Shifting Equilibria of European Financial Integration:

Explaining Continuities and Changes

by

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Abstract

This paper analyzes the process of European financial integration in light of the varieties of capitalism (VoC) ideas. According to the VoC approach, institutional differences between various types of economies should produce a conflict of preferences between countries over the form and direction of integration. This conflict should be especially evident in case the integration process involves most important spheres of domestic production systems. One of key spheres of the production systems is the financial sphere.

The principal question of this research is why, despite the alleged conflict of preferences, the process of European financial integration has advanced. The paper will draw on game theoretic methods to demonstrate the equilibrium stemming from the VoC assumptions. The focal issue of the analysis is the changes of the European financial integration equilibrium, which led to the adoption of a comprehensive package of measures aimed at harmonization of the European financial sphere (Financial Services Action Plan).

The main finding of the paper is that the equilibrium change was possible mostly because of the changes in the structure of payoffs of one of the main players in the financial integration process – Germany. Thus, the internal impulse towards the partial liberalization of the German financial system has coincided with endeavors of the European Union to harmonize financial systems of member countries. The continuities of institutional structures of Germany however allowed only for selective changes of the financial system, which makes the future of the financial integration unclear.

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Introduction

Differences in the structures of market economies are in the center of recent scholarship. Strong divergence between capitalist countries in the type of comparative advantage, structure of production system and relations between economic actors is often explained by differences in institutional constellations, caused by particular historical, political and social developments. One of the most important theoretical frameworks, dealing with the institutional differences within market economies has been called the "varieties of capitalism" (VoC) approach[1].

Within the VoC framework the conventional distinction lies between coordinated market economies (CME) and liberal market economies (LME). The basis of this distinction is a type of coordination (market vs. strategic) between multiple economic actors. Diverse types of coordination are embedded in the institutional structures of different types of economies. Institutions within various types of capitalist economies are connected with each other through a system of "institutional complementarities". "One set of institutions is complementary to another when its presence raises the returns available from the other[2]". Complementary institutions tend to encompass various subsystems of a domestic production system and reinforce each other in supporting the production of particular types of goods.

[1] See: Peter A. Hall, and David Soskice, eds., *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage* (Oxford: Oxford University Press, 2001); Bob Hancké, Martin Rhodes and Mark Thatcher, eds., *Beyond Varieties of Capitalism: Conflict, Contradictions, and Complementarities in the European Economy* (Oxford: Oxford University Press, 2007).

[2] Peter A. Hall and Daniel Gingerich, "Varieties of Capitalism and Institutional Complementarities in the Macroeconomy: An Empirical Analysis", *MPIfG Discussion Paper* 04/05 (September 2004), 6.

Correspondingly different sets of complementary institutions create distinct types of comparative institutional advantage for economic production. "Firms can perform some types of activities, which allow them to produce some kinds of goods more efficiently than others because of the institutional support they receive for those activities in the political economy, and the institutions relevant to these activities are not distributed evenly across nations[3]". Changes of the institutional structure within a distinct variety of economy might thus negatively affect the system of institutional complementarities and consequently the domestic comparative institutional advantage.

This idea has strong implications for regional integration processes. Regional integration presumes an economic harmonization between different countries. In case these countries dispose of different production systems, the process of integration should theoretically be confronted with serious difficulties. European integration is an exemplary case for the analysis of ideas stated above, since the process of integration has involved countries with different modes of economic coordination and systems of economic production. Difficulties here span various aspects of integration, but are most strongly pronounced in the spheres that serve as cornerstones of a particular capitalist model.

One of the most important spheres for a particular system of production is the financial sphere. Both coordinated market economies and liberal market economies rely on a specific system of financial interactions. In coordinated market economies financial

[3] Peter A. Hall and David Soskice, "An Introduction to Varieties of Capitalism", in *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*, eds. Peter A. Hall and David Soskice (Oxford: Oxford University Press, 2001), 37.

system usually relies on the presence of strong intermediaries (e.g. banks), while in liberal market economies it usually relies on the market. Both systems are considered crucial for supporting the sustainability of the respective type of economy. Thus there should be strong resilience on the part of countries with different types of economies to the changes of their financial systems.

The purpose of this research is to analyze why, despite the alleged difference in preferences over the functioning of financial system, the financial integration in the European Community and later the European Union was possible. The focal point of the analysis is the adoption of the Financial Services Action Plan (FSAP) in 1999, which aimed to harmonize the financial space within the EU along the lines of disintermediation and liberalization. According to the varieties of capitalism ideas, this plan was supposed to meet a strong resistance from players with intermediated financial systems (and particularly Germany due to its political weight). Most of the provisions of this plan however were supported by Germany, which in a way seemingly contradicts the ideas that were put forth earlier.

This paper will demonstrate that the adoption of the FSAP has coincided with internal efforts of Germany to introduce selective elements of the market-based financial system into its bank-based system. These efforts have changed the equilibrium of the European financial integration and rendered its further progress possible.

To formalize the discussion game theoretic methodology will be employed. Using the assumptions of the VoC approach, the paper will reconstruct the preferences of main players and identify possible equilibriums in the model of European financial integration. The research demonstrates that the process of financial integration from 1985 to 1999 generally corresponded with predictions of the game model. Liberalization measures adopted in 1999 (Financial Services Action Plan of the EU), demonstrated that there was a certain change in equilibrium of the integration, which the paper will explain on the basis of the analysis of the changes in the payoffs structures of the main players.

We take Germany and the UK as the main opposing players in the process of European financial integration. The decision to exclude other players from the strategic representation of the financial integration rests on two main assumptions. Firstly - countries with similar financial systems have similar preferences. Secondly – interests of countries with mixed financial systems are usually represented by countries on one or the other extreme of the financial spectrum, depending on the issue. The research can thus analyze the dynamics of the European financial integration by representing its most influential players without losing crucial insights into this process.

The first part of the research outlines underlying ideas of the varieties of capitalism approach and their implications for the process of European financial integration. The thesis starts by explaining the concept of institutional complementarities in the production sphere. As the next step it demonstrates the significance of financial system for the production system and basic differences between financial systems of coordinated

and liberal market economies. In the final section of the first part I will outline the challenges of European financial integration that follow from the VoC ideas.

In the second part of the research preferences of the main players in the financial integration of the EU (UK and Germany) will be reconstructed. Then on the basis of these preferences a game matrix will be constructed. I will then identify and describe the equilibrium of the game and its significance. In the second section the research will proceed to the analysis of the history of European financial integration from the perspective of the modeled game. It will be demonstrated that the equilibrium outcome that follows from the VoC approach assumptions has well held from 1985 to 1999. The actual events in the European financial integration from the 1999 however imply changes in the financial integration equilibrium. The research will show that the changes concerned the structure of the payoffs of one main player – Germany and proceed to analyze the nature of these changes.

The third chapter will primarily deal with the explanation for the changes in the payoffs structure of Germany. I find that there was an internal impulse toward the liberalization of the German financial system in the mid-1990s. In the first section the research will outline the reasons for this impulse and social and institutional factors that rendered this impulse possible. I will describe financial reforms undertaken in Germany and demonstrate how they coincided with the endeavors of the EU to give an impetus to the financial integration. In the third section I analyze the impact of the changes of the German financial system on the sustainability of its mode of production and argue that

the benefits of the changes were higher than the losses for Germany which contributed to the changes in the equilibrium of the European financial integration and rendered its further progress possible.

Chapter 1: Domestic Institutional Constellations and Challenges of European Financial Integration

1.1. Institutional Complementarities and the Production System

As a starting point of the paper, this chapter will outline basic theoretical propositions that permeate the whole matter of the research. The aim of this part of the paper is to provide a coherent framework that will structure the presented material and mark the main directions of the analysis. I will begin with the examination of financial system as a part of institutional system within which different actors are carrying out their core activities. The importance of different types of financial systems for the functioning of a particular economic model (coordinated and liberal market economies), will then be demonstrated. In developing this idea the paper will draw on the concept of institutional complementarities in the economy, which states that efficient functioning of institutions in a particular capitalist model depends on the existence of other institutions that interlace with them. In the third section of the chapter the principal challenges, that the process of integration between different capitalist models poses, will be depicted.

The difference between coordinated market economies (CMEs) and liberal market economies (LMEs) lies primarily in the mode of coordination within the economic system. While CMEs rely primarily on strategic coordination between economic actors, LMEs rely more on market competition. Distinct types of coordination are embedded in specific institutional frameworks that span various subsystems of a particular economic

model. These subsystems are tied with each other by the system of "institutional complementarities". In the core of the concept of institutional complementarities lies the notion that an economic system performs more efficiently in case when institutions of different subsystems operate in such a manner as to support the functions of each other. An important idea in this context is that "nations with a particular type of coordination in one sphere of the economy should tend to develop complementary practices in other spheres as well[4]".

