

**VARIETIES OF CAPITALISM AND
NATIONAL SYSTEMS OF INNOVATION:
A NEW PERSPECTIVE ON THE CONVERGENCE DEBATE**

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ABSTRACT

VARIETIES OF CAPITALISM AND NATIONAL SYSTEMS OF INNOVATION: A NEW PERSPECTIVE ON THE CONVERGENCE DEBATE

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The main objective of this thesis is to propose a new perspective in terms of the convergence debate as it is discussed in varieties-of-capitalism (VoC) literature. The initial configuration of VoC stance as well as a part of the literature foresees the convergence of hybrids to a liberal market economy. By revisiting the core arguments of national-systems-of-innovation approach as well as the elaborations of the various critiques of VoC stance, we will propose the opposite. If we are to take ‘innovation’ as a starting-point of analysis and favor government intervention with respect to it, hybrids are more likely to converge to a political economy that resembles more a coordinated-one. However the meanings of the key terms such as ‘coordinated-market-economy’ and ‘convergence’ will be re-evaluated to be able to provide an adequate standpoint in terms of the convergence debate.

Keywords: Varieties-of-capitalism, national-systems-of-innovation, convergence, coordinated-market-economy

ÖZ

KAPİTALİZMİN ÇEŞİTLİLİĞİ VE ULUSAL İNOVASYON SİSTEMLERİ: YAKINSAMA TARTIŞMASI ÜZERİNE YENİ BİR BAKIŞ AÇISI

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Tezin ana amacı Kapitalizmin Çeşitliliği (KÇ) yazınında ele alınan yakınsama tartışması üzerine yeni bir bakış açısı getirmektir. İlk ortaya atıldığı dönemde KÇ ve daha sonra yazının bir bölümü ‘melez’ ekonomilerin liberal-piyasa-ekonomisine yakınsayacağını öngördü. Biz, ulusal-inovasyon-sistemleri yaklaşımının ana savları ile KÇ eleştirmenlerinin incelemelerini tekrar gündeme getirerek bunun tam tersini önereceğiz. Eğer analizin başlangıç noktası olarak inovasyon sürecini alırsak ve buna bağlı olarak devlet müdahalesini meşru hale getirirsek, ‘melez’ ekonomilerin ‘koordine-piyasa-ekonomisi’ne yakınsama olasılığının daha muhtemel olduğunu göstereceğiz. Fakat, yakınsama tartışması ile ilgili daha yeterli bir bakış açısına sahip olmak amacıyla ‘koordine-piyasa-ekonomisi’ veya ‘yakınsama’ gibi anahtar terimlerin ne anlama geldikleri tekrar inceleyeceğiz.

Anahtar Kelimeler: Kapitalizmin Çeşitliliği, ulusal inovasyon sistemleri, yakınsama, koordine-piyasa-ekonomisi

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CHAPTER 1

INTRODUCTION

1.1 A Brief Sketch of the Thesis

Varieties-of-capitalism (VoC) approach emerged at the turn of the 21th century with the path-breaking publication of *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage* by Peter Hall and David Soskice (Hall and Soskice, 2001). The approach aimed to bring a fresh air to comparative political economy literature by proposing a new set of analytical tools in the elaboration of national political economies. From the very beginning, the main objective of the stance has been set as to analyze and conceptualize the various institutional frameworks of political economies to reflect the variety that existed among them.

In this respect, one of the very core contentions of VoC perspective has been that the ‘best practice’ argument of mainstream is inadequate in the elaboration of national political economies¹. Contrary to the mainstream, VoC stance does not treat market mechanism as if it were the only institutional framework that is capable of providing satisfactory levels of long-term economic performance. In search of an alternative conjuncture that is equally successful with the ‘best practice’ of the mainstream, Hall and Soskice (2001) propose to go beyond the

¹ By having relied on the tools of neoclassical economics, mainstream constructs an economic system which is said to provide the best possible levels of long-term economic performance. That economic system is generally labeled as ‘free-market mechanism’, or if we are to utilize the terminology of Karl Polanyi it is the ‘self-regulating market system’. By relying on that *abstract and most efficient ideal* system, all institutional frameworks are expected to converge to that ‘best practice’. ‘Best practice’ argument refers to this standpoint of the mainstream.

marginalist analysis of neoclassical economics as well as the basic rule of supply and demand. Thereafter, by having emphasized the role of *strategic interactions* in a political economy alongside the importance of non-market modes of coordination, the stance constructs that alternative conjuncture which is labeled as coordinated-market-economy (CME).

The construction of a CME, together with a liberal one, led VoC stance to end up with a two-folded variety². These two institutional frameworks are labeled as the ‘pure types’ in the sense that they are the most efficient configurations among all. All political economies that cannot be categorized either as a LME or a CME are labeled as hybrids or mixture of the pure types. Then, representing one of the very core arguments of the stance, all political economies other than the pure types, in other words hybrids, are expected to converge either to a LME or a CME.

Since its emergence in 2001, VoC approach has become one of the most influential perspectives in comparative political economy literature. A number of scholars from diverse backgrounds have utilized the core arguments of the stance and applied them to a wide range of issues. Among those scholars, a particular group has tried to enlarge the initial scope of the perspective by integrating the developing world into the analysis. With the term *VoC literature*, we specifically refer to those studies. The initial objective of the VoC literature has given birth to varieties of ideas and standpoints in terms of the proper methodology that has to be adopted in the process. Those varieties of standpoints in turn have given birth to varieties of suggestions in terms of the fate of hybrids, such as where they tend to converge if that kind of a convergence is on the agenda to begin with.

Shortly after the emergence of VoC stance, another line of comparative political economy literature has begun to be materialized. Putting aside the required modifications that have to be undertaken in order to encompass developing economies, these studies have criticized the very core building blocks and

² What we refer by the term ‘liberal one’ is a liberal-market-economy (LME) representing the ‘best practice’ of the mainstream.

arguments of VoC approach, undermining the very validity of the perspective even in the elaboration of the developed world. We label that line of the literature as *the critiques of VoC stance*. Among several ones, the elaborations of the critiques of VoC stance have also significant implications on the fate of hybrids, if we are to stick to the terminology of VoC approach.

With respect to the above background, the major objective of this thesis is to provide a new perspective on the convergence debate as it is discussed in VoC approach. By ‘convergence debate’ we specifically refer to the fate of developing countries, or hybrids if we are to apply VoC terminology. To be able to accomplish our aim adequately, we structured the thesis as follows.

In Chapter 2, following this introduction, we exclusively focus on VoC stance. First, we elaborate Hall and Soskice (2001) in detail, where the theoretical construction of the approach is put forward. After elaborating the background of the perspective along with its building blocks and core arguments, we relate these discussions to the convergence debate. As will be concluded, hybrids tend to converge to either of the pure types in Hall and Soskice (2001) if we are to put all concerns aside other than efficiency to let the notion of *institutional complementarity* play its part. These ‘other concerns’ mostly refer to the political realm which has its own logic and dynamics that cannot be conceptualized with reference to efficiency considerations only. However, the chances of convergence are not equally distributed among the pure types as it is more likely that hybrids will converge to a LME. On the one hand, it is easier for the governments of the developing world to implement deregulatory policies. On the other hand, CMEs have a distinctive set of characteristics that can only evolve in a historical context. One such example is the *common knowledge* containing the informal institutions of a CME. That kind of knowledge cannot be created by the governments of developing countries from nowhere.

In the latter part of Chapter 2, we divert our attention to VoC literature to examine how the initial configuration of the stance has been applied to the developing

world. More importantly, we examine how the initial arguments of the stance concerning the convergence debate have been altered with respect to the enlargement of the scope. In this respect, we divide VoC literature into four. First group consists of the studies that apply the initial construct of the perspective to the developing world and classify the countries at stake as a LME or a CME. Studies that again apply the initial version of the stance to developing countries but this time classify the countries that are of concern as a hybrid constitute the second group. The third one is composed of the studies that apply the initial version of the stance to the developing world to show the very limitations of the initial configuration. In those studies, the convergence paths of hybrids are ambiguous. The last group, which is the most important one for the purpose of this work, consists of the studies that propose to integrate the distinguished characteristics of the developing world into the analysis at the very outset. Even though the initial scope and the emphasis of these studies vary, they put forward similar conclusions which have considerable effects on the convergence debate. They mainly emphasize (1) the externally dependent character of the developing world (2) the role of governments and transnational companies (TNCs) and (3) the importance of institution-building process. By having emphasized the above characteristics of developing political economies, these studies construct additional core types to represent the developing world. Although different types of core types are proposed, one inference is certain. Hybrids do not tend to converge to the pure types that are outlined in Hall and Soskice (2001).

We benefit from the above-described arguments and findings of VoC literature while developing our own position in terms of the convergence debate. However, we intend to go beyond that literature in one important respect. Although a line of the literature appreciates and examines the importance of the innovation process in a developing political economy, it only superficially touches upon the issue. The main focus is never on the innovation process; ‘innovation’ is neither defined nor elaborated in an adequate manner. The same argument is also valid when the initial configuration of VoC stance is at stake. In Hall and Soskice (2001),

‘innovation’ is treated as a mere consequence that does not play a major role in the workings of a political economy.

In this respect, in Chapter 3, we exclusively focus on national-systems-of-innovation (NSI) approach to recover the required link between the innovation process and the workings of a developing political economy. Having examined the prior literature that NSI approach relies on as well as its building blocks and core arguments, we pass to the implications of these standpoints on the convergence debate. As will be concluded, the very nature of the innovation process undermines the construction of an ideal type of political economy. Thus, no pure types of the sort that is found in VoC analysis is put forward in NSI approach³. Accordingly, developing countries are not expected to converge to an abstract, ideal pure type in NSI perspective. Furthermore, as all of the political economies are seen as moving targets, the destinations of which are unknown to the contemporary observer, the approach also does not expect a particular framework to converge to an actually-existing institutional infrastructure. In that way too NSI perspective does not foresee a clear pathway for the developing world.

After having elaborated VoC literature with a special emphasis on the convergence debate to which we aim to contribute, and having examined the main characteristics and arguments of NSI approach relying on which we will shape our own position, in Chapter 4 we propose a new perspective on the convergence debate. As will be argued, if we are to take ‘innovation’ as a starting-point of analysis and justify government intervention with respect to it, the developing

³ A ‘pure type’ or an ‘ideal type’ of political economy refers to an abstract, theoretical construct which is efficient and stable unless an external factor disturbs the initial equilibrium. In that sense it is similar to the ‘best practice’ argument of the mainstream which relies on Walrasian general equilibrium. VoC stance follows this insight of the mainstream and proposes two ‘pure types’ of political economy relying on which the efficiency of actually-existing institutional frameworks is evaluated. Having been influenced by the analysis of Joseph Schumpeter, however, NSI perspective departs from that methodology. With reference to the nature of the innovation process that entails high levels of uncertainty, the construction of a ‘pure’ or an ‘ideal’ type of a political economy is undermined.

world is more likely to converge to a political economy that resembles a coordinated-one. However the meanings of the key concepts such as ‘coordinated-market-economy’ and ‘convergence’ are different than their meanings in VoC stance. While in VoC stance CME represents a political economy in which firms solve their coordination problems mostly *via* non-market modes of coordination, in our conception CME refers to a political economy which inherits the main characteristics of a strong innovation system. While in VoC perspective ‘convergence’ is defined as a process in which the characteristics of a particular institutional configuration are reconstituted to end up with a structure that is similar to either of the pure types, in our elaboration ‘convergence’ is defined as a process in which developing political economies enhance their own capacities to become a CME, in the sense that we utilize the term.

In Chapter 5, we conclude the thesis.

