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The changing characteristics of banking intermediation and bank regulation from the mid eighties to Basel 2

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I. Structure and applied methodology of the doctoral thesis

In my doctoral thesis I provide an overview of the changes that have occurred in the role that banks play in the economy, the development of bank regulations since the mid-1980s and their interactions.

The subject matter of Section II is the relationship between the financial intermediation and the economy. In line with the functional approach applied in this section my starting-point is the role that financial intermediaries play in the economy. According to this approach the differentiation between the "financial" and "real" sector of the economy has not any relevance. Moreover, the financial sector itself is the part of the "real" sector, which, executing its functions produces value added: monitors companies and managers, controls the financed companies and manages risks. After discussing the basic structures and the transformation of the nature of financial intermediation I offer an analysis of the way economic growth and economic cycles are related to financial intermediation. Both issues attracted interest from the international professional community in the 1990s. My doctoral thesis assesses trends in Central East Europe (hereafter: CEE) and Hungary in the light of the relevant literature. I try to determine to what extent the Hungarian financial system can promote growth, and whether its activity is pro-cyclical and whether such procyclicity is harmful. I then go on to study the correlation between financial intermediation and various types of legislation, paying particular attention to the characteristics of legislation in CEECs and Hungary.

In Section III on bank regulations I present arguments both for and against regulations. Then I go on to offer an overview of the international experience that the development of banking regulations has produced. I will also discuss capital regulations and the new features of the regulatory and supervisory philosophy represented by the Basel 2 Capital Accord, owing to its pivotal role. In the sub-section furnishing conclusions on the development of regulatory systems I do not endeavour to provide definitive answers to major questions that arise in connection with bank regulations, i.e. the issues of whether banks should be regulated, what methods optimal prudential regulation should use, what optimal regulation is like. Instead, I will attempt to stimulate further thought.

Ever since the first consultative document was published in 1999, the heat of professional debates over Basel 2 has not abated. Nevertheless, Basel 2 will no doubt be the bank regulation of the near future, no matter whether it is thought to be a step towards an optimal regulatory structure or, on the contrary, one that adds to systemic risks and increases the likelihood of future financial crises. This is, indeed, why it is highly important for us to be aware of the major challenges that the new capital regulations pose and the main problems that are related to their introduction. Though without striving to offer a full picture, Section IV is devoted to the discussion of some of these challenges and problems. The following issues will be addressed: 1) Anomalies arising from selecting (or having to select) the standard or the IRB method, 2) differences in the implementation of Basel 2 in Europe and the USA, underlying regulatory policies and their possible explanations and 3) correlations between Basel 2 and procyclicality.

In section analysing the relationship between financial intermediation and economy in addition to investigating theoretical and empirical literature on this topic and while discussing the individual sub-topics, I intend to elaborate on how key questions that arise in connection with a given set of issues are relevant to CEE and in particular to Hungary. My aim is to provide a detailed analysis of, and evaluate – on the basis of theoretical results and international experience – the role of Hungarian financial intermediation and, within this, the banking system as well as the desirable direction of its regulation. In doing so, analysing the intermediation growth nexus I rely on the data published by various international financial and economic institutions as well as central banks in CEECs[1] while analysing the procyclical nature of banking I rely on data of BIS, OECD and National Bank of Hungary[2].

Analysing the development trends of banking regulation besides the analytical overview of the related literature I built on my own commercial and central bank experience, the former being applicable to those regulated and the latter to regulators.

[1] They include the database of the IMF's International Financial Statistics, World Bank's database of World Development Indicators, data published by the respective central banks in Hungary, the Czech Republic and Poland and the EBRD's market economy transformation indices.
[2] I have not been able to provide an analysis of CEECs other than Hungary, since output gap data, indispensable for the assessment of the nature of the cycle, are not available on Czech Republic and Poland.

II. Propositions

Proposition 1.

Owing to the existence of a close causal link between economic growth and the depth of financial intermediation, it is exceedingly important that the depth and breadth of financial intermediation should grow rapidly and appreciably in CEECs, Hungary included. Distinguishing deepening intermediation from excessive credit expansion is vital (the latter being one of the most commonly used indicators of bank crises), which increases the importance of analyses of financial stability in the region.