Complementary institutions in a sense exist in a synergetic equilibrium within some distinct economic system which leads to a maximization of a productive capacity within this system. Thus the changes in one institutional subsystem would inevitable affect the performance of other subsystems within a domestic capitalism model. Despite the fact that various researches distinguish different spheres of political economy, financial sphere/subsystem is usually considered as one of the main pillars of a particular institutional system.

According to the "varieties of capitalism" (VoC) approach different interrelated spheres can be distinguished in the analysis of the economic model. Hall and Soskice identify five interrelated spheres of the economy in their theoretical treatise on the varieties of capitalism approach[5]. These spheres include industrial relations, vocational training and education, corporate governance, inter-firm relations, and relations with employees. For

[4] Peter A. Hall and David Soskice, "An Introduction to Varieties of Capitalism", in *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*, eds. Peter A. Hall and David Soskice (Oxford: Oxford University Press, 2001), 18.
[5] Peter A. Hall and David Soskice, "An Introduction to the Varieties of Capitalism", 6-7.

the purpose of our research the most important sphere here is the sphere of corporate governance "to which firms turn for access to finance and in which investors seek assurances of returns on their investments[6]". The notion "market for corporate governance" here is closely related to the notion "financial system".

In the later work on the varieties of capitalism Hall and Gingerich distinguish the financial sphere directly as one of the main parts of a domestic political economy along with the other four spheres (industrial relations, education and training, interfirm relations and firm-employee relations)[7]. Thus financial sphere serves as one of the cornerstones of a specific production system. All of the listed spheres are closely intertwined in the sense that to be able to function efficiently in particular production system main economic actors have to coordinate their actions across all of the spheres of political economy.

1.2. Role of Financial Sphere for the Sustainability of the Production System

So what are the mechanisms that link the financial sphere to the wider system of political economy? Domestic varieties of capitalism should in theory rely on differently functioning sets of financial institutions. The most widespread classification of financial systems distinguishes bank-based and market-based financial systems[8]. "Although

[6] Peter A. Hall and David Soskice, "Introduction to the Varieties of Capitalism", 7.
[7] Peter A. Hall and Daniel Gingerich, "Varieties of Capitalism and Institutional Complementarities in the Macroeconomy: An Empirical Analysis", *MPIfG Discussion Paper* 04/05 (September 2004), 7.
[8] See: Asli Demirguc-Kunt and Ross Levine, "Stock Market Development and Financial Intermediary Growth: Stylized Facts", *World Bank Policy Research Working Paper Series* 1159 (July 1993); Franklin Allen and Douglass Gale, *Comparing Financial Systems* (Cambridge: MIT Press, 2000); John Zysman, *Governments, Markets and Growth: Financial Systems and the Politics of Industrial Change* (Ithaca and London: Cornell University Press, 1983); Ross Levine, "Law, Finance, and Economic Growth", *Journal of Financial Intermediation* 8/1 (January 1999): 36-67.

financial systems as a rule include both banks and markets, bank-based systems are distinguished from market-based systems by a number of characteristics: a greater proportion of household assets are held as bank deposits, stock markets tend to be smaller and less liquid, and bank loans account for a greater proportion of company liabilities[9]". In fact a vast bulk of scholarship indicates that while CMEs most often dependent on bank-based (or intermediated) financial systems, LMEs tend to rely more on market-based (or disintermediated) financial systems [10].

Let us first consider the difference between the above-mentioned financial systems before proceeding to the description of their role in the institutional structures of domestic capitalism varieties. The main difference between the two types of financial systems is how private finances are channeled to business actors. In other words the difference concerns the means by which the supply of finance is matched with the demand for finance.

In CMEs the role of the vehicle for the transfer of financial resources is primarily undertaken by intermediaries (e.g. banks) that accumulate the resources of the private sector and then provide them on specific terms to firms. "In bank-based financial systems such as Germany and Japan, banks play a leading role in mobilizing savings, allocating

[9] Sigurt Vitols, "Changes in Germany's Bank-Based Financial System: A Varieties of Capitalism Perspective", *WZB Discussion Paper* SP II 2004 – 03 (March 2004): 1.

[10] See: John Zysman, *Governments, Markets, and Growth: Financial Systems and the Politics of Industrial Change* (Ithaca and London: Cornell University Press, 1983); Richard Whitley, *Divergent Capitalisms: The Social Structuring and Change of Business Systems* (Oxford: Oxford University Press, 1998); Douglas J. Forsyth and Daniel Verdier, eds., *The Origins of National Financial Systems: Alexander Gerschenkron Reconsidered* (London and New York: Routledge, 2003); Peter A. Hall and David Soskice, eds., *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage* (Oxford: Oxford University Press, 2001).

capital, overseeing the investment decisions of corporate managers, and in providing risk management vehicles[11]".

LMEs most often depend on market-based financial systems, in which financial capital is channeled to firms through financial markets (for example markets for stocks and bonds). "In market-based financial systems such as England and the United States, securities markets share center stage with banks in terms of getting society's savings to firms, exerting corporate control, and easing risk management[12]". The reliance of different capitalist models on distinct financial systems could be explained by already stated idea of the complementary role of financial institutions to the general system of economic production.

In liberal market economies, market-based financial systems serve as the core source of financial resources for various enterprises. It can be explained by the fact that under the system of market coordination the actors within the economic system are usually dispersed and have to rely for the most part on publicly available information to make decisions concerning investment of financial resources (due to high value of acquiring information by individual investors). This contributes to the development of stock markets which serve as a signaling device for suppliers of finance to figure out the performance of an enterprise. In their turn enterprises in this system are heavily oriented

[11] Asli Demirguc-Kunt and Ross Levine, "Bank-Based and Market Based Systems: Cross-Country Comparison," *World Bank Policy Research Working Paper* 2143 (July 1999): 1.
[12] Ibid.

toward developing their profitability and corresponding market value to increase the capacity for acquiring financial resources.

The orientation of firms on current profitability is compounded by other institutions within the LMEs. In corporate governance sphere for example - compensation systems of management are usually tied to profitability of the company. The focus on profitability also stimulates investment into more liquid assets that could be easily disposed of in case of economic downturn. In the sphere of firm-employee relations, firms of the LMEs need liquid labor markets, which would allow laying-off or hiring of workers depending on the economic situation to sustain or increase the level of profitability. This in turn stimulates demand of employees toward acquiring general rather than firm specific skills in the vocational training and education sphere of the LMEs, as there is no incentive to develop specific skills for the employees due to the relative lack of the job security. In the hierarchical structure of firms in LMEs power is usually concentrated on top management level, which makes it easier to adopt swift measures (for example lay-off labor) in case of a downturn.

In coordinated market economies the existence of the strong intermediaries that would channel financial resources plays a very important role. Firms of this economic model are heavily dependent on the access to the so called “patient capital” (long term financing less related to general economic situation). “Access to this kind of ‘patient capital’ makes it possible for firms to retain a skilled workforce through economic downturns and to

invest in projects generating returns only in the long run[13]". The provision of such capital is possible when there is more information than what is publicly available for a financial supplier. The acquisition of such information and the monitoring of the firm performance would be quite costly for a large amount of smaller and dispersed financial providers that are present in LMEs.

Thus CMEs must rely on large scale financial institutions that could establish links with firms, get "insider information", monitor firms' performance and provide the "patient capital". The presence of big banks in CMEs and the aggregation of the private capital by them is a very important feature of such production systems. As a flip side of the coin serve the practices of cross-shareholding and dense clustering of firms and financial institutions. Together these practices allow for better strategic coordination between the parties.

Correspondingly this distinctive type of financial system is firmly embedded within institutional framework of CMEs. The availability of capital, not dependent on a current profitability of the firms allows enterprises within the CMEs, to retain labor even during a recession or economic downturn. High labor security is closely tied to the educational and vocational training sphere, where employees that are guaranteed long-term employment have an incentive to invest into firm specific rather than general skills. The availability of the patient capital also allows firms to invest into more specific assets, since they would not be forced to sell them off in case of an economic downturn. In the corporate hierarchy co-determination practices are usually widespread, as is a strong

[13] Peter A. Hall and David Soskice, "Introduction to the Varieties of Capitalism", 22.

worker representation. This allows assuring prolonged job tenure and stimulating the development of firm-specific skills.

Besides the institutional complementarities between the spheres of production system there are wider institutional factors that contribute to sustainable existence of a particular type of financial system. According to Sigurt Vitols among the most important of these factors are household saving behavior, degree of distribution of benefits within an economy and a system of social security[14].