CHAPTER 2

VARIETIES-OF-CAPITALISM APPROACH

2.1 The Emergence of a Path-Breaking Stance

Having acquired its building blocks from a number of studies published in the 1990s, the groundbreaking VoC approach emerged with the publication of *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage* by Peter Hall and David Soskice in 2001 (Hall and Soskice, 2001). The approach attracted much attention in comparative political economy literature and has been applied to a wide range of issues by virtue of its interdisciplinary perspective. The writers explicitly propose VoC stance as a basis to facilitate interaction among diverse disciplines such as economics, political science, and law and that has been actually been observed in literature during the last decade.

The principal aim of the VoC approach is to elaborate the variety within capitalist system. The ‘best practice’ argument of neoclassical economics is rejected on the ground that there exists a certain institutional framework which is systematically different from the one that neoclassical economics investigates. In other words, the exclusive focus of neoclassical economics on ‘market system’ as if it were the only institutional structure that capitalism produces is deficient. ‘Market system’ tells only one part of the story and there is a need for a complementary framework which can effectively deal with the other side of the story⁴. Thereafter, having extensively relied on the propositions of institutional economics, the goal is

⁴ It is clear that Hall and Soskice (2001) propose VoC approach as a complementary perspective to neoclassical economics. It is readily accepted that neoclassical economics can successfully elaborate one part the story, confines of which are not questioned by the VoC stance. The latter is only constructed so as to elaborate the other part of story which cannot be dealt effectively with the former.

identified as systematically analyzing “the institutional similarities and differences among the developed economies” and beyond that “to elucidate the processes whereby national political economies change” (Hall and Soskice, 2001: 1-65). Although the primary focus of the perspective is on the developed economies, scholars are also invited to apply the VoC stance to developing economies.

Hall and Soskice (2001) propose VoC stance as an attempt to go beyond the three influential perspectives in comparative political economy that emerged in the post-war era. These are the modernization approach, neo-corporatism, and social systems of production. Modernization approach goes back to the seminal work of Shonfield (1965). Having put the major problem in terms of modernizing the pre-war industries, the approach gives certain leverage to public sector due to its planning capabilities. Thus, the primary focus is especially on the institutions that facilitate planning which are orchestrated by governments. The analysis mainly covers the developed economies of France, Japan, and Britain; the first two being the exemplary successes and the last one being the exemplary failure. The specific criticism of VoC stance towards modernization approach is its excessive and misleading focus on public sector. The approach is accused of overestimating the capabilities of governments which have been further downplayed in contemporary world as a result of the substantial increase in economic openness. Thereafter, a shift in the primary focus is suggested from public sector towards its private counterpart as the latter one constitutes a more rational starting-point of analysis in the face of economic openness. Neo-corporatism is said to emerge in order to deal with the inflationary pressures of the 1970s. This approach specifically focused on the relationship between governments and trade unions. As it is argued, the more successful a government is in effectively negotiating with trade unions, the more successful it becomes in dealing with inflationary pressures. As the limits of this negotiation are especially determined by them, the primary focus is on the structure and organization of trade unions. In a parallel fashion to modernization approach, neo-corporatism is specifically criticized on the ground that it undermines the role that business associations play in a political economy.

Again, a shift in the primary focus is suggested this time from trade unions towards firms. Social systems of production approach emerged in the 1980s and 1990s to elaborate the effects of technological change on the organization of production. Accordingly, the primary focus is on firm behavior. Hall and Soskice (2001) utilize the concept 'social systems of production' to encompass three distinguished and yet related literatures: sectoral governance, national innovation systems, and flexible production regimes. These stances are said to study new production regimes in the light of an institutionalist perspective. The specific criticism of VoC approach towards social systems of production is its negligence of the importance of nation-wide institutions. Although the benefits of regional and sectoral levels of analysis are appreciated, the need for a more encompassing unit of analysis is underlined.

In addition to their specific criticisms towards each of the three perspectives, the writers underline a common deficiency of modernization approach, neo-corporatism, and social systems of production. That is the "conception of how behavior is affected by the institutions of the political economy" to which Hall and Soskice (2001) refer as "where we break most fundamentally from these approaches" (Hall and Soskice, 2001: 4). Having acknowledged their various characteristics such as being socializing agencies, the power an institution confers on economic actors, or the sanctions and incentives it provides; Hall and Soskice (2001) insistently emphasize the role of institutions in relation to strategic interactions, a point that the three perspectives "tend to miss or model too incompletely" (Hall and Soskice, 2001: 5). Thereafter, one of the most crucial arguments of VoC stance is put forward as "the most important institutions distinguishing one political economy from another will be those conditioning such [strategic] interaction" (Hall and Soskice, 2001: 5). Scholars are invited to focus on that kind of institutions.

As the writers indicate in a footnote, the criticisms of Hall and Soskice (2001) towards modernization approach, neo-corporatism, and the so-called social systems of production are brief and stylized due to necessity. Thus, some

discussions concerning the variety within these three stances are inevitably neglected (Hall and Soskice, 2001: 2). This point is particularly important for the purpose of this study. As we will try to underline in the following parts, NSI approach which is categorized under the rubric of social systems of production is never seriously challenged by VoC approach. What is more, one can actually challenge the VoC stance for having utilized the core arguments of NSI perspective. Postponing this task to Chapter 4, we will now further our elaboration of VoC stance by focusing on its building blocks.

2.2 The Building Blocks

VoC is an actor-centered approach to political economy. The analysis dwells upon the various actors of economy such as individuals, firms, producer groups and governments; the structure and interplay of which constitute the whole economy. Organized capital and organized labor are of special significance. These actors are attributed a certain level of rationality while determining their objectives and constructing their relationships. Thereafter, key issues in political economy are conceptualized in game-theoretic terms. Although the perspective recognizes the role and importance of all the mentioned actors, the initial and exclusive focus is on firms as firms are seen as “the key agents of adjustment in the face of technological change or international competition whose activities aggregate into overall levels of economic performance” (Hall and Soskice, 2001: 6). This argument reflects one of the building blocks of the stance as Hall and Soskice (2001) distinguish VoC perspective for having relied on this firm-centric view.

VoC approach subscribes to the idea that the main goal of firms is “to develop and exploit core competencies or dynamic capabilities understood as capacities for developing, producing, and distributing goods and services profitably” (Hall and Soskice, 2001:6). This open-ended definition immediately implies, if not automatically argues, that there might be more than one way to achieve this objective. Thus, the flexible characteristic of the definition serves well to the ambitions of the stance which tries to elaborate the variety within capitalist system. However, the real issue at stake here which is definitely more important

than the nature of the definition itself is by relying on what circumstances one should conceptualize different ways of achieving dynamic capabilities and derive variety. In other words, to which specific dimension should the analysis focus on in order to (1) establish a meaningful basis for further analysis (2) construct a fruitful comparative framework? The answer that VoC approach provides to these questions reveals another building block of the perspective: focus on coordination as a differentiating dimension. As it is argued, the only way that firms will ever be able to develop dynamic capabilities is to effectively solve their coordination problems in a given institutional framework. In order to do that, firms have to engage in various relationships both within and without the firm which necessitates the stance to adopt a relational view of the firm. Then, having adopted that kind of a perspective the crucial argument of the approach becomes “national political economies can be compared by reference to the way in which firms resolve the coordination problems they face” (Hall and Soskice, 2001: 8). Hall and Soskice (2001) categorize these coordination problems under five main spheres. The first one is industrial relations. It encompasses the labor and employer organizations as well as the interaction among them which together have a say in the determination of wages and productivity levels. In macroeconomic dimension they have an impact on unemployment and inflation. The second is vocational training and education. On the one hand, this category examines the kind of skills that firms expect from the labor force and on the other hand it questions the propensity of labor force to invest in different kinds of skills. The efficiency and effectiveness of the match-up of the expectations of firms and labor force ultimately determine the level of competitiveness of whole economy. The third sphere is corporate governance. Here, the different ways that firms utilize to finance their activities are analyzed along with the expectations of investors who are willing to be convinced that their investments will be worthwhile. The structure of corporate governance influences the kind of investments that firms tend to undertake which eventually leads to specialization. The fourth one is inter-firm relations. In order to develop their dynamic capabilities firms engage in various forms of relationships with other firms, be it

their suppliers or customers. The ones that are directly related to technology such as standard-setting, technology transfer, and collaborative research and development are of great significance. Different forms of these relationships specify the general route that firms have to follow to be able to maintain their competitiveness. The last sphere covers the interaction between firms and their own employees. The main emphasis is on moral hazard and adverse selection problems, the solutions of which influence competencies of individual firms and production regimes of the whole economy. Having argued that national political economies can be compared with respect to the way that firms solve their coordination problems and having specified the five spheres of coordination accordingly, Hall and Soskice (2001) distinguish “two types of political economies, liberal market economies and coordinated market economies, which constitute ideal types at the poles of a spectrum along which many nations can be arrayed” (Hall and Soskice, 2001:8).

As a number of scholars belonging to a wide range of disciplines in social sciences implicitly or explicitly underline “we are all institutionalists now” (Pierson and Skocpol 2002: 706; Hodgson, 2009:3). VoC stance is no exception to the general tendency⁵. It especially makes extensive use of the ideas of new institutional economics, specifically through Douglass North and Oliver Williamson. Subscribing to the analysis of North (1990), the stance distinguishes institutions from organizations⁶. Institutions are defined as “set of rules...that

⁵ It is still debatable as to what extent the stance utilizes and should utilize the core ideas of original institutional economics. As mentioned, the perspective is proposed as a complementary framework to neoclassical economics. It reflexively follows the core arguments of neoclassical economics reflected in the concepts rationality, efficiency, and equilibrium. However, as the analysis of original institutional economics demonstrate, especially the works of Thorstein Veblen and Karl Polanyi, these concepts are not adequate for the elaboration of political economies. Thus, although VoC stance appreciates the role of institutions in a political economy, it is questionable to what extent the approach captures the true significance of institutions.

⁶ Boliari and Topyan (2007) claim that in VoC stance the terms institutions and organizations are utilized in an ambiguous way. That ambiguity overshadows the exact roles played by institutions and organizations in a political economy. While the role of institutions is overestimated, the role of organizations is underestimated. Moreover, the ‘enforcement’ characteristic of institutions is not taken into account as it is implicitly assumed to be there. ‘Enforcement’ is implied automatically by the very presence of institutions. Hodgson (2006), on the other hand, objects the idea that

actors generally follow, whether for normative, cognitive, or material reasons” (Hall and Soskice, 2001:9). Organizations on the other hand are described as “durable entities with formally recognized members, whose rules also contribute to the institutions of the political economy” (Hall and Soskice, 2001:9). From these definitions one of the crucial arguments of the stance is derived: strategy follows structure. Although some firms may enjoy some kind of market or political power, they can never have enough potential to alter the overall institutional framework. Institutions, especially the ones that condition coordination, are collective and encompassing in their very nature. Thus, they cannot be created by one firm and cannot serve to the likes of a particular group of firms as they reflect the mutual interests of different actors who follow their own strategies. Thereafter, firms, in general, are seen as institution-taker, without denying the importance of the opposite causation.