There is a wealth of theoretical, economic-historical and empirical literature on the relationship between financial intermediation and economic growth. Based on this, it is safe to say that sophisticated financial intermediation boosts economic growth through fostering a more efficient allocation of funds. Historical evidence bears out that in order for innovations (which are a key to development) to become economic factors, not only the existence of the right technology, but also the availability of suitable financing techniques were indispensable prerequisites. Judging from the specialist literature that I have relied on, I can safely say that such a relationship can also be spotted in and is vital to economic development in Hungary. Awareness of such a relationship and allowing for it in economic policy may help growth, while the lack of it or failure to do so may impede growth.

In order to find evidence to support this proposition, I provide a detailed analysis of the depth of financial intermediation in CEECs, relying on some conclusions of the literature and using the methods adopted by it. While doing so, I evaluate the information available from national and international databases. I demonstrate that the depth of both bank and capital market intermediation in CEECs falls markedly behind that in countries at a similar level of economic development, i.e. middle income countries. Moreover, certain indicators are nearer values common in low income countries. Based on this, a phrase that would describe the system of bank intermediation in CEECs more appropriately is ‘neither bank, nor market’. Two things bring some hope to this rather dismal overall picture, however. One is that, with the transformation crisis passed, of the indicators for bank intermediation, the private credit to GDP ratio became more noticeable in Hungary and Poland. The other is that of the indicators gauging the depth of the capital market, the ones that measure market liquidity compared to market size, rather than the size of the market, paint a somewhat rosier picture of Hungary.

A novel feature of the analysis is that it combines two types of analysis, normally treated separately in the literature, namely the analysis of the correlation between growth and the depth of intermediation and that of the characteristics of the financial systems in CEECs, using this special combination to draw conclusions. The most important conclusion that this analysis offers is that the recent lending boom – instrumental in boosting growth in CEECs – should not be considered automatically as an indicator of a financial crisis. Efforts should be made to distinguish the structural deepening of financial intermediation, indispensable for economic growth, from cyclical credit expansion.

Proposition 2.

In Hungary, since the establishment of the two-tier banking system trend changes, common in banking activity, have become more dominant than cyclical fluctuations, thus we do not know for sure to what extent domestic banking activity is pro-cyclical. Analysing procyclicality should be a top priority among analyses of financial stability as this is the only way that helps distinguish necessary trend growth in financial intermediation from cyclical fluctuations and potential strong and harmful procyclical effects.

Banking activity is, by its very nature, procyclical, with both lending and profitability increasing during an upswing and declining during a downturn in the business cycle. The procyclicality of financial intermediation adversely affects the economy. It may contribute to an overheated economy and the development of bubbles during an economic recovery. It may further deepen an economic crisis by tightening credit during a downturn. Theoretical and empirical analyses of procyclicality have been drawing interest from the international professional community since 1999 when major criticism, voiced over the first draft of the Basel 2 Directive, attacked the strong procyclicality of the proposed regulations.

In order to substantiate my proposition, I make a thorough study of the theory of pro-cyclicality and, in the light of this, I set out to analyse the procyclicality of the activity of the

Hungarian banking sector.[3] I analyse the co-movement of the output gap with the lending, the collateralisation of bank loans with reserves, the capitalization and the profitability of banks. I propose that the cyclicality of the activity of Hungarian banks can be identified much less easily than that for OECD banks. Currently, developments in such indicators of banks that are the best for recording procyclicality depend more on longer-term trends indicative of structural transformation than short-term cycles of business activity. Business activity only results in minor deviations from trends. The analysis also shows that, at present, we have little knowledge of how the potential introduction of regulations amplifying procyclicality may affect the activity of Hungarian banks.

Proposition 3.

The level of development of financial intermediation in a given country and the regulatory and supervisory methods that can be applied effectively there are closely linked to the country's legal system. Common law legislation is more supportive of the development of market economies, is less rigid and can adjust to changes better. In my view the globalisation of international money and capital markets has started to ease the problems arising from different legal systems even today, and it is expectable that the further development of this process parallel with the increasing responsibility of international financial institutions for financial stability will further decrease the differences.

In the section analysing relationship between financial intermediation and legal systems I combine more, generally separately used questions. They are as follows: the theoretical correlation between financial intermediation and the legal systems, the international trends of financial legislation and the main characteristics of the legal system of the CEECs. On the basis of joint evaluation of these three factors I try to draw some lessons relating the future development of financial regulation and legislation.