The behavior of the household sector strongly determines the functioning of a financial system. "In bank based systems, the bulk of household financial investment flows (directly or indirectly) into the banking sector. Conversely, market-based financial systems are dependent upon a sufficient flow of household savings into securities such as stocks in order to insure adequate liquidity[15]". In other words the pattern of channeling of household finances either through banks or financial markets directly translates into the sustainability of financial system. The investment patterns of the households in turn are closely tied to the distribution of benefits and the system of social security.

Different research has been carried out on the relationship between the income inequality and type of investment behavior[16]. There are strong indications that households in the

[14] See: Sigurt Vitols, "The Origins of Bank-Based and Market-Based Financial Systems: Germany, Japan, and the United States", in *The Origins of Nonliberal Capitalism: Germany and Japan in Comparison,* eds. Wolfgang Streeck and Kozo Yamamura (Ithaca: Cornell University Press, 2001), 171 - 199.
[15] Sigurt Vitols, "Changes in German Finance: Introducing more Market into a Bank-Based System", *UNU Working Paper* 03 – 29 (December 2003): 15.
[16] See: Manfred Euler, "Geldvermoegen und Schulden privater Haushalte Ende 1988", *Wirtschaft und Statistik* 11 (1990), 798-808; Sigurt Vitols, "Modernizing Capital: Financial Regulation and Long-Term

higher-income category tend to have more demand for high-risk, high yield assets (e.g. securities). Middle and low income households are usually more oriented to invest finance into more secure/less-risky assets (e.g. bank deposits). Therefore there is an important correlation between the type of financial system and the income distribution in a domestic economy. The channeling of funds through stock markets rather than through financial intermediaries is related to unequal distribution of resources and vice-versa.

The last institutional factor supporting the existence of a particular financial system is a type of the social security system, and, most importantly, the system of retirement benefits. Two principal types of social securities system can be distinguished here. Publicly funded (or "solidaristic") social security systems are based on redistribution of income from the active part of the population to the retired one. This is usually done by taxing the income of the working population. Thus there is a very small stock of financial resources being accumulated in this system. For example in Germany this system "accumulates a reserve of only about one month's payout, thus is not a major player on capital markets[17]".

On the other hand so called self-funded (or "individualistic") systems are based on private pension schemes, that is the retirement benefits are being accumulated individually in some kind of managing institutions (e.g. social security funds) during the work tenure and paid out afterwards. Such systems encourage the development of stock

Finance in the Postwar U.S. and Germany" (Ph.D Dissertation, Department of Sociology, University of Madison-Wisconsin, 1996).

[17] Sigurt Vitols, "Changes in Germany's Bank-Based Financial System: A Varieties of Capitalism Perspective", 18.

markets, since the resources accumulated by the pension funds serve as a source of capital input into financial markets. Thus individualistic systems favor market-based financial systems with developed securities markets.

1.3. Varieties of Capitalism and European Financial Integration Challenges

The creation of common market and common economic space in the European Community (EC) and the European Union (EU) entailed the financial integration between countries with bank-based and market-based systems. The process of financial integration has implied a gradual transformation and convergence of financial systems of member countries. Considering the importance of the financial system for a particular system of production, it is logical to expect that the financial integration process between countries on the opposite sides of the capitalist spectrum bound to be a problematic one.

Sensitivity of the issues concerning financial integration in the European Union is explained by the fact that the undermining of the particular financial system would lead to wide repercussions for related economic spheres. There is even a danger of the gradual erosion of comparative institutional advantage, which is based on a system of complementary institutions providing advantages for the production of particular types of goods in different economic models. Of course there exists a possibility to create another type of comparative institutional advantage by changing institutional structures within member states in a particular way. The outcomes of these changes however are usually

unclear. Moreover the very process of change would entail the transition period during which the performance of the economic system in transition could strongly diminish.

Another obstacle on the way of the financial integration in the EU is that the conflict between the countries with different economic systems is compounded by the conflict between different social groups/classes within society. The transformation of the financial system would have some distributional implications for the society. For example introduction of more market into the bank-based system would stimulate firms to concentrate more on "shareholder value". While shareholder groups could initially win from this process (due to the growth in the value of shares), blue-collar workers could initially lose (due to the losses of job security etc.). Thus until there is a broad cross-class coalition supporting the transformation of the system the decision to change might be either quite problematic or even impossible.

This is especially important for the coordinated market economies, where the system of strategic coordination contributes to the formation of strong producer and labor groups. These groups therefore tend to have quite significant structural influence on the government. "This structural influence may rest on a number of bases: the authority of producer organizations inside political parties, the entrenchment of neo-corporatist practices in enough spheres of policy-making that defection in one can be punished in another, or policy-making procedures decentralized enough to allow producer groups many points of access and some veto points[18]". Thus in case the government initiative would be perceived as incompatible with interests of such groups there is a possibility of

[18] Peter A. Hall and David Soskice, "Introduction to the Varieties of Capitalism", 48.

sanctioning the government by them. This reinforces the idea that any institutional transformation in economic spheres (in our case in the financial sphere) could often be possible only in the case when majority of different social groups perceive such transformation beneficial.

Drawing a line under the theoretical overview of the main ideas of the varieties of capitalism approach and their implications for the European financial integration process we would like to emphasize the fact that although the possibilities for the institutional convergence within the EU are quite limited, the integration process still proceeds. In the next chapter the theoretical discussion will be formalized by using the methodology of game theory to describe the European financial integration process. Drawing on these methods we will discuss fails and successes of European financial integration endeavors in historical perspective.

Chapter 2: Game Theory Application to the Financial Integration in Europe

2.1. Modeling the European Financial Integration

Now that the paper has outlined the general theoretic framework, it is possible to proceed to a practical analysis of the European financial integration process. In this chapter I will apply game theoretic methodology to describe problems of the financial integration. Thus the chapter examines the integration process through the lenses of the game equilibrium and analyzes possibilities of deviations from an equilibrium outcome.

European financial integration is a process of strategic interaction between multiple players. The main cleavage here runs between countries with bank-based and market-based financial systems. The research makes an assumption that the set of countries with BBS are quite similar in their interests and preferences. The same holds for the set of countries with MBS. It is thus possible to concentrate solely on the interaction of most influential representatives of the BBS and MBS to develop a comprehensive analysis of the European financial integration.

The United Kingdom (UK) and Germany are chosen as representative players for the game model because of their weight in the EU economy and politics and their dependence on different types of financial systems. I will exclude countries with mixed

financial systems out of the analysis because their position is usually represented by countries with one or the other type of financial system. Thus by excluding countries with mixed financial systems the research can concentrate on the essence of financial integration dynamics without losing most principal insights into the integration process.

Following the varieties of capitalism logic, I make an assumption that it is very complicated to remove one sphere of the production system and replace it with institutions of an opposite system. "These institutions would lack stability, or the replacement would undermine the whole configuration that was responsible for the success of the economy[19]". In other words there would be serious losses for Germany if it decides to liberalize its financial system and as well for the UK, if it decides to move to a certain type of intermediated financial system. Moreover if either Germany or UK will undertake the transformation to the alternative financial system there are some gains for the opposite player (because of the comparative advantage in this kind of financial system). Thus the basic representation of the game depicting the financial integration process would look the following way.

		Germany	
		MB	BB
UK	MB	2, -5	**0, 0**
	BB	-5, -5	-5, 2

MB – Market Based System; BB – Bank Based System

[19] Martin Hoepner, "Corporate Governance in Transition: Ten Empirical Findings on Shareholder Value and Industrial Relations in Germany", *MPIfG Discussion Paper* 01/05 (2001): 7.

As we can see both UK and Germany have dominant strategies (MB for UK, BB for Germany). The equilibrium outcome in this ideal case would be the upper-right quadrant with payoffs (0, 0). This illustrates the already mentioned idea that neither UK nor Germany has the incentive to change the dominant type of financial system that they have in this type of game.

In the real world however, the choices of players are not limited to extreme cases. For example during the constitution of a common financial space, each player could go for a compromise solution. Germany could accept some elements of a market-based financial system, while UK some elements of a bank-based system. There is a wide range of different mixed solutions. Let us see how the game would look once mixed outcomes are introduced.

We make the following assumptions about the structure of payoffs in the following game. Firstly, as explained in the previous game, each player incurs losses when it decides to move financial system closer to the system on the other end of the spectrum. These losses stem from the possible undermining of the institutional complementarities within the spheres of economy, which means efficiency losses for the whole economic system. Secondly – a move to a mixed outcome brings fewer losses than the move to the extreme outcome, due to a weaker degree of the undermining of an economic model. Thirdly – the wide range of possible mixed outcomes could be summarized under one strategy (let us call it M). The third assumption stems from the first one, in the sense that whatever

compromise solution will be taken there will be some losses for the economy of a player that decides to move. The difference lies only in the degree of impact on the economy of the player. And the degree of impact, as will be demonstrated below, does not play a crucial role for the strategic analysis developed here.