Another building block of VoC approach that lies at the heart of the analysis is institutional complementarities. It would be fair enough to say that if until now our analysis has revealed the ‘body’ of the framework, this concept will provide the ‘body’ with its ‘soul’. Institutional complementarity occurs when “the presence (or efficiency) of one [institution] increases the returns of the other [institution]” (Hall and Soskice, 2001: 17). Here, “returns” refer to total gains irrespective of distributional concerns and efficiency is defined as “the net returns to the use of an institution given its costs” (Hall and Soskice, 2001: 17n). Thereafter, institutional complementarity establishes the link between the different and seemingly independent parts of a political economy. To be more concrete, the five spheres of industrial relations, namely vocational training, corporate governance, inter-firm relations and relations vis-à-vis the firm’s employees are interconnected as the presence or efficiency of one sphere affects the efficiency of the others.

organizations are conceptually different from institutions. Organizations are formed by individual actors and there is always a possibility that internal conflicts may arise. Consequently, elaboration of organizations as if they were homogeneous entities at all times is deficient. Organizations are special kind of institutions with their own characteristics and should be investigated as such.

Besides its inferences from the view point of the convergence debate that will be elaborated later, institutional complementarities has other important implications for the analysis. First, it gives VoC stance a systematic character. Although not explicitly defined in Hall and Soskice (2001), we can safely argue that system in the sense that the writers utilize the term consists of a number of elements that are functionally related to each other. Consequently, the idea that institutions are randomly distributed across national political economies is rejected, by insisting on the fact that “different types of firm relationships varies systematically across nations” (Hall and Soskice, 2011: 9). Second, institutional complementarities give rise to yet another important concept of the stance. That is institutional comparative advantage. By definition, whenever there is complementarity between institutions the result is an efficient institutional framework providing satisfactory rates of long-term economic growth. However, if we put aside growth rates and focus on other dimensions such as types of innovation undertaken, speed of technology diffusion or degrees of income equality provided, different institutional frameworks provide different levels of success. This stems from the fact that their particular institutional infrastructures inherit institutional comparative advantages in different spheres. Third, the seemingly irrational attitudes of national political economies in the international arena when evaluated in the light of the ‘best practice’ argument, gains rationale in their own right. Liberal market economies (LMEs) and coordinated market economies (CMEs) have their own distinguished institutional frameworks, thus it is only natural for them to react differently to similar shocks or provide different solutions to the same economic problems. What conditions their different behavior is the particular comparative institutional advantages they have in the first place, as the primary aim is not to undermine but strengthen these advantages. Hall and Soskice (2001) exemplify this point by focusing on the evolutionary process of the European Union (Hall and Soskice, 2001: 53).

Until now, we outlined the initial formulation of VoC stance as presented in Hall and Soskice (2001). First, we briefly examined the prior literature that the

approach relies on to understand the primary concern of the stance as well as its direction of analysis. Then, we evaluated the building blocks of the perspective to see (1) how it aims to go beyond that literature (2) how it constructs its own analysis. In the light of this brief introduction, we will now proceed to the convergence debate. After putting forward what we understand from the term ‘convergence debate’, we will examine that debate from the perspective of Hall and Soskice (2001). Our aim will be to reflect and elaborate the core arguments of the initial formulation of the stance on the convergence debate.

2.3 The Initial Formulation and the Convergence Debate

There are two possible ways to discuss convergence unless one does not subscribe to the idea that there is only one type of political economy to which all other economies tend to converge. In that particular case, the desirability of the ‘best practice’ is not questioned in itself as it might be only ‘natural’ to converge there; it might constitute the only ‘obvious’ way to achieve high rates of growth; or both. Consequently, the only option left is to discuss how political economies might converge to the ‘best practice’. However, our elaboration of VoC stance so far already revealed that the perspective does not subscribe to the ‘best practice’ argument as it sees markets as “institutions that support relationships of particular types” (Hall and Soskice, 2001: 9). It proposes two pure types of political economy that are LME and CME being the “ideal types at the poles of a spectrum along which many nations can be arrayed” (Hall and Soskice, 2001:8). Thereafter, there are two ways to discuss convergence from the perspective of VoC stance. First is the convergence between pure types. Here, the stability and desirability of the pure types are questioned. Second is the convergence to pure types. Here, the fate of hybrids which are actually a mixture of the pure types is questioned.

2.3.1 Convergence *between* the Pure Types

In terms of the first discussion, that is the convergence between pure types, the proposition of VoC stance is clear. LMEs and CMEs are both equally desirable and stable in the sense that they both have their distinguishing and yet efficient institutional frameworks. They both provide their firms with operative and

institutional complementarities by relying on which firms effectively coordinate their endeavors. However, the way that the firms of pure types solve their coordination problems is significantly different among the two. Their strategic capabilities are particularly shaped by the overarching institutional conjuncture which substantially differs among LMEs and CMEs. Thus, it is beneficial to discuss the unique institutional infrastructures of the pure types before furthering our discussion.

The firms of LMEs heavily rely on competitive market arrangements and hierarchies to solve their coordination problems which are categorized under five headings as we discussed before. Market institutions are of special significance as they provide the efficient environment for firms to gather information and interact accordingly. These institutions are said to be arm's length relations shaped in a highly competitive environment, formal contracting, law of demand and supply in accordance with the price signals generated in markets, and hierarchies. Neoclassical and new institutional economics are proposed as adequate tools for the analysis of LMEs, with their focus on marginal calculations and hierarchies respectively.

Having relied on the levels of stock market capitalization rates and employment protection levels, Hall and Soskice (2001) classify the US, Britain, Australia, Canada, New Zealand and Ireland as LMEs. These two empirical tools correspond to the two sub-spheres of political economy that are corporate governance and industrial relations respectively. Stock market capitalization rates reflect how firms primarily finance their activities. High scores imply greater reliance on market modes of coordination in financial sphere and vice versa. Employment protection levels show how labor markets are primarily organized. High scores imply greater reliance on non-market coordination in industrial relations' sphere vice versa. As expected, all of the above countries have high scores in stock market capitalization and low scores in employment protection. After this brief categorization, the writers analyze the US as a case study to show how the five spheres of a LME are interconnected and simultaneously coordinated by reliance

on market modes of coordination. To put it very briefly, firms in the US have to pay attention to their current balance-sheet performances in order to finance their activities. They heavily benefit from the existence of fluid labor markets, as in times of crisis they can easily lay-off workers to sustain immediate success in terms of balance-sheet criteria. Employees who face with a highly uncertain environment tend to develop general skills in order to acquire a kind of flexibility in times of crisis. The educational and training schemes support the development of general skills. In consequence, all the five spheres of political economy are interrelated and perform in harmony. Hall and Soskice (2003: 244) reflect the possible variation among LMEs by having utilized the methodology developed in Hall and Gingerich (2002). Although firms in Canada, Australia, New Zealand, and Ireland heavily rely on market modes of coordination to solve their coordination problems, that reliance is not at the same level with the US and UK.

Contrary to their counterparts in liberal ones, firms in CMEs do not intensely utilize market institutions to solve their coordination problems. Instead, they primarily rely on non-market modes of coordination that support collaborative rather than competitive engagements. In an economy where equilibrium cannot be reached with reference to the interplay of supply and demand conditions, one particular way to achieve that is to find out the 'equilibrium strategies' among actors. If actors can reach to an equilibrium strategy yielding higher returns to all, the problem is effectively solved. Thus, institutions of CMEs tend to encourage collaborative relationships in order to reduce the uncertainty of actors about each other's behavior and enable them to engage in trustworthy relations. In general, the institutions of CMEs are said to have capabilities to foster (1) actors' exchange of information (2) the observance of behavior (3) the charge to disloyalty that harms cooperative engagements (4) deliberation. Hall and Soskice (2001) specifically draw our attention to the role of deliberation in CMEs, as they think that the literature overlooks its importance.

Again with reference to the stock market capitalization rates and employment protection levels, Hall and Soskice (2001) classify Germany, Japan, Switzerland,

the Netherlands, Belgium, Sweden, Norway, Denmark, Finland, and Austria as CMEs⁷. These countries cluster around low scores in stock market capitalization rates and high scores in employment protection levels. The writers analyze Germany as a case to show how the five spheres of a CME are interconnected and simultaneously coordinated by reliance on non-market modes of coordination. To put it very briefly, firms in Germany can secure patient capital relying on their corporate governance structure that is heavily composed of banking sector. Patient capital refers to long-term capital that enables firms to focus on long-term strategies by postponing the immediate pressures of short-term profitability. Thus, although it has importance, firms are not obliged to consider their current balance-sheet performances immediately. Their access to patient capital enables firms to offer long-term contracts to their employees. The structure of trade unions also allows employees to demand that kind of contracts and engage in effective negotiations with business associations. Employees who feel 'safe' in a specific company tend to develop industry-specific skills regardless of the situation in other industries. The educational and training schemes support the development of such industry-specific skills. In consequence, all the five spheres of political economy are interrelated and perform in harmony. Hall and Soskice (2001) also analyze briefly the possible variations that might be observed within CMEs with reference to the political economies of Germany and Japan. In short, industry-based coordination is witnessed in northern European countries the example of which is Germany, and group-based coordination is witnessed in Japan and South Korea. In the former type, actors of political economy are organized along sectoral lines. In the latter one, actors of political economy are organized beyond

⁷Campbell and Pedersen (2007) do not classify Denmark as a CME contrary to VoC stance. As the writers argue, Denmark has developed rather hybrid forms of coordination in its political economy due to the increased influence of market forces and changes in the structure of collective learning and decision making. Having relied on the Danish case, then, the writers challenge the idea that the pure types conclusively perform better than their hybrid counterparts in terms of economic success. Emmenegger (2010) underlines an apparent contradiction in the classification of Switzerland as a CME. Although CMEs are said to display high levels of job security, in Swiss economy the contrary is observed. In an attempt to examine the reasons for that, the writer evaluates the historical development process of job security regulations in Switzerland and concludes that one of the main causes was the presence of a weak federal state.

sectoral lines through large family companies labeled as *keiretsu*. Following that difference, these economies manage technology transfer, skill acquisition, and other related issues differently.

As LMEs and CMEs have different institutional frameworks that provide different incentive schemes to their actors, they tend to show different levels of success in terms of different criteria. First and most important, firms of pure types tend to undertake different types of innovation. While LMEs tend to innovate *radically*, CMEs tend to innovate *incrementally*⁸. Radical innovation implies significant changes in product lines or production process or introduction of entirely new goods to the market. It is especially common to fast-moving technology sectors such as biotechnology, semiconductors, and software development. Incremental innovation implies continuous, small scale improvements to the existing product lines or production process. It is especially common in the production of capital goods such as machine tools, consumer durables, and engines. The pure types specialize in the production of goods that are supported by their institutional frameworks following a kind of Ricardian logic and innovate accordingly⁹. Hall and Soskice (2001) reflect this specialization by analyzing the patent specialization figures in different technology groupings in the United States in 1983-84 and 1993-94. Second, the pure types do not distribute well-being alike as the figures of employment structure and income inequality reflect¹⁰. While in LMEs levels of paid employment and income inequality are high, in CMEs working hours are shorter and income inequality is low. Third, the speed of technology diffusion varies. In general, fluid labor markets that enable shift of

⁸ Taylor (2004) opposes to this categorization on the ground that (1) the US is a major outlier in the sample relying on which the classification is made (2) empirical data does not support the divide.

⁹ Focused on the 'Neuer Markt' failure of Germany at the turn of the century, Vitols and Engelhardt (2005) reveal what happens if the opposite scenario takes place.

¹⁰ Bernard (2008) applies VoC stance to analyze inequality in a comparative context with a particular focus on the Canadian economy. As the writer argues, although Canada is one of the most egalitarian countries among LMEs, in terms of wage inequality it is nearly at par with the US. What conditions the mixed profile of the country in terms of inequality is its distinguishing structure of domestic political-economic institutions.

personnel across firms and competitive market engagements that enable hostile takeovers are said to result in faster technology transfer. Thus, LMEs tend to be quicker than CMEs in terms of technology diffusion. Fourth, the levels of quality control vary. As the nature of incremental innovation necessitates high levels of quality control at all times, CMEs tend to be more successful in that field. Consequently, their firms tend to be more competitive in goods whose demand is more sensitive to quality rather than price. On the contrary, firms of LMEs tend to be more competitive in goods whose demand is more sensitive to price rather than quality.