There are two major types of legal systems. One is civil law based on Roman law and the other is common law. Civil law is the dominant legislation in both the old and the new

[3] The first attempt to analyze the procyclical behavior of the Hungarian banks was made in the study served as the basis of this proposition and the related chapter of my thesis. (See: publications 13. and 21.)

member states of the European Union. The most important difference between the two types is that civil law is based on the application of itemised regulation as introduced almost exclusively by legislators. Common law sets great store by courts' perceptions of legal disputes. Such perceptions continually affect the law itself. Thus common law is capable of evolution. Legislation affects the development of the financial sector, and the economy in general in two different ways. Common law is more supportive of the development of market economies than civil law is, as the former enhances the development of the private sector, while the latter promotes the government sector. Furthermore, legislation based on common law is less rigid, so it can adjust to changes better.

Historically, Hungary – a former member state of the Austro-Hungarian Empire – is a country where civil law used to prevail. An *ab ovo* rigid law enforcement practice that was part of the traditional legislation became excessively rigid over the 40 years of the socialist regime. Such rigid legislation alone may be an obstacle to the development of the financial sector.

I propose that the widespread adoption of uniform international standards for and regulations governing financial systems automatically reduces the number of the differences between the two types of legislation, and leads to the convergence of the regulations and regulatory principles to be applied in the financial sector. An analysis of the proposals for regulations and the characteristics of standards clearly suggest that convergence occurs through a shift in the legislation applicable to the world of finances towards common law. Hence the adoption of international standards, increasingly gaining ground in financial regulation, may facilitate a general convergence of legal systems.

Based on the above-mentioned points, Hungarian regulatory and law enforcement authorities will also have to prepare to be able to codify and adopt regulations that are consistent with international standards and more flexible than those rooted in old traditions. If legislation is to effectively promote economic development, this is a must with respect to both the spirit and the daily enforcement of the law. This is the only way to bring about actual legal convergence.

Proposition 4.

The development of banking regulations is a process in which state regulation incorporates the components of market regulation to an increasingly large degree. In other words, state regulation learns from the experience of the free banking system and, though it refuses to diminish its own role or reduce its own costs, it relies on the self-regulatory power of the market and its capacity to set prudential professional standards. Regulation and self-regulation thus come closer together.

In the developed world it is tacitly agreed that banks are among the most strictly regulated and supervised institutions. Yet economists discussing this issue cannot seem to agree on whether there is a need for such stringent state regulation and supervision. Those in favour of regulations say that without state regulation banks would be unable to play their special role in the economy efficiently. Arguments like this use the concept of regulation in a broad sense, including also the operation of a safety net provided by the state and prudential regulations in it. In contrast, those against regulations, i.e. advocates of free banking argue that there is no need for the state to regulate banks. They claim that regulation should be left to the market, which can do it more cheaply and more efficiently than the state. Some analyses do not treat regulations as a homogeneous whole. Rather, they classify them into two distinct groups, i.e. the safety net provided by the state and prudential regulations. In their opinion, prudential regulation is needed to offset the negative externalities caused by the safety net provided by the state.

With ongoing theoretical disputes as a backdrop, banking regulation has undergone major changes over the past decades. Changes in regulation are following a clearly identifiable development trend, which, to put it briefly, means a shift from quantitative regulations applying to all ('rule-based regulation') to differentiated regulations tailored to banks' individual risk profiles ('risk-based regulation'). A further characteristic of the development of regulations is that they place increasingly great store by the transparent operation of banks, i.e. that banks should be urged to operate prudently by not only regulations, but also the disciplinary power of the market, which evaluates a rising amount of and better quality information to be provided.

Based on the above, it may well seem that, while the debates that take place on the necessity of banking regulation in the academic literature are rather theoretical, in practice, independent of such debates, there is regulation – the development of which takes a definite and distinct course – spurred on by attempts at creating a set of optimal regulatory instruments. To sum up, we should not waste too many words on debates on the justification for regulation.

However, in reality, the picture is more refined than that. What we perceive as development today is none other than a process in which state regulation incorporates the components of market regulation to an increasing extent. In other words, state regulation learns from the experience of the free banking system and, though it refuses to diminish its own role or reduce its own costs, it relies on the self-regulatory power of the market and its capacity to set prudential professional standards. In formulating regulations that allow for the risk profile of banks to the greatest possible degree, regulators now review and evaluate the practice adopted by such banks that have the highest degree of risk awareness and that operate the most sophisticated risk management systems. Based on the general conclusions that they draw from such reviews, they set mandatory banking regulations. Furthermore, before introducing new legislation of great importance, it is almost always the case that regulators, those regulated, consultancy firms and researchers can hold a series of professional debates. These debates may also affect the development of regulation to a large degree. In other words, the mechanism of regulation has also approximated that of self-regulation.