		Germany		
		MB	M	BB
UK	MB	2, -5	1, -2	**0, 0**
	M	-2, -5	-2, -2	-2, 1
	BB	-5, -5	-5, -2	-5, 2

MB – Market Based System; BB – Bank Based System; M – Mixed System

Following the third assumption I have just introduced one column to the game. As we can notice under the assumptions that were made above, there is actually no change of the equilibrium outcome. As long as losses from changing a particular type of financial system are assumed, we see that there could be only one equilibrium, which is for both players to retain their own financial systems.

The payoffs for the game have been assigned arbitrarily, in accordance with the stated assumptions. However to demonstrate that the payoff structure does not influence the

outcome of the game I will reconstruct the same game keeping only the first assumption (losses from changing some elements of financial system).

		Germany		
		L	M	C
UK	L	0, -1	0, -1	**0, 0**
	M	-1, -1	-1, -1	-1, 0
	C	-1, -1	-1, -1	-1, 0

MB – Market Based System; BB – Bank Based System; M – Mixed System

As we can see even with simplified assumptions and structure of payoffs the game equilibrium stays the same. Thus, following the logic of the Varieties of Capitalism approach, reflected in the game theoretic models, there are strong stimuli for both Germany and UK to retain their respective financial system and resist any initiatives of the European financial integration.

2.2. Game Equilibrium and the History of the European Financial Integration

The history of the financial integration in the European Community (EC) and European Union (EU) from 1985 to 1999 seems to support the idea of the neutral equilibrium

where each of the main players struggled to maintain the status quo in the financial sphere, resisting pressures coming from EC/EU attempts to create a single economic space. The first serious attempt by the European Community to harmonize domestic financial systems and create a common financial space came as a consequence of the adoption of the White Paper on "Completing the Internal Market[20]" in 1985, which aimed to create a single market (including financial market) in the European Community by 1992. "In this respect, the White Paper could be regarded as a full framework for dealing the sequence of liberalization in banking services[21]". The paper has adopted a very careful approach which seems to be in line with the idea that national governments were strongly reluctant to change domestic financial systems.

Three main pillars of the White Paper of 1985 were the minimum harmonization, mutual recognition and home country control[22]. Let us analyze each of these principles separately:

- The principle of minimum harmonization is probably one of the most important principles of the paper which rests on the idea of minimum common regulation as a basis for the financial integration of the member countries. This meant in fact that the aim of the member states was to find a common regulatory framework in

[20] Commission of the European Communities, "Completing the Internal Market: White Paper from the Commission to the European Council", *White Paper* COM 85/310 (June 1985), http://europa.eu/documents/comm/white_papers/pdf/com1985_0310_f_en.pdf (accessed May 25, 2008).
[21] Paola Bongini, "The EU Experience in Financial Services Liberalization: A Model for GATS Negotiations?" SUERF Studies 2 (2003): 15.
[22] See: Karel Lannoo and Mattias Levin, "Securities Market Regulation in the EU: The Relation between the Community and Member States", *Research Study for the Wise Persons' Committee* (September 2003), http://www.wise-averties.ca/reports/WPC_4.pdf (accessed May 25, 2008); Paola Bongini, "The EU Experience in Financial Services Liberalization: A Model for GATS Negotiations?" SUERF Studies 2 (2003): 15.

the field of financial services that would render the European financial integration possible, while minimizing the need for the adaptation of domestic financial systems. Thus there were initially only quite modest pressure on the member countries to change some minor elements of their financial systems;

- The principle of mutual recognition implies that after an agreement on minimal common rules and procedures have been reached, each of the member countries have to recognize the rules and procedures of other member countries. For the financial integration this means that if the financial service suffice for the standards accepted in one country it could be provided on the territory of all the constituent members of the EC;

- According to Article 103 the principle of home country control basically "means attributing the primary task of supervising the financial institution to the competent authorities of its Member State of origin, to which would have to be communicated all information necessary for supervision[23]". In other words the member countries retained the authority over domestic financial institutions operating in host countries. Therefore these institutions were still subjects to the home-country regulation.

Together these three principles have effectively contributed to the situation where member states retained a formidable degree of discretion over their respective financial

[23] Commission of the European Communities, "Completing the Internal Market: White Paper from the Commission to the European Council", 28(29).

systems. The equilibrium of the financial integration was exactly as was described in the modeled games. Financial integration process was tackled very carefully which reflects its significance for the existence of the distinct economic modes of production.

Despite a considerable number of directives and regulations concerning the integration in the sphere of financial services[24], the integration in the financial sphere proceeded very slowly until the mid-1990s and most of the directives have only dealt with minor elements of domestic financial systems. The second impetus for the resurgence of the attempts to develop the European financial integration came from the signing of the "Treaty on European Union[25]" (or "Maastricht Treaty") in February 1992. Most important directives pertaining to the financial integration that followed the Treaty were the "Investment Services Directive[26]" (ISD) and the "Capital Adequacy Directive[27]" (CAD) which continued the efforts to develop the common market in financial services notwithstanding strong differences in national financial systems.

Despite a certain degree of progress in financial integration, both of these directives implied little to no convergence between market-based and bank-based systems. The "Investment Services Directive" and complementary legislation "granted European nations broad latitude in establishing their own legal and regulatory framework for

[24] See: Paola Bongini, "The EU Experience in Financial Services Liberalization: A Model for GATS Negotiations?" SUERF Studies 2 (2003): 57.
[25] High Contracting Parties, "Treaty on European Union", *Official Journal of the European Communities* C 191 (June 1992).
[26] European Council, "Capital Adequacy Directive", *Official Journal of the European Communities* L 141 (June 1993).
[27] European Council, "Investment Services Directive", *Official Journal of the European Communities* L 141 (June 1993).

financial services[28]". The aim of the directive was to facilitate cross border activities of financial sector firms operating under different regulatory frameworks. The basic idea of the ISD was the creation of the so called "single passport" for the firms of the EU member countries. The "single passport" mechanism granted domestic financial firms the right to operate throughout the EU. However they were still operating under their respective national regulatory systems[29].

The Capital Adequacy Directive has also been very careful in tackling the sensitive issues of financial integration. It aimed at harmonizing standards on the capital requirements of the banks in different financial systems. Basically it has created a common framework which was applicable both to the situation of banks in bank-based and market-based financial systems. Thus the CAD was in fact another compromise which allowed for the functioning of quite different financial systems in Europe without putting forth any provisions that would upset the balance within domestic institutional frameworks[30].

The process of financial integration in the EU has therefore been resting on the principle of avoiding any initiatives that could destabilize financial systems existing in different member states. As was demonstrated by the game model there was no incentives for any of the players in question to move from the existing equilibrium. Thus the aim of the

[28] Glyn A. Holton, "History of Value-at-Risk: 1922-1998", *Contingency Analysis Working Paper* (July 2002), http://129.3.20.41/eps/mhet/papers/0207/0207001.pdf (accessed May 25, 2008).
[29] See: Benn Steil, "Regional Financial Market Integration: Learning from the European Experience", *Inter-American development Bank Working Paper* 362 (December 1997).
[30] See: E. Waide Warner, "'Mutual Recognition' and Cross-Border Financial Services in the European Community", *Law and Contemporary Problems* 55/4 (Autumn 1992): 7-28.

European governance structures at the time was rather to proceed with small steps on the road to financial integration.

The situation however changed drastically by the end of the 1999. Despite the alleged difference between the financial systems of member countries the EU was basically able to adopt a comprehensive program aimed at the creation of the integrated financial markets in the EU. The idea behind the program was a disintermediation/securitization of the financial systems of the member countries. "The core of this programme is the Financial Services Action Plan (FSAP), which is meant to sweep away the technical, regulatory and legal obstacles to a full integration of EU finance, especially security markets (markets for company shares, and for government and corporate bonds)[31]". The implementation of the FSAP[32] was supposed to take place during the period from the end of 1999 to the 2005.

According to the model represented in this chapter the Financial Services Action Plan (FSAP) was supposed to meet a strong resistance from players with intermediated financial systems (represented by Germany in our case). Theoretically the adoption of the FSAP meant for Germany the introduction of some market elements into its bank-based financial system. As we have already mentioned this should have led to repercussions for the whole institutional system of Germany. Furthermore wider institutional

[31] John Grahl and Paul Teague, "Problems of financial integration in the EU", *Journal of European Public Policy* 12/6 (December 2005): 1005 -1021.
[32] European Commission, *Financial Services Action Plan*, (May 1999), http://ec.europa.eu/internal_market/finances/actionplan/index_en.htm (accessed May 25, 2008)

complementarities should have contributed to the conservation of the financial system in its actual state.