Having discussed the unique institutional infrastructures of the pure types as well as their consequences, we may continue our elaboration of convergence between pure types. As stated, LMEs and CMEs are equally desirable. In the words of Hall and Soskice (2001) “although each type of capitalism has its partisans, we are not arguing . . . that one is superior to another” as “despite some variation over specific periods, both liberal and coordinated market economies seem capable of providing satisfactory levels of long-run economic performance” (Hall and Soskice, 2001: 21)¹¹. The other main issue concerning the convergence debate is the stability of the pure types. Do LMEs and CMEs tend to persist over time or not? VoC perspective answers this question by re-visiting the globalization debate as the arguments of the ‘best practice’ stance mainly rely on it. First, it is argued that the basic structures and strategies of firms are not similar across national political economies as it is generally assumed. More than once, historical experiences have revealed the fact that firms operating under different institutional frameworks react differently to same shocks (Hall, 2007). This stems from the very fact that firms derive their strategies with reference to different institutional setups. Accordingly, different interactions strengthen their institutional comparative advantages. Second, low labor costs do not immediately urge firms to shift their production lines off shore as it is generally expected. Firms consider more important the institutional infrastructures of the economies

¹¹ Gingerich and Hall (2002) and Hall and Gingerich (2004) empirically support the claim.

that become more attractive due to low labor costs and evaluate if that framework is compatible with their own. Thus, firms are said to be less mobile than the ‘best practice’ argument implies. Third, internationalization of finance does not necessarily undermine the overall institutional infrastructures of CMEs as some scholars argue. As they suggest, the global nature of finance will force firms of CMEs to react in line with the demands of foreign investors. These investors primarily shape their investment decisions relying on current balance sheet criteria. Consequently, firms in CMEs will have to alter their strategies and relationships that were once based on the promise of ‘patient capital’. This initial change in corporate governance sphere will eventually affect the other spheres as well following the complementarity logic. Although Hall and Soskice (2001) appreciate the importance of the change in corporate governance structures, they do not think it will undermine the distinguished institutional framework of CMEs. In a direct opposition to the process described above, the writers propose that internalization of finance will further strengthen the collaborative ties in CMEs as “cooperation becomes more, not less, important in such contexts” (Hall and Soskice, 2001: 61). In line with this argument, VoC scholars foresee a ‘dual convergence’ in the sense that the pure type clusters will become more and more united within themselves. Thereafter, their differences with respect to each other will be sharpened instead of disappearing (Iversen and Pontusson, 2000; Thelen, 2001; Howell, 2003: 108).

In consequence, VoC approach clearly and explicitly proposes a two-fold variety. These are LMEs and CMEs which are both desirable and stable in the long-run. They are desirable in the sense that their efficient institutional frameworks can exploit the fruits of institutional complementarities to the greatest extent. Thus, the political economies of the pure types show superior long-run economic performances. They are stable in the sense that they do not tend to converge to

each other during the course of time as they persistently keep their distinct institutional infrastructures¹².

We will now pursue our discussion by turning our attention to the second line of the discussion. That is the convergence *to* the pure types. Our primary aim will be to examine the fate of hybrids from the perspective of the initial configuration of the stance. The stability and desirability of the hybrids will be questioned along with the possible pathways that they are said to follow during the course of time.

2.3.2 Convergence *to* the Pure Types

In terms of convergence *to* the pure types, VoC stance puts forward a rather flexible framework that is substantially case-dependent. This stems from the fact that although the approach is particularly designed to analyze the developed OECD countries, there is a clear urge to integrate developing economies to the analysis as well. This task is mainly assigned to future scholarship as it is beyond the initial scope of the inquiry. Nevertheless, there is no harm in briefly sneaking to this zone by proposing general arguments.

To begin with, all political economies besides LMEs and CMEs are treated as mixtures of the pure types that can be labeled as mixed market economies or hybrids. The explicit examples given in Hall and Soskice (2001) are France, Italy, Spain, Portugal, Greece, and Turkey. These economies are said to have a large agrarian sector and witness extensive state intervention in their recent history. Thus, their institutional frameworks are composed of non-market modes of coordination in corporate governance sphere, but market modes of coordination in industrial relations on these clustering. These six countries are seen as a potential third variety that can be named as ‘Mediterranean type of capitalism’. France is briefly analyzed as a case study to reflect the relevance of VoC stance in terms of the evaluation of political economies that fall outside the domain of LMEs and

¹² Graf (2009) examines the internationalization paths of British and German universities as parts of specific higher education systems and concludes that they have taken divergent paths as VoC anticipates.

CMEs. Besides the Mediterranean type, all other developing countries are implicitly treated as hybrids.

It is clear that institutional frameworks of hybrids are not desirable in themselves due to their dysfunctional configurations. They cannot enjoy the full benefits of institutional complementarities as their institutions simply do not complement each other. One such example is the institutional frameworks of the Mediterranean countries. Market modes of coordination in the corporate governance sphere do not complement non-market modes of coordination in the industrial relations sphere. Thereafter, hybrids are expected to perform inferior economic performances compared to their pure counterparts. As a principle, the ideal scenario for hybrids in Hall and Soskice (2001) is to converge to either of the pure types. Then, the question becomes: To which pure type do hybrids tend to converge?

In both Hall and Soskice (2001) and Hall and Soskice (2003) the writers explicitly subscribe to the idea that hybrids are more likely to converge to a political economy that resembles a liberal one. First, for governments it is easier to design and implement policies that support the institutional frameworks of LMEs. Deregulatory policies can be put into practice more easily as governments are not expected to perform such enormous tasks that go beyond their capacities. Second, although internationalization of finance does not imply the convergence of CMEs to their liberal counterparts, it encourages or rather forces hybrids to undertake that kind of convergence. Hybrids do not inherit a coherent institutional framework of their own, efficiency of which may resist the pressures of globalization. Consequently, once it becomes compulsory to act in line with the demands of foreign investors in the corporate governance sphere, it becomes rational to alter the rest of the four realms accordingly.

In addition to the above circumstances that favor the convergence of hybrids to a LME directly, there is another one which indicates the same pattern indirectly. That is the nature of the institutional frameworks of CMEs. As explained, a

desirable and efficient structure of a CME necessitates the existence of coordinated actors throughout political economy. These actors who are well-organized within themselves pursue their self-interests in a rational way by having engaged in various relationships with one another. For instance, there are strong trade unions that can effectively represent workers on the one hand; and there are strong employer associations that can effectively represent firms on the other hand. These two can effectively negotiate relying on various institutional mechanisms as explained; thus, are able to reach an efficient equilibrium outcome. The crucial point that is insistently emphasized by Hall and Soskice (2001, 2003) is that this coordination can only be sustained if such a structure exists in the first instance. It is too much for governments to explicitly launch that kind of coordination in the absence of internally and externally coordinated actors, even if there is a clear inclination. First, the complex nature of outcomes makes it impossible for governments to solve the coordination problems of actors just through direct regulation. Second, imperfect information fuels the complexity problem. Third, the institutional frameworks of CMEs evolve through the course of time which brings with it a certain *common knowledge* or *common cultural understanding* attributed to the whole economy. All actors implicitly and reflexively inherit the *common knowledge* which is rather informal by virtue of its nature. Governments cannot simply create that *common knowledge*. As a consequence, government intervention has its limitations due to “information asymmetries, high transaction costs, and, time-inconsistency problems” (Hall and Soskice, 2001: 47) relying on which one can understandably claim “a long-term historical bias leaning in the direction of liberalization” (Hall and Soskice, 2003: 245). Relying on the above limitations of government intervention, instead of formulating the problem as one of “inducing economic actors to cooperate with the government” as the previous literature did, VoC stance puts the problem as one of “inducing economic actors to cooperate more effectively with each other” (Hall and Soskice, 2001: 45). Government is only one of the required actors, neither more nor less.

To sum up, the ideal scenario for hybrids is to converge to a pure type in order to enjoy the benefits of institutional complementarities. Although in some cases hybrids may tend to converge to a CME in case of the prior existence of a common knowledge, in general they tend to converge to a political economy that resembles more a liberal one. However, it is beneficial to briefly mention another problem which concerns the convergence of hybrids to both pure types. Efficiency considerations do not automatically result in convergence although they automatically imply, as the agenda of governments are not entirely composed of that kind of considerations. Interest groups, populist policies, or other factors that overshadow efficiency might have the higher priority. Thus, the convergence process is inextricably linked to the political instance which cannot be evaluated with reference to efficiency considerations only. Although Hall and Soskice (2001, 2003) and Hall (2005) explicitly acknowledge that kind of a limitation, the writers still argue that efficiency considerations can explain a considerable part of the general picture. In the last chapter, we will particularly focus on this discussion by questioning the adequacy of that kind of a narrow focus in the elaboration of political economies.

Up to now, our focus was solely on the initial configuration of the perspective. We extensively focused on Hall and Soskice (2001) where the theoretical underpinnings of the approach have been put forward. We examined the initial ambitions and building blocks of the perspective, and elaborated its core arguments concerning the convergence debate. Now, we will expand our focus by moving away from the initial construction of the stance to the VoC literature. By VoC literature, we refer here specifically to the studies that try to expand the scope of the perspective by having integrated developing countries to the inquiry. Below, we will elaborate the diverse arguments of the VoC literature in terms of (1) the proper methodology that one has to adopt to effectively incorporate developing countries to the analysis and (2) their implications for the convergence debate.

2.4 Varieties-of-Capitalism Literature: Modifications and Implications

VoC has become one of the most influential perspectives in comparative political economy since its introduction to literature in 2001. A number of scholars from a wide range of disciplines utilized the basic principles of the stance to shed light to the contemporary problems of their related fields. In this part of our discussion, we will elaborate the studies that tried to enlarge the scope of the approach to be able to evaluate political economies of developing countries through the lenses of VoC stance. Besides their initial objective of expanding the scope, these studies have one major common characteristic. They do not directly oppose to the adequacy of the approach in principle. Implicitly or explicitly they all consider VoC stance as an adequate tool in the elaboration of developed political economies. While a number of them additionally stress the fact that what is adequate for developed nations is not adequate concerning their developing counterparts due to the distinguishing characteristics of the latter, others find it sufficient to directly apply the approach to the developing world. As expected, beyond these two common characteristics the focus and arguments of these studies differ substantially. The diversity results in different suggestions and implications concerning the convergence debate.

A number of scholars who follow the footsteps of VoC stance consider the initial configuration sufficient in the elaboration of developing world. Hence, they directly apply the perspective to these economies. Feldmann (2006) evaluates Estonia and Slovenia with a particular focus on their industrial relations and wage bargaining structures. As he argues, while the former one is a good example of a LME, the latter one is a good example of a CME. Although underlining the fact that the institutional infrastructures of these economies are still evolving and their stability will be determined during the course of time, he concludes that “it may not be necessary to invent new models of capitalism to analyze all the new economic institutions in transition economies” (Feldmann, 2006: 850). Buchen (2007) goes beyond Feldmann (2006) by focusing on the other four institutional dimensions that the initial perspective outlined. The findings support the previous

findings of Feldmann (2006) and conclude that Estonia can be regarded as a good example of a LME, and Slovenia can be regarded as a good example of a CME. Knell and Srholec (2007) applies the initial stance to post-communist economies by having utilized the methodology developed in Hall and Gingerich (2004). The writers identify Belarus, Ukraine, Slovenia, and Croatia as being the most coordinated ones, and Russia and Estonia as being the most liberal ones. McMnamin (2004) compares the political economies of Czech Republic, Hungary and Poland with nineteen OECD countries. The conclusion is that these economies are close to CMEs rather than liberal ones.