Proposition 5.

One of the most important problem related to the forthcoming Basel 2 regulation is, that in countries where banks are relatively small and operate only locally, but are as a rule owned by large foreign banks, selection between the standard and IRB methods will not produce an optimal result for the country in question.

Generally speaking, the risk management systems of the banks in Hungary and the region as a whole are not advanced enough to be able to adopt the IRB method. (It should also be noted that owing to their size and the fact that they focus on domestic markets, banks in Hungary and in the CEE region as a whole seem destined to adopt the standard method.) In addition to the underdeveloped nature of their rating systems, there are a number of other reasons why the Basel 2 suitability of Hungarian banks lags far behind what would be satisfactory (mainly regarding their record-keeping systems, data structures and IT systems).

At the same time, the parent banks of the overwhelming majority of banks in Hungary and in the CEE region as a whole are major banks with advanced risk awareness and sophisticated risk management systems, i.e. they are suitable for the adoption of the IRB method. And if parent banks use the IRB methods, so must their subsidiaries. So it is highly likely that a large number of such banks in the region that should adopt the standard methods owing to their size and preparedness will still continue to use the IRB one. Hence, in selecting the method that they will use, these banks will be unable to act on the basis of the costs-capital optimisation outlined in the previous section. Rather, they will have to act out of the constraints that their respective parent banks impose on them. Naturally, these constraints are rational because what parent banks take into consideration in optimising their decisions is whether or not it is worth introducing the IRB method at a group level even if this incurs unreasonably high costs at the level of a few subsidiaries and the development required by the new methods poses enormous challenges to the subsidiaries affected. However, in countries where the overwhelming majority of banks will have to settle on a non-rational option, there may emerge serious efficiency- and competitiveness-related problems.

Proposition 6

Differences in the implementation of the Basel 2 Capital Accord in Europe and the USA call into question whether the new regulation will create competitive equality for the banks that introduce it. One of the possible causes of the envisaged differences is the difference between the US (common law) and the European (predominantly civil law) legislation.

In Europe each bank and investment business will have to comply with the new capital regulations, and each will be allowed to select from among the methods offered by the regulators. In contrast, according to current information, US regulators will classify banks into three major groups. For such large, internationally active banks that reach certain limits of size and international operation, the adoption of the sophisticated IRB method will be mandatory. This category will include approximately ten so-called ‘core’ banks. Further major banks will be allowed to decide whether they wish to adopt the same, more advanced methods as core banks do. (This means approximately ten more banks.) Current effective capital regulations will continue to apply to the remaining banks.

Differences in regulatory philosophy cropped up in the 5-year-long debates prior to the finalisation of the Capital Accord. Remarks from Europe focussed on finding the kind of solutions that would better suit European characteristics and allowed for the compromises that had already been reached at the EU directive level. Views from the European countries and the institutions of the European Union were equally divided between those proposing economic arguments and those which aimed at reducing – in the strategic segments (e.g. households and SMEs) that are of special importance for European countries – the capital requirement that the new regulation sets.

American views no longer call for the best possible compatibility of forthcoming regulations with the US market. When it became obvious that the less developed methods offered by future regulation would mean no significant progress compared to current practice of capital regulation and supervision in the USA, the emphasis shifted to partial implementation.

Based on the above, the most significant difference between the individual approaches of regulatory policy towards Basel 2 is that US supervisory authorities go to great lengths to gain actual knowledge and understanding of the position of the individual institutions and to formulate and apply the simplest possible rules accordingly.

The hypothesis that I obtained from Proposition 3 is that differences in legislation not only bear relevance to the state of development of the financial system, but they also fundamentally determine the stance on the implementation of Basel 2.

In countries where common law applies, and legislation supports rulings based on the active deliberation of courts, financial regulation is less rigid, with supervisory authorities granted more leeway for regulation and supervision. In these countries market participants are equally used to a more flexible regulatory environment and the fact that authority judgement is based on the perception of the case in hand, rather than a rigid application of rules. In contrast, countries where civil law applies need detailed comprehensive rules, as their legislation is less suited to providing solutions within a given legal framework to new challenges posed by innovations. Hence it is of little wonder that the USA with legislation based on common law and the European Union with legislation based on civil law differ so profoundly in their respective approaches towards the implementation of Basel 2. The EU sticks to the letter of the Basel 2 rules and the envisaged CAD 3, while the USA would welcome a system that is more compatible with the country's common law legislation.

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