What was however quite surprising in this case is that Germany has also supported most of the regulations of this program. From the perspective of the game model Germany initiated a move from the equilibrium point in the upper left quadrant (MB; BB) to the upper middle quadrant (MB; M) despite the losses associated with that move. In other words Germany has agreed to introduce important elements that were contributing to the change of the bank-based system to a mixed financial system.

		Germany		
		MB	M	BB
UK	MB	2, -5	**1, -2**	0, 0
	M	-2, -5	-2, -2	-2, 1
	BB	-5, -5	-5, -2	-5, 2

MB – Market Based System; BB – Bank Based System; M – Mixed System

Let us analyze under which conditions rational actors would prefer the move from the old to the new equilibrium within the constraints of the modeled game. In the current form there are dominant strategies for both of the players in the game. Since Germany was the

player that has made the change of strategy we have to assume that the payoffs of the strategy endorsed by Germany at this stage were more or equal to the payoffs of the older strategy. Let us first represent the game with an uncertain structure of payoffs at the new equilibrium.

		Germany		
		MB	M	BB
UK	MB	2, -5	1, x1	0, 0
	M	-2, -5	-2, -2	-2, 1
	BB	-5, -5	-5, -3	-5, 2

MB – Market Based System; BB – Bank Based System; M – Mixed System

Under the conditions that the payoffs for the first player did not change (UK), or in other words there is still a dominant strategy for the UK, the payoffs of the game must have changed in the way that x1 (the payoff from the new equilibrium) must be more or equal to 0. This would have created a new equilibrium in the game. Due to the continuous interaction between the main players on the EU level we can assume that the players have almost perfect information about the payoffs and strategies of each other. Adding this assumption to the previous ones it could be stated that in the strategic interaction between the players Germany would have had an incentive to move to the (MB; M) only if its own

payoffs have changed while the payoffs of the first player remained stable (or if the payoffs from such move would be higher that if Germany would have retained the BB strategy while UK would have endorsed some other strategy, but we could discard this variant due to the overwhelming amount of evidence that the financial system of the UK has in its essence remained stable[33]).

The game model developed in this chapter seemed to be valid for the explanation of the financial integration processes within the EC/EU at a particular stage of its development. Most notably in the period from 1985 to 1999 the game theoretic description of the financial integration was corresponding with the actual course of events. However in 1999 the equilibrium seemed to have shifted due to possible changes in the payoff structure of Germany.

Considering strong embededness of financial system in a system of institutional constellations, the only explanation for the equilibrium shift would be that the internal institutional structures of Germany have underwent some kind of major changes. This serves as a link to the discussion in the third chapter of our research where we will try to determine the essence of social and institutional transformations that rendered the described equilibrium shift possible in Germany.

[33] See: Mike Buckle and John Thompson, *The UK Financial System*, 4th ed. (Manchester: Manchester University Press, 2004); Bank Of England, *Financial Stability Report* 22 (October 2007).

Chapter 3: Between Continuity and Change: Transformation of German Financial System

3.1. Social and Institutional Factors of Change in the German Financial System

The change of the equilibrium in the European financial integration serves as a riddle for the theoretical inquiry of this part of the research. To solve this riddle it is necessary first to analyze changes that have happened in the German economy in general. The second step would be to explain these changes. The explanation will concern both the reasons for the changes and particular social, economic and political contingencies that have rendered the changes possible. We could then proceed to the discussion of the possible consequences that the changes in the financial subsystem could have for the functioning of the production system of Germany.

As the main explanation for the described in the previous section shift of equilibrium I take the idea that the decision to adopt the Financial Services Action Plan by Germany coincided with the internal developments of German economy. These developments concerned the need for the introduction of some elements of market-based financial system into the bank-based financial system, while the latter was perceived to impede growth of particular sectors of German economy. This has provided the reasons for the transformation of some elements of German financial system. However the change has been only possible when the internal institutional equilibrium has changed in a particular way. In other words the changes in the wider system of social institutions in Germany

have rendered the decision for transformation possible precisely at that particular moment of the financial integration endeavors of the European Union.

So let us analyze first the reasons that created the perceived necessity of the liberalization of German financial system, before we will proceed to the analysis of the changes in the internal institutional equilibrium in general. The endeavors to develop particular market elements in the German financial system were a consequence of three main reasons:

- Need for the development of the venture capital industry that would be able to stimulate the growth of the young and innovative high-risk, high yield enterprises.

- Growing unemployment levels, which stimulated the need for developing the entrepreneurial potential (and particularly stimulate the growth of small and medium enterprises) within the German economy;

- Falling profits of banks from the deposit based activities has rendered the equity investments more profitable for banks and thus made it in their interest to support the development of equity markets.

The development of market-based elements in the financial system serves as one of the necessary preconditions for the development of the venture capital industry. In highly intermediated bank-based systems, banks are usually reluctant to provide financing for

high-risk projects. Thus there is a need to facilitate the channeling the private financial capital to the market to support the developments in the sphere of venture finance.

The importance of the venture capital for the development of economy was fairly obvious in the mid-1990s. The fast growth of the Silicon Valley in the United States and a large amount of profit that it has generated for the US economy has clearly demonstrated the benefits of radical innovations and development of high-tech industries. Other countries were eager to mimic same successes in their own economies.

In coordinated market economies and particularly in Germany, the existing institutional system had to some extent impeded the developments of the innovative venture enterprises. According to the research in the varieties of capitalism paradigm, CMEs are mostly predisposed toward incremental, rather than radical innovations. "In CMEs, long-term employment strategies, rule-bound behavior, and the durable ties between firms and banks that underpin patient capital provision predispose firms to 'incremental innovation' in capital goods industries, machine tools, and equipment of all kinds[34]".

Financial system institutions are no exception in this case. "A particular weakness is seen in the bank-based system's ability to provide external finance to R&D intensive companies, particularly to new technology-based firms (NTBFs) that have neither the

[34] Bob Hancké, Martin Rhodes and Mark Thatcher, "Introduction: Beyond Varieties of Capitalism" in *Beyond Varieties of Capitalism: Conflict, Contradictions, and Complementarities in the European Economy,* eds. Bob Hancké, Martin Rhodes and Mark Thatcher (Oxford: Oxford University Press, 2007), 5.

track record, nor physical assets functioning as security, that banks base their lending decisions on[35]".

As the direct reflection of the weak capabilities of intermediated financial systems to support the venture enterprises serve a relatively small amount of initial public offerings (IPO) on the German market, compared for example to US or UK markets. "For example, in the years between 1988 and 1995 a total of 151 IPOs were carried out in Germany, compared to more than 1000 in the UK and nearly 2500 new listings on the NYSE and the American Stock Exchanges and 3000 at Nasdaq[36]". Against a background of the fast developing innovative enterprise sector in the United States, the underdevelopment of venture capital in Germany was seen as one of the reasons impeding the development and growth of innovative small and medium enterprises (SMEs)[37].

Another problem contributing to the need to stimulate the development of the large number of SMEs and correspondingly the financial markets that could support such developments was the growing unemployment in Germany. The unemployment rose from 6.3 percent in 1992 to 9.3 percent in 1997[38]. According to Marc-Oliver Fiedler and

[35] Sigurt Vitols, "Changes in Germany's Bank-Based Financial System: A Varieties of Capitalism Perspective", *WZB Discussion Paper* SP II 2004 – 03 (March 2004): 7-8.
[36] Josef Schuster, "Underpricing and Crisis – IPO Performance in Germany", *FMG Discussion Paper* 252 (1996): 5, quoted in Stefanie Franzke, Stefanie Grohs, and Christian Laux, "Initial Public Offerings and Venture Capital in Germany", *CFS Working Paper* 2003/26 (April 2003): 2.
[37] See: Marc-Oliver Fiedler and Thomas Hellmann, "Against all Odds: The Late but Rapid Development of the German Venture Capital Industry" The Journal of Private Equity 4/4 (Fall 2001): 31-45.
[38] Source: Statistical Office of the European Communities (Eurostat), Population and Social Conditions Harmonized Unemployment Rates, http://epp.eurostat.ec.europa.eu (accessed May 25, 2008)

Thomas Hellmann high unemployment rates were indicating the stagnation in traditional industries of German economy[39].

Correspondingly the development of new enterprises has been seen as a possibility to decrease the unemployment rates. German government has undertaken numerous initiatives to stimulate the development of small and medium enterprises, and provide them with necessary funding[40]. In this context development of venture capital has been seen as a necessary to assist in the creation of new work places[41].