Molina and Rhodes (2007) share the idea that VoC approach can be fruitfully applied to the developing nations. The writers focus on the cases of Italy and Spain with a particular focus on wage-labor nexus and employment protection. However, instead of classifying these countries as a LME or a CME, they label them as 'mixed market economies' (MMEs). Their institutional infrastructures are composed of both market and non-market modes of coordination in a way that neither of them dominates. By having analyzed the unique characteristics of the two countries, Spain is said to converge to a LME presumably, while Italy is likely to resist that kind of convergence more persistently.

Klimplova (2007) utilizes the core principles of the initial VoC stance, this time to reach to contrary conclusions with the above cases. The approach is applied to the Czech economy and the author concludes that the results are not decisive as some scholars claim. Scholars who provide clear-cut suggestions are said to have a tendency to focus only on one institutional sphere and then jump to conclusions with a tenuous generalization. This narrow, one-sphere focus is criticized as institutional complementarity does not automatically imply functionality. Thereafter, a broader focus that encompasses all of the five spheres is called for. Having done that for the Czech economy, Klimplova (2007) argues that it is not clear "whether the Czech Republic is approaching a liberal or a coordinated market economy" (Klimplova, 2007: 70).

Having emphasized the insufficiency of the original formulation of VoC stance when applied to political economies other than the developed ones, a number of scholars proposed to search for additional distinct institutional frameworks that go beyond the initial bipolar variety. In broad terms, they focus on the roles of internationalization process, states, and transnational companies (TNCs) in developing countries to justify the increment in variety. Nölke and Vliegthart (2009) analyze the four countries of East Central Europe (ECE) by including the Czech Republic, Hungary, Poland, and the Slovak Republic. As the writers claim, direct application of VoC stance to ECE countries fails to conceptualize the most vital central characteristic of the region; that is its 'external dependency'. Consequently, the writers include TNCs to their analysis and elaborate the channels through which these economies are externally dependent. Then, they propose a third variety dubbed as a 'dependent market economy' (DME) that captures the specific institutional frameworks of these economies. DMEs are not simple mixtures of LMEs and CMEs. In other words, they are not hybrids. They have their own coherent institutional infrastructures; they can compete successfully in world markets; and they are stable. The writers question the possible categorization of other developing countries under the rubric of DMEs. Although they reflect that the unique heritage of transition hinders that kind of inquiry, if a comparison is to be made DMEs that are close to the pure one are expected to show better economic performances. Schneider (2009) applies the framework to Latin American countries. He first emphasizes the crucial roles of state and multinational corporations (MNCs), and then incorporates them to the heart of the analysis. Thereafter, he shows how non-market, hierarchical relations dominate and condition the strategic interactions of the actors, by relying on which he labels these economies as 'hierarchical market economies' (HMEs). Although HMEs seem like a mixture of the pure types as in some spheres they are close to LMEs and in others to CMEs; they are not hybrids. They have their own distinct institutional frameworks even if they might be inferior compared to the pure types due to their certain dysfunctional characteristics. As the writers propose HMEs can be a useful categorization concerning other developing parts

of the world such as some middle-income countries of South-East Asia, Turkey and South Africa. Bohle and Greskovits (2007) focus on Eastern Europe and apply the framework to a number of countries there¹³. One of the major arguments of the writers is that VoC stance is inadequate in the explanation of the emergence of institutions. The original version focuses on countries where there are already well-established institutional frameworks. All of the analysis and following generalizations are made relying on these actually-existing structures. Thereafter, in order to elaborate post-communist countries that eagerly struggle with institutional construction problem, one should go beyond the initial perspective. Priority should be given to external factors such as global commodity and financial markets, international institutions, and foreign direct investment. The nature and implications of these external factors should be analyzed with reference to state capabilities, as state becomes one of the most important actors in the institutional construction process. Through a number of quantitative analysis that reveal the significance of international influences and state capabilities, the writers propose four types of capitalism as ‘state-crafted neoliberalism’, ‘world-market driven neoliberalism’, ‘embedded neoliberalism’, and ‘neo-corporatism’. King (2007) also focuses on Central European countries; by including Hungary, Poland, and Russia. The modification of the initial perspective is called for in order to incorporate the demobilized nature of the working class and the region’s external dependency to the analysis. Then, two types of capitalism are proposed as ‘liberal dependent capitalism’ and ‘patrimonial capitalism’.

In consequence, one can categorize VoC literature in four broad groups. First, the ones that directly apply the initial perspective to the developing world and classify the countries at stake as a LME or a CME. These economies are expected to converge to its related pure type. Second, the ones that directly apply the initial perspective to the developing world but this time classify the countries at stake as a mixture of the pure types. Their convergence paths are uncertain. Third one is

¹³ Slovenia, the Baltic States, Estonia, Latvia, Lithuania, the Czech, Slovak Republic, Hungary, Poland as Central Eastern Europe (CEE) and Azerbaijan, Kazakhstan, Russia as Commonwealth of Independent States (CIS).

the scholars who directly apply the initial version of the stance to the developing world in order to show the very limitations of the initial perspective. Again, convergence is ambiguous. Last one is the scholars who propose to incorporate the distinguishing characteristics of the developing nations to the initial framework to be able to conceptualize the variety in that world. These scholars offer additional core types other than LME and CME which are generally stable. The implication is that no convergence is expected to the pure types.

It is noteworthy to emphasize that all of these studies consider VoC stance as an adequate tool in the elaboration of developed world. Then, some of them depart from this claim when developing countries are at stake. However, none of them *explicitly* and *insistently* focuses on innovation as a starting-point of analysis. Some of them elaborate the vital importance of foreign direct investment (FDI) and technological development as well as the role of governments in the implementation of proper policies for developing countries. Nonetheless, the main focus is never on innovation, the nature of innovation process is neither defined nor elaborated. Consequently, the convergence debate of hybrids is not discussed with a strong reference to the innovation process.

In the last chapter, one of our key propositions will be the claim that the initial focus of analysis should be on innovation for the elaboration of developing countries. That claim which is absent in the analysis of VoC stance is certainly there in NSI approach. As an approach which is seen as one of the more influential perspectives in comparative political economy literature by Hall and Soskice (2001), NSI approach puts innovation at the heart of the analysis and develops its core arguments accordingly. To be able to clarify our arguments more effectively in the last chapter, we will now pass to the examination of NSI approach and evaluate it in the same structure as we elaborated VoC stance.

CHAPTER 3

NATIONAL-SYSTEMS-OF-INNOVATION APPROACH REVISITED

In the previous chapter we exclusively focused on VoC stance. We outlined the research agenda of the perspective along with its building blocks and core arguments. Both the initial configuration in Hall and Soskice (2001) and the later modifications in VoC literature were elaborated with respect to these issues. Nevertheless, the discussion was carried out with a special emphasis on the convergence debate to which we aim to contribute in this study. As reflected throughout the chapter and pointed out in the concluding words, VoC approach never puts innovation at the heart of the analysis. Although the importance of innovation is recognized to some extent, the stance has neither examined it in a detailed fashion, nor has it taken innovation as a starting-point of analysis. Thus, the arguments concerning the convergence debate are not directly linked to the innovation process. In this chapter we will exclusively focus on NSI approach, a perspective that aims to accomplish the both. Having put innovation at the heart of the analysis, the approach aims to define innovation in an adequate fashion and proposes to take it as a common ground for further analysis. Throughout the chapter we will try to emphasize how this change in the initial focus reflects itself on the building blocks and core arguments of the perspective. More importantly, we are concerned with its implications for the convergence debate.

3.1 ‘Nation’, ‘System’, ‘Innovation’: The Emergence of an Epoch-Making Perspective

National systems of innovation (NSI) approach emerged in the late 1980s and early 1990s through the ground breaking works of Freeman (1987), Lundvall

(1992) and Nelson (1993)¹⁴. A number of distinguished studies contributed to the process (Dosi et al., 1988; Edquist, 1997). Over the past two decades, the approach has attracted much attention and spread rapidly not only within the confines of academic world, but also throughout the realm of policy makers and international organizations. Having been strongly influenced by its vision and resourceful past, several public agencies both in developed and developing world analyzed the perspective in depth and shaped their science and technology policies accordingly. One particular example is the Swedish Governmental Agency for Innovation Systems (VINNOVA). The organization was established in January 2001 and named directly after the approach. International organizations such as OECD and the European Union have intensely elaborated the perspective, absorbed its core arguments and reflected their policy suggestions in a number of theoretical and empirical studies (OECD, 1992, 1994, 1997).

From the very beginning, NSI approach emerged and evolved along two familiar lines which scholars sometimes label as Nelsonian and Lundvallian (or Aalborg version). The former, being more empirically oriented, aimed to analyze the characteristics of national systems of innovation with a strong focus on institutions, organizations and the linkages between them. The latter, being more theoretically oriented, aimed to conceptualize the nature of the interactive learning process that is believed to be the crucial building block of the so-called learning economy. As we shall try to explore in the following parts of the discussion, these different points of departure have actually made these views as perfect complements rather than the other way around. Thus, it is safe to state that they both shared the same motivations, agenda, and research questions in the first place, only with a differing level of attention paid to every one of them.

The main motivation of the NSI approach is to adequately elaborate innovation process and emphasize its vital importance for economic phenomena like international competitiveness, growth, and development. The stance defines

¹⁴ In published form, Freeman (1987) is the first study that applied the term ‘National System of Innovation’ (Edquist, 1997).

innovation in a broad manner and subscribes to the idea that innovation is a socially embedded process that has to be analyzed through an evolutionary perspective. It offers to go beyond linear models of innovation by definition, having analyzed various determinants of innovation that are not limited to the formal ones such as science and R&D. That dynamic process is strongly affected by nation-specific institutions that are systemic rather than separately dispersed. Thereafter, the approach adopts an inter-disciplinary standpoint and asks a variety of questions the answers of which lie at the intersection of economics, sociology, political science, history, geography and other related disciplines. What is innovation and what are its key characteristics? What role do institutions and organizations play in the innovation process? Through which channels is the process related to cognitive sciences? What are the similarities and differences between national systems of innovation and how do these differences reflect themselves on economic performance? Does globalization imply convergence to a single model or are there still persistently divergent characteristics of national systems of innovation? Although we will visit all these questions to some extent, the last one is especially important for the purpose of this study.

As any perspective should and naturally do, NSI approach extensively relies on prior literature. A wide range of studies and bodies of work are pointed out by the scholars depending on their own stance and the question at stake. According to Freeman (1995), the idea can be traced back to Friedrich List's now-classic work *The National System of Political Economy* (1841), title of which might very well be 'The National System of Innovation'. Beyond his well-known infant-industry argument, List is appreciated due to his insightful elaboration of the very core ideas of the contemporary NSI. He emphasized the necessity for and importance of a successful technology transfer for a laggard economy; elaborated the required link between formal institutions of science and education; underlined the significance of human capital as well as the user-producer interactive learning process; and the role of state throughout political economy. Although acknowledging his contributions to the debate, Lundvall et al. (2002: 215-6) does

not consider List as a direct intellectual ancestor as he is attributed that role only after the concept became popular. As the authors argue, the direct influence on the Aalborg version of NSI perspective came through Linder (1961). Andersen (1978, 1979) specified the common research agenda. Moreover, the authors proposed Adam Smith as an apparent starting-point in search of the intellectual precursors of the perspective. His *division of labor* encompassed knowledge creation concerning directly productive activities as well as the role of specialized scientists attached to them. In an attempt to elaborate the innovation systems of developing countries, Lundvall et al. (2009) associates the origins of NSI perspective to development economics (Rosenstein-Rodan, 1943). The basic aim is to provide policy suggestions to underdeveloped economies to launch successful catching-up. Having reminded the crucial role of institutional set-up in NSI analysis from the very beginning, Lundvall et al. (2006: 3) points out Johnson (1988, 1992) as the author of first inquiries that explicitly link economic literature on institutions to innovation systems. Edquist (1997) offers Rosenberg (1986) and Hippel (1988) as the ‘predecessors’ of NSI perspective who meritedly go beyond the narrow characterizations of linear models of innovation, to opt for a systemic approach. Godin (2007) digs into the earlier OECD reports to elaborate the influence of the organization on the pioneering works of NSI perspective. As he argues, the strong focus on a *system approach* present in the studies of OECD since 1960s has not only shaped the policies of the member countries but also the very perspectives of the scholars who launched NSI stance. In short, there are diverse views on the intellectual precursors of NSI approach. As a common characteristic, however, all these views explicitly or implicitly propose to focus on the innovation process in the first place and elaborate socio-economic phenomena in relation to it.

