countries are far away and insignificant ones. The ever blamed speculators are at least risking monetary assets in their transactions.

By the way, how would the following scenario look, if let us say China suddenly changed its economic, foreign exchange and reserve policy? Would it be possible to discuss and to write about it in the same manner as it is happening in relation to insignificant countries?

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