One of the most important reasons for the perceived need to introduce more elements of market-based system was the interest of the German banks. The slow growth of the traditional sectors of the economy has contributed to the decreasing profits that the German banks could have extracted from the traditional borrowing and lending operations. In contrast to the countries with developed equities markets where by the mid-1990s the main profits were extracted from the investments on the equity markets (and the profits were higher), the German based banks had only limited possibilities to invest into equity[42]. Thus the banking sector has also been pushing for the development of financial markets in Germany.

[39] See: Marc-Oliver Fiedler and Thomas Hellmann, "Against all Odds: The Late but Rapid Development of the German Venture Capital Industry", *The Journal of Private Equity* 4/4 (Fall 2001): 31-45.
[40] Ibid.
[41] Ibid.
[42] See: Sigurt Vitols, "Changes in Germany's Bank-Based Financial System: A Varieties of Capitalism Perspective", *WZB Discussion Paper* SP II 2004 – 03 (March 2004).

All of the stated reasons however were complemented by the changes in the wider institutional constellations and behavioral patterns. This has involved the reforms in the system of social benefits (introduction of the so called Riester Reform), changing investment behavior of the German households and the development of mutual interest both on the side of shareholders, managers and workers in the introduction of some elements of market-based financial system. Together these changes have created a background for the changing equilibrium of European financial integration.

As we have already mentioned the German pension system has been based on the public (pay-as-you-go) principle. The system was introduced in 1957 and was principally based on the transfer of the income between the generations. In other words the active part of the labor force has been paying part of their taxes to be redistributed to the retired part of the population. Financing of pensions in this manner has created a situation where the accumulative potential of the pension fund was very small. In comparison with the private (self-investment) pension systems that exist in the UK and the United States, where pension funds accumulate financial resources and use them for the investments on the financial markets, the German public pension funds did not play a large role on the domestic financial markets. For example the German pension system had "reserve fund lasting less than 14 days of expenditures in August 2003[43]".

From the early 1990s onward however the system has been undergoing gradual reforms, culminating in the so called "Riester Reform" of 2001. The aim of these reforms was a

[43] Axel Boersch-Supan, and Christina B. Wilke, "The German Public Pension System: How It Was and How It will be?" *NBER Working Paper* 10525 (May 2004): 4.

transition from the public system of retirement benefits to the private/self-funded one. This transition was influenced by the growing burden that the system was putting on the government expenditures, due to the dramatic changes of the age structure of the German population caused by "a quicker increase in life expectancy than elsewhere, partly due to a relatively low level still in the 1970s, and a more incisive baby boom/bay boost transition (e.g., relative to United States) to a very low fertility rate of 1.3 children per woman, only a bit higher than the rock bottom fertility rate of 1.2 in Italy and Spain[44]". This has created a situation when more and more resources should have been transferred between the active and the retired parts of the population.

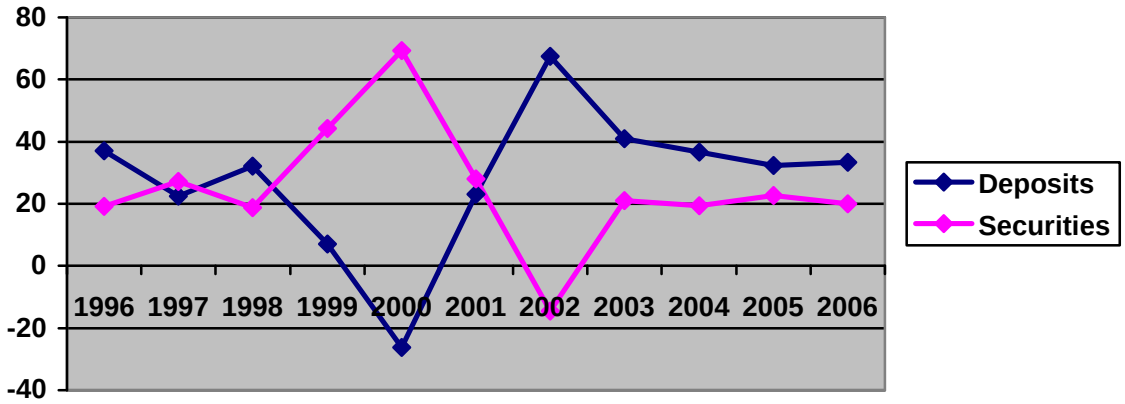
The reforms of the German pension system from public to the private one had produced new players on the German financial markets (private and public pension funds). These players have produced an inflow of financial capital into the German financial system and in this manner supported and stimulated the development of the financial markets in Germany. Thus the change in the retirement benefits system has profoundly affected the financial system development.

Another change that has created preconditions for the changes introduced to the German financial system was a rising interest of households in the acquisition of relatively high risk financial assets (such as bonds and stocks). Despite the fact that the income inequality remained relatively stable in Germany during the last years, the amount of the investment into securities (as a percentage of total household investments) has risen from 19.2 percent in 1996 to 44.2 percent in 1999, while the amount of investment into

[44] Ibid.: 5.

deposits has significantly fallen (from 37.1 percent in 1996 to 7 percent in 1999)[45]. After the stock market crash of 2000/2001 investment preferences of households seemed to turn back to bank deposits. However after the initial shock has passed the amount of investment into deposits have started to fall, while investments into stocks and bonds have on average risen (See: Table 1). It is still early to judge whether the investment into high-risk assets will return to the pre-crisis levels in the nearest period, however the change in the investment patterns in the late 1990s has also contributed to the growing disintermediation of German financial system and the rising role of the domestic financial markets.

Table 1. Acquisition/Disposition of Financial Assets by Households (% of total)



Source: German Federal Bank, "Financial Accounts for Germany 1991-2006," *Special Statistical Publication* 4 (July 2007); Author's Calculations.

The final factor creating the favorable situation for the partial liberalization of German financial system was the mutual interest of the managers, workers and shareholders in the

[45] Source: German Federal Bank, "Financial Accounts for Germany 1991-2006", *Special Statistical Publication* 4 (July 2007); Author's Calculations.

liberalization process of the financial markets. On the one hand the benefit of the managers and shareholders of the corporation is more or less evident from the introduction of some elements of market-based financial system such as "shareholder value", and associated managerial incentive schemes. For German shareholders the introduction of the shareholder value orientation would basically mean the increase in the market valuation of the enterprise and corresponding growth in the value of the shares that they hold. For managers this move would have provided an opportunity to benefit from particular stock option schemes, share buybacks etc., which would to a certain extent have increased the overall benefit package for the management[46].

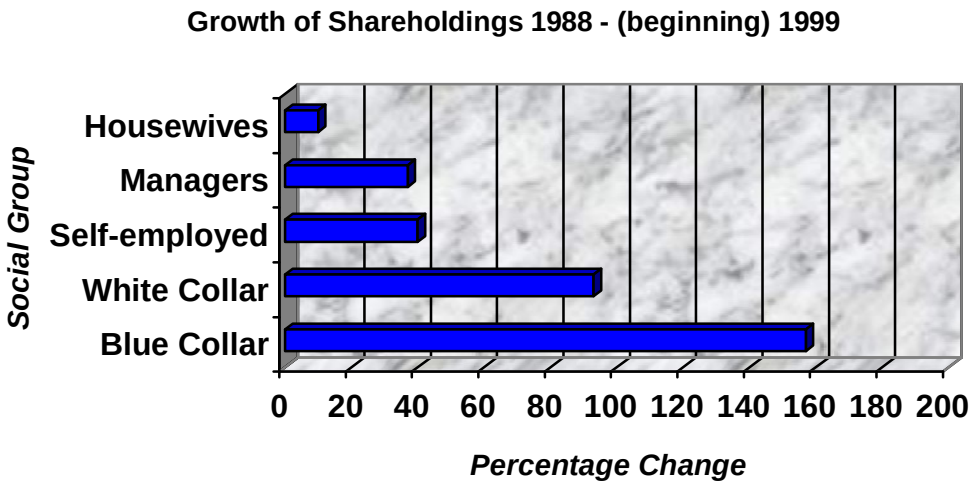
The benefit of the workers from the introduction of the market elements however is not so evident and could even sound like a paradox in the light of the idea that the "shareholder value" orientation of the firm has negative distributional implications for the employees (for example by stimulating the need for laying-off of workers during the economic downturn). The situation however becomes clearer once we analyze the changes in the shareholder structure of German enterprises. Our argument is that for the last decades the employees have in fact acquired a considerable amount of stock in the enterprises. In other words there has been a tendency of merging interests in political economy of Germany due to the fact that a large bulk of employees has themselves become the shareholders (See: Table 2). "An increasing number of employees are also shareholders, which means that shareholder protection is increasingly becoming one

[46] See: Martin J. Conyon and Joachim Schwalbach, "Executive compensation: evidence from the UK and Germany", *Long Range Planning* 33/4 (August 2000): 504-526.

aspect of employee-protection[47]". Thus the coincidence of interests between workers, managers and shareholders caused by social and economic developments has also created conditions for the transformation of German financial system towards a mixed model.