3.2 Varying Definitions, Common Building Blocks

The very first objective of any approach that aims to provide solid analysis is to provide clear definitions of its core concepts. As one scholar mentions, however, no two authors offered the same definition for ‘national systems of innovation’.

Although lack of a general definition causes certain problems in theorizing and leads to ambiguities in the comparison of actually similar studies, we think that this ‘problem’ turns out to be a blessing for NSI stance. Aimed to cover a huge research agenda with a wide range of related disciplines, scholars of NSI consciously or unconsciously focus on a certain aspect of the general picture; a natural outcome rather than a choice¹⁵. Unless clear definitions are presented in the ‘partial’ study, the lack of a general ever binding definition provides the required flexibility and researchers can more effectively elaborate the issue at hand. The pre-publication process of Edquist and Hommen (2008) particularly illustrates the point. Having focused on the political economies of ten small countries, the aim of the authors was to elaborate Asian and European national systems of innovation. In the project meetings the objectives were put as (1) to make the approach more ‘theory-like’ (2) operationalize it to conduct comparative studies and (3) draw policy conclusions. Thereafter, it was agreed that a common framework that could be applied to all case studies was needed. At this point, although some scholars preferred “very standardized, detailed and more rigid framework” others preferred “more degrees of freedom” (Edquist and Hommen, 2008: 2). At the last instance, utilization of the same concepts with a standardized structure of presentation was agreed upon with having kept the unique features of the NSI in question. There is always a desirable move towards the construction of more encompassing definitions and rigid frameworks. However, the very ambitious research agenda of NSI stance seems to undermine this intention. As Carter (2007) puts it “if we find, as well we might, that broad generalizations remain elusive...then, that, too, will be an important lesson” (Carter, 2007: 27-8).

In the presence of the above tension, NSI scholars defined the phrase ‘national system of innovation’ in two ways. While some of them focused on the term as a whole, others preferred to analyze ‘nation’, ‘system’, and ‘innovation’ separately. Concerning the former ones, a number of selected definitions are provided in

¹⁵ One might wonder how this general picture is defined in the first place as it is implied that there is none. It is beneficial to emphasize that NSI is a work-in-progress rather than an established theory. Thus, each contribution enlarges the boundaries of the general picture.

Table 1. All of the definitions reflect the core ideas of the perspective with a varying level of scope, but with an adherence to similar concepts. The two concepts that all scholars rely on to explain the core features of the stance are *institutions* and *organizations*. Institutions are generally defined as set of habits, norms, or rules that shape the behavior of agents. Being formal or informal, they both constrain and enable behavior. While a group of scholars use the terms interchangeably, some distinguish between the two. Following the footsteps of Douglass North, the latter group refers to the rules of the game by institutions (laws, rules, etc.) and the players of the game by organizations (universities, government agencies, firms, etc.)¹⁶. Although there are some differences in the utilization of these concepts in this respect, one inference is certain. NSI stance puts institutions at the heart of the analysis and it is an institutional approach to political economy. The other core arguments as such are the fundamental importance attributed to technology and knowledge; emphasis on nation as a unit of analysis; and elaboration of a NSI in a systemic manner. Each of these arguments constitutes one of the building blocks of NSI perspective and we will elaborate them with reference to the authors who focused on ‘nation’, ‘system’, and ‘innovation’ separately.

Table 1: Definitions for National Systems of Innovation

<p>“...The network of institutions in the public- and private-sectors whose activities and interactions initiate, import, modify and diffuse new technologies” (Freeman, 1987)</p> <p>“...The elements and relationships which interact in the production, diffusion, and use of new, and economically useful knowledge...and are either located within or rooted inside the borders of a nation state” (Lundvall, 1992)</p>
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¹⁶ Several arguments concerning the utilization of the terms *institutions* and *organizations* have already been put forward in the previous Chapter.

Table 1 (continued)

<p>“...The set of institutions whose interactions determine the innovative performance of national firms” (Nelson and Rosenberg, 1993)</p> <p>“...The national systems of innovation is constituted by the institutions and economic structures affecting the rate and direction of technological change in the society” (Edquist and Lundvall, 1993)</p> <p>“...A national system of innovation is the system of interacting private and public firms (either large or small), universities, and government agencies aiming at the production of science and technology within national borders. Interaction among these units may be technical, commercial, legal, social, and financial, in as much as the goal of the interaction is the development, protection, financing or regulation of new science and technology” (Niosi et al., 1993)</p> <p>“...The national institutions, their incentive structures and their competencies, that determine the rate and direction of technological learning (or the volume and composition of change generating activities, in a country” (Patel and Pavitt, 1994)</p> <p>“...That set of distinct institutions which jointly and individually contribute to the development and diffusion of new technologies and is a system of interconnected institutions to create, store and transfer the knowledge, skills and artifacts which define new technologies” (Metcalf, 1995)</p> <p>“...All important economic, social, political, organizational, institutional, and other factors that influence the development, diffusion and use of innovations” (Edquist, 1997)</p> <p>“...The national innovation system is an open, evolving and complex system that encompasses relationships within and between organizations, institutions, and socio-economic structures which determine the rate and direction of innovation and competence-building emanating from processes of science-based and experience-based learning” (Lundvall et al., 2009)</p>

Source: Up to Metcalfe (1995) the definitions are taken from Niosi (2002).

One of the building blocks of NSI stance is its focus on nation as a unit of analysis. First, national dimension enables one to elaborate the political and policy aspects of innovation. There are certain institutions which are determined exclusively at the national level that affect not only a part of the political economy but whole. One such example is the structure of education and training systems. On the one hand, general education level of labor force determines the limits of growth in all areas. On the other hand, structure of education system not only determines the characteristics of labor market, but also affects and conditions the characteristics of other related fields such as corporate governance schemes. The systematic elaboration of institutions and organizations require a degree of compatibility between various political realms, which reinforces the initial emphasis on nation. Second, assuming that nation inherits a non-negligible degree of cultural homogeneity in addition to its political centralization, it has a direct affect on the innovation and learning processes via production and utilization of tacit knowledge (Lundvall, 1992). Unlike codified knowledge, tacit knowledge can only be gained by experience-based learning; mostly through master-apprentice relationship. This kind of relationship requires shared norms and understandings between individuals in the first place so as to enable successful communication. This ‘common ground’ is established foremost at the national level and enables individuals to construct ‘culturally based system of interpretation’ (Lundvall, 1992). That’s one of the main reasons why Gertler (2003) offers ‘institutional proximity’ defined as the “shared norms, conventions, values, expectations, and routines arising from commonly experienced frameworks of institutions” as the most relevant proximity in the production and diffusion of tacit knowledge (Gertler, 2003: 91). Third, although regionalization and globalization may undermine the initial focus on nation as a unit of analysis, it is still beneficial to focus on nation in the first place so as to reduce the possible ‘cost of transition’ if that kind of a convergence was to take place (Lundvall, 1992). It is wise to learn from past and present experiences to obtain knowledge concerning the dynamics of the current system in order to shed light to the continuous changes and transformations of national systems and global economy.

Fourth, we may add that the initial focus on nation as a unit of analysis is especially important in the evaluation of developing countries. As we will examine in the next chapter, the main problem of these economies is system construction. In that process the main actor of adjustment is governments.

Although recommending nation as a logical and beneficial unit of analysis, NSI scholars, without any exception, also propose to go beyond that initial emphasis. First, the variety within national systems is appreciated via two ways. On the one hand, the existence of some clusters that show a systemic character in their own right is acknowledged. There are certain regions within a political economy that are clearly distinguishable from the rest, partly due to their unique structures and partly due to the differing institutional frameworks they face. Thus, these clusters require further elaboration and the analysis of regional systems of innovation are brought to the fore at this respect (Asheim, 2000; Saxenian, 1994). On the other hand, it is clear that not all sectors within a political economy are influenced by the same institutions. Moreover, even if they are influenced by the same institutions, that happens at a substantially differing degree. Consequently, a more detailed focus on a specific sector may be a necessity. Second, having undermined the unique characteristics of political economies, globalization may cause convergence to a ‘best practice’ in certain aspects. For instance, the demands and pressures of short-term oriented foreign investors may alter the long-term oriented structure of a financial system¹⁷. Then, labor market structure may also change in line with the requirements of the new corporate governance scheme. Consequently, the initial focus on nation may lose its validity during the process. Another facet of globalization that undermines nation as a unit of analysis is the increasing role of transnational companies (TNCs). If TNCs mostly shape rather than being shaped by national systems, it is more adequate to talk about ‘international systems of innovation’ rather than national ones. Thus, the structure and dynamics of TNCs require further elaboration.

¹⁷ For the German case see Höpner (2005).

In consequence, being aware of the above limitations of nation as a unit of analysis, NSI scholars see different levels of aggregations as complements rather than as substitutes. Although emphasis on national systems is especially important, that focus should be complemented by local, sectoral, industrial, regional and international studies. In fact, most of the time, it is the initial inquiry of the researcher that determines the relevant degree of aggregation.

Another building block of NSI approach is that it puts innovation at the heart of the analysis as innovation is seen as the foremost driving force of a political economy. All important issues concerning growth and development evolve around innovation, as the ultimate aim is to foster innovation which in turn will enable successful rates of long-term economic performance. This core argument is valid for both Nelsonian and Lundvallian versions. The former version seeks to explain the relative success of national systems with respect to their technological infrastructures. That infrastructure is constituted by institutions, organizations, as well as the linkages between them. A solid infrastructure in this respect enables firms of a nation to generate successful innovation which in turn results in sustained international competitiveness and growth. As Nelson (1993: 3) puts it there is a 'new spirit' in the air labeled as 'technonationalism', which implies that international competitiveness stems from a nation's firms' technological capabilities. Freeman (2004) supports this claim empirically. It shows why international competitiveness cannot be explained with reference to wage rates, prices, and currency rates as some subfields of mainstream economics argue; and, how it can be explained with reference to technological infrastructures of national political economies. Lundvallian version proposes a theoretical framework that emphasizes the ever increasing roles of knowledge and interactive learning throughout political economies and relates these two concepts to innovation process (Lundvall, 1992; 1998; Lundvall and Johnson, 1994). Having argued that knowledge is the most fundamental resource for a political economy and that knowledge is generated by engaging in an interactive learning process, innovation is defined as a 'ubiquitous' phenomenon that is shaped by *structure of production*

and *institutional setup*. *Structure of production* partly conditions the direction of innovation via experience and knowledge derived from routine activities. It emphasizes the crucial importance of such activities which cannot be captured with a narrow focus on scientific activity and R&D. Thus, beyond formal institutions that support innovation, “if innovation reflects learning, and if learning partially emanates from routine activities, innovation must be *rooted in the prevailing economic structure*” (Lundvall, 1992: 10)¹⁸. *Institutional setup* eliminates the level of uncertainty in political economy to some extent and provides stability over time. Relying on that stability, actors shape their behavior and engage in various relationships. One example of such institutions is routines specifying the everyday engagements of labor force.

As the label suggests, NSI is a systemic approach to political economy and this is one of the building blocks of the perspective. It does not focus on only one type of institution *ceteris paribus*, but evaluates the economy as a whole. Although ‘systemic aspects’ of innovation have always been important during the course of time, they have further become crucial in the last four-five decades due to the rapid diffusion of information technology, bio-technology, and new materials technology throughout the world economy (Freeman, 1995: 11). Consequently, a narrow focus on one institutional sphere in isolation has increasingly become inadequate. For Lundvall (1992), a national system of innovation “is constituted by elements and relationships which interact in the production, diffusion and use of new, and economically useful knowledge...either located within or rooted inside the borders of a nation state” (Lundvall, 1992: 2). Subscribing to the terminology of Boulding (1985), a national system of innovation is attributed a *social* and a *dynamic* character. It is social in the sense that the main focus is on learning which is socially embedded. It is dynamic in the sense that there are certain feed-back mechanisms. While an innovation system can be highly effective due to virtuous cycles, it can also be highly ineffective due to vicious

¹⁸ A similar line of proposition is put forward by Regulation School.

cycles¹⁹. Lundvall et al. (2006) goes on to suggest that some scholars focus too much on prevailing institutional frameworks and disregard the importance of qualitative changes over time. These scholars implicitly conceptualize system as a “stationary self-reproducing set of elements with interrelationships” and perform empirical analysis as if there were no qualitative changes over time (Lundvall et al., 2006: 3). That kind of an elaboration undermines the element of ‘change’ in institutional analysis. In order to avoid that, one should define ‘system’ properly. Edquist (1997) broadly defines system as “including all important determinants of innovation” (Edquist, 1997: 15). The wide and flexible agenda of the approach necessitates a flexible definition for the term in return. As the writer argues, a system is neither built relying on only conscious efforts; nor is it only emerged due to unconscious behavior. Conscious efforts and unconscious processes all play their parts in the construction of a system. Edquist and Chaminade (2006) offer to further elaborate systems of innovation perspective in the light of ‘general systems theory’. A proper definition of a system is said to inherit three common characteristics. First, a system is not only composed of components, but also the interactions among them. Second, it has a function aimed towards a certain objective. Third, it is distinguishable from the rest of the world due to its unique characteristics. Relying on these arguments, one major proposition of the writers is that “making the SI approach more theory-like does not require specifying all components and all relations among them” as “this would be too ambitious and too unrealistic” (Edquist and Chaminade, 2006: 111); a rather flexible statement that is perfectly compatible with the large-scale focus of the perspective. As we will elaborate in the next chapter, that kind of an inquiry has important implications for the convergence debate.

As an another building block, the main focus of NSI perspective is on firms although it would be unfair to dub the approach as ‘firm-centric’ as in the case of VoC stance. As we discussed, VoC perspective considers firms as the main agents

¹⁹ The same argument is developed having relied on the institutional complementarities concept in VoC stance.

of adjustment reflecting change, especially in the era of economic openness. Then, it categorizes national political economies with reference to the ways firms solve their coordination problems. First, NSI approach explicitly identifies why firms might reflect ‘change’ more than the other actors in political economy besides the impact of economic openness. As Nelson (1993) claims, after a technology is launched to a certain field, additional knowledge should be generated concerning its possible development paths to be able to secure satisfying economic returns. That kind of knowledge generally lies in firms as they can generate and exploit tacit knowledge through long periods of implementation and practice²⁰. Moreover, firms are able to integrate a wide range of activities within their structures such as R&D, production, and marketing. Thus, they have a higher chance to profit from innovation. In line with the above propositions, Jensen et al. (2007) claims “regardless of the extent to which [science or scientific like knowledge] is ultimately codified, [tacit knowledge] is acquired for the most part on the job as employees face on-going changes that confront them with new problems” (Jensen, 2007: 683)²¹. Second, in contrast to VoC stance NSI approach does not classify national political economies with a direct reference to firm behavior. Other actors in a political economy, especially governments, are also elaborated by attributing them an active role besides their relations to the coordination problems of firms. In short, although a special role is attributed to firms that emphasis does not result in a firm-centered approach as in the case of VoC stance.

Having elaborated the building blocks and core arguments of NSI approach, we will now pass to the convergence debate. Our aim will be to examine the implications of the building blocks of this perspective on convergence.

3.3 National-Systems-of-Innovation Literature: Implications for Convergence

As in VoC stance, there are two ways to discuss convergence from the perspective of NSI approach. First one is the same. Mainstream economics defines a ‘best

²⁰ Although Nelson (1993) does not explicitly utilize the term tacit knowledge, he certainly refers to it.

²¹ Again the writers do not explicitly use the term tacit knowledge, but they imply it.

practice' to which all political economies tend to converge as (1) it is only 'natural' to converge there (2) it represents the only way to achieve successful rates of economic performance (3) both of them are valid. That claim can be evaluated from the perspective of NSI stance. However, the second one differs. As we discussed, VoC approach proposes two pure types of political economy and classifies all other economies as hybrids. Then, having discussed convergence *between* pure types, one of which (LMEs) characterizes the 'best practice' of mainstream, it focuses on the fate of hybrids and discusses the convergence *to* pure types. As our elaboration of NSI approach has revealed so far, no pure types are defined by the perspective. Consequently, no hybrids are defined either. Therefore, instead of discussing convergence *to* pure types which is not possible by definition, one can discuss why no pure type is defined in the first place, as well as its implications for the convergence debate.

In terms of the first line of discussion, NSI approach does not consider market system as a natural outcome of human behavior, but sees it as a special kind of institution that emerged and evolved during the course of time. Rather than natural tendencies, specific historical and cultural circumstances led to its existence. Thus, it is not wise to elaborate all political economies from the lens of that particular framework by neglecting its spatial and temporal boundaries. In addition, market system is not the only institutional framework that provides satisfactory levels of long-term economic performance. On the contrary, it has certain limitations in terms of knowledge and innovation as knowledge is not an ordinary commodity and innovation is not a static, equilibrium-oriented process. In consequence, unique historical and cultural configurations can lead to the emergence and development of distinguished institutional frameworks that perform better than the market system. The rise of Japan in 1970s particularly exemplifies the point.

The second line of discussion centers on the question of why no pure type is defined in the first instance. The answer lies in the conceptualization of optimality and efficiency. Innovation, by definition, is a process that entails high levels of

uncertainty. First, it is not apparent if the initial attempt will pay off. There is a possibility that large sums of investment will result in vain. Second, and more importantly, even if it pays off, it is not apparent if the initial target will be reached as it is planned in the first instance. During the process some variants of the initial inquiry may prove to be the more promising ones, resulting in a shift in the initial inquiry, followed by a shift in the expected results. Thus, the path-dependent characteristic of innovation by no means implies advancement in a static, foretold path. Although innovation is initiated by conscious efforts in the expectation of certain results, the ‘randomness’ element of the process may significantly alter the seemingly ‘certain’ results. As a consequence, we can never know for sure if “the potentially optimal path is being taken” and even if we have some ideas and anticipations concerning the development trajectory of an innovation process, the identification of “an ideal or optimal system of innovation [to make] comparisons between an existing system and an optimal system are not possible” (Edquist and Chaminade, 2006: 115). Probably to avoid any misunderstandings, whenever NSI scholars utilize concepts that might imply convergence to an ideal system such as ‘ideal types’ or ‘transition’, they explicitly define these terms. For instance, Lundvall et al. (2006) give their book a headline *Asia’s Innovation Systems in Transition*. At first glance, the heading may imply that the innovation systems of Asia are converging to a particular ideal type. However, the writers explicitly define *transition* as a “process where one constellation of institutions is turning into a different constellation of institutions” and as a *radical institutional change*, having opposed the idea that “Asian systems are to be seen as ‘models’ that can be used as benchmarks for copying by other developing countries” as “[these countries] are moving targets and what will determine their future performance is not so much their current characteristics, it is rather their capability to make the transition to a new state” (Lundvall et al., 2006: 1-2-4). Nelson (1993) exemplifies the point with reference to the Japanese and American experiences. At the beginning of the 20th century, one major agenda of Japan was to emulate the advanced systems of the US. And the US emulated Germany during its catching-up process. Both of these cases reflected

the fact that emulation did not result in a direct copying mechanism. After a certain period of time, emulated characteristics gained a uniqueness relying on the distinguishing frameworks of the emulating country.

The lack of the notion of optimality in NSI analysis has direct implications on the conceptualization of efficiency. As there is no optimal model relying on which efficiency of a particular system can be judged, how can one integrate such considerations to the analysis? It is true that unique historical and cultural characteristics of a particular nation strongly influence its contemporary institutional framework. And those characteristics entail several considerations other than efficiency. However, it would be a mistake to completely erase efficiency concerns from the picture as “history matters does not . . . imply that only history matters. Intentionality and economizing explain a lot of what is going out there” (Williamson, 1978: 50). As always it is, a balance should be sustained between the two extreme cases.

NSI stance integrates efficiency notion to the analysis after having carried out a number of comparative studies. These studies can be classified under three main groups. First, a number of efforts are devoted to the elaboration of a single national political economy. The distinguishing characteristics of that particular economy are deeply evaluated in relation to its system of innovation. Then, its performance is judged with reference to the performances of other political economies. Secondly, case studies are collected in a volume so as to increase the meaning and validity of the individual inquiries. To enhance integrity and comparability, countries are grouped with reference to their clustering properties such as income levels, populations, or other basic science and technology indicators (Nelson, 1993; Edquist and Hommen, 2008; Albuquerque, 1999). Thirdly, more theoretically-oriented studies offered general concepts to explain why certain political economies are more successful than others in terms of innovation (Oyelaran-Oyeyinka, 2006; Jensen et al., 2007).

In consequence, NSI perspective does not judge the efficiency of a particular system with reference to an abstract, ideal model. Having performed a significant number of comparative studies, NSI scholars try to reveal which factors or institutions are the more crucial ones in the making of a successful innovation process. Of course there is a certain theoretical background on which all of these studies rely. Lundvallian version is especially important in this respect as we evaluated. However, the boundaries are necessarily flexible in order to avoid the pitfalls of any deterministic analysis based on efficiency concerns. Niosi (2002) skillfully elaborates the way that NSI analysis integrates efficiency considerations to the analysis. As the writer argues, NSIs are ‘x-efficient’ in the sense that they do not maximize but satisfy, generally below any optimal level of efficiency. ‘X-inefficiency’ is defined as the “gap between observed performance and existing best performance (maximum output observed in equivalent organizations)” as “it is not the gap between observed performance and any optimal, theoretically determined performance” (Niosi, 2002: 293). Following, ‘x-effectiveness’ is defined as the “degree at which institutions attain their organizational missions” examples of which are “university producing human capital (graduates); producing basic scientific knowledge; transferring that knowledge to society. Government laboratories: conducting applied R&D; transferring that knowledge to society” (Niosi, 2002: 293). Then, he goes on to state one of the major propositions of the perspective as “efficiency and effectiveness have to be seized not by exercises of Euclidean geometry but, as in biology and management science, through careful empirical analysis and comparison of institutions with similar missions or ‘benchmarking’” (Niosi, 2002: 296)²².