Table 2. Growth of Shareholdings of Main Social Groups in Germany

(% to base year)



Source: Der Spiegel, "Es Regiert die Gier", *Der Spiegel* 11/2000 (March 2000): 105.

3.2. Reforms of the German Financial System and their Consequences

Social and institutional contingencies of the German political economy have contributed to an extensive set of internal reforms initiated in the country. These reforms carried out under the heading "*Finanzplatz Deutschland"* aimed at a partial liberalization of German financial system and included among other things the introduction of so called "*Neuer*

[47] John W. Cioffi and Martin Hoepner, "Time for a New Blueprint? Left-wing Support for Shareholder Capitalism?" *Mitbestimmung* 08/2005 (August 2005): 61.

Markt" (new segment of financial market providing easier access to financial capital), introduction of alternative trading system (ATS) on the German stock market, public support for the venture capital, and a set of legislative changes in the financial/corporate governance system. The timing of these reforms has coincided with the efforts of the EU to create the integrated European financial space. Thus as was already mentioned the shift of the equilibrium in the European financial integration could be explained by the internal changes within the economy of Germany.

The development of the so called *"Neuer Markt"* was probably one of the most important measures in the set of German financial reforms. The idea behind the *"Neuer Markt"* was to create a distinct part of the Frankfurt stock exchange aimed at attracting the venture capital and stimulating the growth of the innovative SMEs. Three main ideas have been put in the basis of the functioning of the market. The first principal idea was the of the requirements concerning the minimal age of existence and the minimal profitability of the firms making an initial public offering on the market. The second idea was to provide an institutional backup for the trading in the shares of new SMEs (financial institution providing assistance in buying and selling shares of young companies), thus mitigating the problem of illiquidity and low attractiveness of buying shares of the newly listed enterprises. The third idea was to ensure the transparency of the financial data of listed enterprises by requiring the submission of the accounting information based on the internationally recognized standards (for example International Accounting Standards or Generally Accepted Accounting Principles)[48]. Together these measures have provided a

[48] Sigurt Vitols, "Frankfurt's Neuer Markt and the IPO explosion: is Germany on the road to Silicon Valley?" *Economy and Society* 30/4 (November 2001): 553–564.

strong impetus for the development of the SMEs in Germany. "The Neuer Markt is now by far the most important growth stock market founded in the 1990s in Europe in terms of both market value and number of listed companies, a fact that is most surprising given the conservatism of Germany's post-war financial system[49]". Despite the fact that the *"Neuer Markt"* was closed after the stock market crash of 2000/2001 in Germany, it has strongly contributed to the initial stock market capitalization in Germany.

The introduction of the alternative trading system on the Frankfurt stock market (Xetra – electronic trading system) has also allowed attracting domestic and foreign financial capital and developing German financial market. The establishment of electronic trading in Germany has simplified international and domestic financial transactions thus stimulating the flow of financial capital directly into the markets. Despite more modest role of the electronic trading on the German stock exchange than in the US (where at least 10 different electronic trading systems exist), the introduction of the electronic trading was yet another progressive step in the development of market elements in German financial system. The successful operation of Xetra has induced a number of other European stock exchanges to follow suit in introducing electronic trading mechanisms (e.g. Irish Stock Exchange, Budapest Stock Exchange).

The system of the public support for the private capital investment in venture enterprises was based on the idea of co-financing the private investments into the most risky high-tech sectors. This was done through creating special federal programs which provided public finances to support the private venture investment on favorable terms. "The main

[49] Ibid.: 554.

federal program was the BTU program, which provided either 70% refinancing of private venture investments, or co-financing up to 50% of the total investment, and a guarantee up to 50% of the private investment. In combination with regional programs, particularly in Bavaria, which were to some extent sector-specific (e.g. biotech), it has been reported that up to 6 Euros of public money were available to leverage each 1 Euro of private investment[50]".

Finally a comprehensive set of legal measures was undertaken during the 1990s to develop the market orientation of the German financial system. In the core of the initiatives undertaken to support the transformation of German financial system was a set of financial market promotion laws. Altogether four laws have been implemented between 1990 and 2002 "in an attempt to increase the transparency and level the playing field in the market for corporate control[51]". The current development of the so-called "private equity law[52]", which aims to promote the measures to support the investments in private equity, clearly demonstrates that the modification of the legal system in Germany in the direction of the development of markets is continuing. In addition in the sphere of the corporate governance legislation that influenced the development of financial market has been approved. Among the most important documents here was the Takeover Codex adopted in 2002, and the law for control and transparency in business of 1998. Together these laws have also contributed to the transformation of the financial system in Germany.

[50] Sigurt Vitols, "Changes in Germany's Bank-Based Financial System: Implications for Corporate Governance", *Corporate Governance: An International Review* 13/2 (May 2005): 4.
[51] Frank A. Schmid and Mark Wahrenburg, "Mergers and Acquisitions in Germany", *Federal Reserve Bank of St. Louis Working Paper* 2002-027A (November 2002): 12.
[52] German Ministry of Finance, "Private Equity Law", *Bundesgesetzblatt* 1/41 (August 2004): 2013-2014.

So how did all these measures influence the changes of the German financial system? The analysis of empirical evidence clearly indicates that in the period between mid-1990s and mid-2000s German financial system has undergone gradual transformations. The principal characteristics of the German financial system have changed in such a way that now it has acquired some features of the mixed financial system. Two principal indicators witnessing to the changes in the character of German financial system is the amount of banking assets in total financial system assets, and the capitalization of stock markets. The first indicator implicitly shows the role of banks in channeling the financial capital. The second – indicates the roles of the stock markets in the financial system.

Table 3. Comparative Ratio of Banking System Assets in Total Financial System Assets

Country/Year	1996	2001	2006
Germany	77.4%	73.6%	69.7%
United States	22.3%	23.5%	26.3%

Sources: German Federal Bank, "Financial Accounts for Germany 1991-2006," *Special Statistical Publication* 4 (July 2007); Federal Reserve Flow of Funds Statistics, http://www.federalreserve.gov/releases/z1/; Author's Calculations.

Table 4. Stock Market Capitalization of Listed Companies (% of GDP)

Country/Year	1996	2001	2006
USA	109	138	148
Germany	28	57	57
UK	146	151	160
Japan	67	55	108
France	38	88	108

Sources: World Bank, World Development Indicators, http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20398986~menuPK:64133163~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html.

As we can notice from Table 4 there has been a significant growth of the capitalization of stock market from 1996 to 2001. The fact that there are almost no changes in the financial market capitalization between 2001 and 2006 could be rather surprising. However, taking into account the stock market crash of 2000/2001, the return to the pre-crisis level of capitalization should be considered as a rather positive sign for the German stock markets (for example in 2002 the capitalization of stock market was only 34 percent[53]).

The proportion of banking system assets in the financial system has also fallen in the last decade. Despite a rather modest change in the amount of banking assets in the total financial system assets we can notice a steady downward trend in the last decade. The level of bank assets has fallen by almost 8% from 1996 to 2006, which considering the repercussions of the stock market crash on the investment behavior of household serves as an indicator of the falling role of banks in financial system. Combined together these facts evidence to the partial disintermediation of the German financial system and increasing role of the financial markets in Germany.

To complement our conclusions, let us use an additional empirical data for the analysis. We will use the theoretical framework developed by Sigurt Vitols in his research on the characteristics of German financial system[54]. The main idea of the framework is to compare the proportion of securitized assets and liabilities (highly marketable financial

[53] Source: World Bank, World Development Indicators Online, http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20398986~menuPK:64133163~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html

[54] See: Sigurt Vitols, "Changes in Germany's Bank-Based Financial System: Implications for Corporate Governance", *Corporate Governance: An International Review* 13/2 (May 2005): 386-396

instruments) in different economic sectors. "The percent of total assets or liabilities which are securitized thus provides a rough indicator of the importance of financial markets for a given investor or sector[55]".

Table 5: Comparative Statistics on the German, and US Financial Systems, 1996

Indicator	Germany	United States
Proportion of Securitized Assets in Total Financial System Assets	35.5%	54.0%
Proportion of Securitized Assets in Total Household Sector Assets	30.5%	35.0%
Proportion of Securitized Liabilities in Total Financial Liabilities of Non-Financial Enterprises	37.3%	48.5%
Proportion of Securitized Liabilities in Total Financial Liabilities of the Public Sector	59.4%	89.6%

Source: German Federal Bank, "Financial Accounts for Germany 1991-2006," *Special Statistical Publication* 4 (July 2007); Federal Reserve Flow of Funds Statistics, http://www.federalreserve.gov/releases/z1/; Author's Calculations.

Table 6: Comparative Statistics on the German, and US Financial Systems, 2006

Indicator	Germany	United States
Proportion of Securitized Assets in Total Financial System Assets	41.2%	57.8%
Proportion of Securitized Assets in Total Household Sector Assets	35.1%	32.2%
Proportion of Securitized Liabilities in Total Financial Liabilities of Non-Financial Enterprises	44.3%	51.1%
Proportion of Securitized Liabilities in Total Financial Liabilities of the Public Sector	71.5%	78.1%

Source: German Federal Bank, "Financial Accounts for Germany 1991-2006," *Special Statistical Publication* 4 (July 2007); Federal Reserve Flow of Funds Statistics, http://www.federalreserve.gov/releases/z1/; Author's Calculations.

[55] Sigurt Vitols, "Changes in Germany's Bank-Based Financial System: A Varieties of Capitalism Perspective", *WZB Discussion Paper* SP II 2004 – 03 (March 2004): 2.

As we can see, there have been certain shifts in the significance of financial market instruments for the most important sectors of German economy. Even notwithstanding the negative effects of the stock market crash there is an upward trend in the role of securitized assets for the main sectors of economy. Aggregating the conclusions of the empirical analysis of the main indicators of German financial systems we can spot – the falling role of deposit activities in the financial sector, growing role of financial markets and the growing reliance on the financial market instruments within the principal sectors of German economy.

Thus the changing equilibrium of European financial integration was a result of internal changes within the economy of one of its main players – Germany. The changes in institutional and social constellations have created a favorable ground for the reforms of financial sector, which were perceived necessary to stimulate the growth of the German economy. Consequent reforms gave a strong impetus to the developments of financial markets and disintermediation of the financial system. As we have earlier stated this should have affected the system of institutional complementarities within the German economy. In the final section of our research we will analyze these changes and consequent prospects for the German system of economic production.

3.3. Exploring Effects of Change for the Production System of Germany

The bank-based financial system in Germany has been undergoing a gradual shift toward disintermediation and liberalization. What consequences will it bring for the wider

sustainability of the German economic system? On the one hand introduction of market elements into the financial system should affect the institutional constellations within the economy. For example "shareholder value" orientation should undermine the ability of firms to retain the employees during the economic downturn to sustain a necessary level of profits. Also the falling role of banks could undermine the possibilities to build strategic alliances between financial sector and industry and thus severe the access to the patient capital for the latter.

On the other hand the transformation of the German financial system is still in the process, and there are good reasons to assume that the transformation would not lead to the radical liberalization of this system, but rather to some hybrid variety of financial system that might even be beneficial for the long term development of German economy. Firstly the banks still play a rather considerable role in the financial system of Germany as compared for example to the US. Despite a certain degree of disintermediation, there is still sufficient capacity for the banks to support some industries where the domestic economy has a comparative advantage, while gradually abandoning less competitive sectors to the market. In the first place this support concerns the firms that produce capital goods, based on incremental innovations, where the access for the patient financing plays the most important role (partly due to the specific nature of capital assets and partly due to the necessity for the development of specific labor skills). In this sector close relations between the German banks and major industrial companies have well remained in place[56].

[56] See: Sigurt Vitols, "Changes in Germany's Bank-Based Financial System: A Varieties of Capitalism Perspective", *WZB Discussion Paper* SP II 2004 – 03 (March 2004).

On the other hand recent developments on the financial markets in Germany have allowed stimulating certain developments in high-tech industries. Particularly in the sector of e-business and biotechnologies the financial market reforms have stimulated the emergence of new enterprises. These developments have had a very positive effect for the various spheres of German economy. The growth of biotechnology sector alone brings considerable benefits for the development of German labor market. "The total number of jobs in this cluster increases from about 393,000 in the year 2000 to between 657,000 and more than 1 million people in the year 2010, depending on diffusion rates[57]".

The second argument that supports the idea that the changes in German financial system were relatively harmless for the functioning of its economic model is that the changes in the financial system, even under the pressure of the European financial integration have been carried out on a rather selective basis. During the FSAP process for example, despite the fact that Germany adopted most of the requirements of the plan, there was a strong confrontation over the so called Takeover Directive, which threatened to jeopardize the position of German enterprises[58]. What is notable in this case is that the number of German members of European Parliament (MEPs) voting against the directive was 99 percent[59].

[57] Klaus Menrad, "Future Employment in Biotechnology in Germany", *Journal of Commercial Biotechnology* 12/1 (October 2005): 36.
[58] See: Helen Callaghan and Martin Hoepner, "European Integration and the Clash of Capitalisms: Political Cleavages over Takeover Liberalization", *Comparative European Politics* 3/3 (September 2005): 307-332.
[59] Ibid.: 24.

On one hand the failure of the Takeover Codex has meant that despite the liberalization tendencies there is a large degree of reluctance to liberalize some of the most important strategic spheres of German economy. On the other hand, the fact that despite different social and ideological orientations of the German MEPs they have still voted in a similar fashion supports the idea that the internal social coalition is still strong in supporting particular elements of the German financial system that are considered crucial for the existence of the German economic model. Thus the shift in the internal social and institutional equilibrium only allow for a moderate degree of changes which are compatible with the comparative institutional advantages of German economy. These facts evidence in support of the idea that in a distinct variety of economy "Change, therefore, is most likely to be path-dependent, and significant path-shifting or equilibrium breaking behavior on the part of actors – producing a fully fledged shift from a CME to a LME, for example - is very unlikely to occur due to the 'general efficiencies' for distinctive political economies created by 'complementarities'[60]".

Taking into account the above reasoning we could state that Germany was basically able to introduce market elements into its bank-based system, without incurring heavy losses from such a step. The gains resulting from the developments of German stock markets were obviously higher than the losses resulting from the partial transformation of the financial system, since the negative repercussions for the existing system of comparative

[60] Bob Hancké, Martin Rhodes and Mark Thatcher, "Introduction: Beyond Varieties of Capitalism" in *Beyond Varieties of Capitalism: Conflict, Contradictions, and Complementarities in the European Economy,* eds. Bob Hancké, Martin Rhodes and Mark Thatcher (Oxford: Oxford University Press, 2007), 6.

advantage were negligible. This has made a move from the old equilibrium to the new one beneficial for Germany, which was reflected in the adoption of the FSAP initiatives.

Conclusion

The progress of European financial integration process was rendered possible due to the changes in the structure of payoffs of one of its main players (Germany). These changes were a product of the internal endeavors of Germany to introduce some selective market elements into its bank-based financial system. These endeavors have coincided with the initiative of the European Union to harmonize the financial sectors of its member countries, which made the progress of the financial integration possible.

The research has also found some indications that the process of the transformation in its current form is to a certain extent limited by the institutional constellations within member states. Thus notwithstanding the measures that Germany has taken to liberalize some elements of its financial system, there was a quite selective basis for the introduction of these elements. Essentially the changes that were introduced have only weakly affected functioning of the production system of Germany. "Broadly speaking, coordination in some spheres of the German political economy has been loosened in response to the challenges of the 1990s but strategic coordination remains prominent in the endeavours of many firms[61]".

All in all the results of the analysis support the predictions of the varieties of capitalisms approach about the problematic nature of the European financial integration. The

[61] Peter Hall, "The Evolution of Varieties of Capitalism in Europe" in *Beyond Varieties of Capitalism: Conflict, Contradictions, and Complementarities in the European Economy*, eds. Bob Hancké, Martin Rhodes and Mark Thatcher (Oxford: Oxford University Press, 2007), 70.

equilibrium shift in the strategic interaction between the main players has happened not because of the external pressures of the European integration, but rather due to the internal changes within the economy of one of the players. In fact the process of European integration up until 1999, demonstrates that despite there were various endeavors to harmonize the European financial sphere, most of them have had a negligible impact on the equilibrium of integration.

Even now the prospects for the further progress of the European financial integration are unclear. So far Germany was able to undertake the financial liberalization process while avoiding serious threats to its system of comparative advantage. Whether Germany will be able to continue to extract benefits from the liberalization process, while minimizing the losses that it brings, remains to be seen. Another question would be what will happen in case the liberalization process will acquire its own inertia and start to incur losses for the German production system? Will Germany try to reverse the process or will it let it proceed and what consequences for the process of European financial integration this situation will have?

The changes introduced to the German financial system despite having a certain effect on the emergence of financial markets and banking disintermediation, did not go so far as to reach a point of no return. In other words, however problematic it might be for Germany there is still a possibility to reverse the liberalization process. This would undermine not only the process of financial integration in the Union but the very idea of a possibility of harmonization in strategic spheres of production system. This is of course an extreme

case and it might never happen. However the crucial character of these issues for the process of European integration underscores the importance of further research in this field.

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