3.4 Expansion of the Scope: Developing Countries

After the emergence of NSI approach in the late 1980s and early 1990s, a number of scholars began to apply the perspective to developing countries. The stance is seen to bring fresh air to development studies as it has become more and more

²² ‘Benchmarking’ is defined as the “systemic observation of organizational routines and the comparison of performance with superior units at the levels of resource use and efficiency and effectiveness (inputs and outputs)” (Niosi, 2002: 296).

apparent that mainstream prescriptions were not the ones that developing countries were desperately looking for. Having put knowledge and innovation at the heart of the analysis and subscribing to the idea that nation still matters in the so-called globalization era, NSI scholars have tried to provide concrete policy suggestions to developing countries in order to actualize successful catching-up. As we have mentioned, however, contrary to VoC perspective, no pure type is defined in NSI approach. The very nature of innovation process and arguments of evolutionary theories undermine the validity of any abstract model that is solely built upon efficiency considerations. Thus, with reference to the building blocks of the perspective, NSI scholars judge the characteristics and performances of a developing country in relation to its developed or other developing counterparts. As we will elaborate in a minute, both qualitative and quantitative analysis have been utilized so as to examine the distinguishing systems of developing countries as well as their revealed performances in relation to other political economies.

What we deduce from the literature is there are three main characteristics that distinguish innovation systems of developing countries from their developed counterparts. First, institutions of developing countries are x-inefficient and x-ineffective if we are to subscribe to the terminology of Niosi (2002). Secondly, institutions of developing countries are weakly coordinated. As we have mentioned, effectiveness of a single institution does not offer much as there is a need for a strong coordination between various institutions such as governments, universities and firms. Thirdly, developing countries do not or cannot pay the required attention to science and technology related issues. Most of these countries could not even complete their industrialization process yet and there is a serious infrastructure problem straight off the bat. Thus, before even focusing on the requirements of the contemporary 'information age', these countries have to deal with their unachieved industrialization process²³. Moreover, in order to

²³ The third report of the Turkey's Supreme Council for Science and Technology published in 1997 describes this situation as a 'dual problem'. Turkish economy has to deal with its historically underdeveloped industrialization process on the one hand, and its insufficient capacities in S&T on

manage the two said processes governments need to implement complementary policies in different realms. However, that complementarity is seriously lacked in developing economies²⁴. Having emphasized the distinguished characteristics of the developing countries in the above manner, NSI scholars applied the perspective to these countries in the following way.

Nelson (1993) is the first study that aims to expand the initial focus of the perspective on developed economies. Having adopted an empirically-oriented methodology, the objective is set as to “describe . . . compare . . . and try to understand the similarities and differences across countries in their innovation systems” (Nelson, 1993: 505). Besides its other contributions, empirical evidence is said to be vital in the determination of factors that play the most crucial roles in innovation process and in the construction of a valid theoretical framework²⁵. With reference to their size and income level, developing countries are elaborated in three main groups as ‘high-income industrial nations’, ‘small high-income countries’, and ‘low-income countries’. Edquist and Hommen (2008) try to go beyond Nelson (1993) in several ways. Having simultaneously been influenced by the Nelsonian and Lundvallian versions of the stance, the writers aim to provide a more theoretically-oriented framework. On the one hand, each of the case studies is performed with reference to a commonly determined general outline referred as ‘activities framework’. On the other hand, the large sample of Nelson (1993) is reduced to cover only small high-income Asian economies in order to increase

the other hand. These two processes have to be handled hand in hand if the aim is to catch-up developed economies.

²⁴ As a part of the seventh five-year development plan which was designed to capture the period 1996-2000, an explicit chapter entitled Development Project in Science and Technology was devoted to elaborate S&T policies of Turkey. That was the first time that S&T policies were explicitly discussed in a document at the highest level. In that chapter, one of the causes of the unsatisfactory levels of development in S&T was attributed to the lack of coordination in different policy realms. Consequently, previously determined targets could not be reached such as GERD as a percentage of GDP or R&D Human Resources per 10,000 Total Employment.

²⁵ That point is especially crucial for NSI studies. As a number of scholars besides Nelson (1993) explicitly mentioned, we still do not know which institutions or organizations play the most vital roles in innovation process putting aside the most obvious ones such as high quality education. For instance, Edquist (1997) proposes to define innovation by including all important determinants of it having acknowledged that kind of an imperfect knowledge.

comparability. Although at the end “none of the case studies arrives at a ‘complete’ causal explanation of the propensity to innovate in their respective NSI” but “present [a] structured and illuminating discussions of the factors that influence the propensity”; the book is the “first comparative study of NSI that has focused on ‘activities’ in a systemic manner” (Edquist and Hommen, 2008: 11-16). Having adopted a more flexible methodology than Edquist and Hommen (2008), Lundvall et al. (2006) also focuses on the innovation systems of Asian countries. The particular focus of the collection is on transition defined as a “process where one constellation of institutions is turning into a different constellation of institutions” (Lundvall et al., 2006: 1). The contemporary problems of the Asian innovation systems are elaborated with reference to both external and internal pressures. Globalization and new forms of competition in world markets is one of these external pressures. As of internal ones, one example is the required focus on regional systems of innovation to enhance knowledge-based production.

There are a number of case studies that aim to elaborate innovation systems of developing countries besides these above. Dispersed over a wide geography, some of these studies focus on Latin American countries (Arocena and Sutz, 2000), some of them elaborate Asian countries (Intarakumnerd, 2002), and some examine East European countries. Some studies prefer to define their field of interest broadly such as non-OECD countries, developing countries, or transition economies. Some of these studies classify innovation systems under different groups. To exemplify, Oyelaran-Oyeyinka (2006) defines ‘advanced’ systems of innovation (ASI) and two types of ‘system of learning innovation in development’ (SLID) to (1) compare and contrast NSIs of developed and developing countries and (2) to propose policy suggestions to the latter ones. Albuquerque (1999) proposes to categorize non-OECD countries under three main groups as ‘mature’ NSIs, ‘catching-up’ NSIs, and ‘non-mature’ NSIs. He argues that it is possible to categorize non-OECD countries in that manner with reference to their science and technology statistics. It is beneficial to note once more that none of these studies

implicitly or explicitly propose convergence to a pre-determined institutional framework. They simply put forward the weaknesses of innovation systems of developing countries which become more obvious when compared to their developed counterparts. Then, policy suggestions are being formulated for the developing world to get rid of those specified weaknesses.

3.5 Concluding Remarks

In this chapter we exclusively focused on NSI approach. We outlined its building blocks and core suggestions in relation to the convergence debate. It is our contention that the innovation-oriented standpoint of NSI approach makes it a more adequate perspective to political economy when compared to VoC stance, especially when the focus is on developing countries. That contention will be explained in the next chapter. At this point, one might question our initial focus on NSI approach in the very first instance. As there are other approaches that put innovation at heart of the analysis as well²⁶. After revisiting NSI stance, we may now explain the reasons of our initial inquiry. There are two main reasons why we particularly focused on NSI approach among other possible alternatives. First, VoC stance itself appreciates NSI approach as being one of the most influential perspectives in comparative political economy and aims to go beyond it in several aspects. In the next chapter we will evaluate if VoC stance has accomplished its objective. Second, and more importantly, we appreciate NSI approach for its adequate elaboration of the innovation process and its salient arguments concerning the convergence debate. Its flexible standpoint that goes beyond the narrow focus on efficiency considerations serves well to the purpose of this study. Now, it is up to the next chapter to harness the arguments that are presented in the previous chapters to provide a new perspective on the convergence debate.

²⁶ One such example is the linear model of innovation (Godin, 2006).

CHAPTER 4

A NEW PERSPECTIVE ON THE CONVERGENCE DEBATE

4.1 ‘Innovation’ as a Starting-Point of Analysis

Any framework that aims to undertake fruitful elaboration has to state its starting-point of analysis clearly. As always, each and every inquiry actually corresponds to a prior research question that is in mind and what determines the *actualization path* of that research question is the initial starting-point of analysis. That *actualization path*, in turn, shapes the core arguments and building blocks of the framework that is of concern.

As put forward in Chapter 2, the foremost objective of VoC stance is to construct a theoretical framework so as to investigate, differentiate, and categorize national political economies in a systematic manner. While the exclusive focus is on the developed economies of OECD in Hall and Soskice (2001) that focus shifts to their developing counterparts in the VoC literature. However, the initial research question stays the same and reflects the initial objectives of the perspective: How can we build a solid analytical devise to elaborate the variation among national political economies systematically? In an attempt to construct such a framework, VoC stance proposes to take *coordination problems of firms* as a starting-point of analysis²⁷. Having subscribed to a relational view of the firm, all actors in a political economy are attributed a degree of significance in relation to their connections with those coordination problems. The analysis began *only after* that connection is detected in the first instance. After Hall and Soskice (2001) the emphasis on that initial starting-point of analysis has decreased. VoC literature

²⁷ As a reminder, these coordination problems are classified under five main categories as industrial relations, vocational training and education, corporate governance, inter-firm relations, and relations with own employees. For a detailed elaboration of these classifications see Chapter 2.

has undermined the role that firms play in a developing political economy by having shown the significance of governments and TNCs for these economies. In most of the cases, however, the focus on firms and their coordination problems are kept. In other words, the distinct characteristics of the developing world are appreciated to some extent, after *having kept* the initial focus that is outlined in Hall and Soskice (2001).

Like VoC stance, NSI approach also aims to analyze and conceptualize the variation among national political economies. While in the initial stages of the approach the focus has solely been on the developed world, that focus has been expanded to developing countries during the course of time. In this respect, NSI approach shares the same objectives and development trajectory with VoC stance. However, its starting-point of analysis differs from VoC framework as we examined in the previous chapter. Instead of taking the *coordination problems of firms* as a differentiating dimension, NSI approach proposes to distinguish national political economies with reference to their innovation systems. It invites us to focus on the *innovation process* relying on which the characteristics of a national political economy are determined. Despite their varying points of departure, both the Nelsonian and Lundvallian versions of the stance take *innovation* as a starting-point of analysis.

In the consequent parts of Chapter 2 and Chapter 3 we elaborated how this difference in the starting-point of analysis has reflected itself on the core arguments of VoC stance and NSI approach respectively. More importantly, we are concerned with how it impacts upon the convergence debate *via* these core arguments. In the subsequent parts of this chapter we will revisit those reflections. For now, it should be apparent that the initial point of departure is vital in the determination of the *actualization path* of any framework. Thus, in order to undertake a beneficial elaboration of national political economies one should first decide on an *adequate* starting-point of analysis.

If we are to agree on the above suggestions, we may continue our discussion by putting forward the initial objective of this study as well as its starting-point of analysis. The primary aim of this work is to provide a new perspective on the convergence debate as it is discussed in VoC literature. As examined, there are two ways to discuss convergence from the perspective of VoC approach. First is the convergence *between* pure types. Second is the convergence *to* pure types. In this study we mainly focus on the second line of the discussion and discuss the convergence of hybrids *to* pure types. In other words, we question the fate and prospects of developing countries. As it is apparent, our inquiry has a more specified focus when compared to VoC stance and NSI approach.

Following one of the main propositions of NSI approach, it is our contention that ‘innovation’ is *the* adequate starting-point of analysis in the elaboration of developing political economies²⁸. To begin with, as NSI literature outlines, it is not the short-term oriented macroeconomic policies that enable successful rates of long-term economic performance, but it is the strong national systems of innovation that enables it (Freeman, 2004). What matters in the long-run is the quality of institutions, organizations, and the linkages between them that foster the interactive learning process throughout a political economy, rather than the unstable benefits of short-term oriented policies. However, this is not to say that macroeconomic policies are completely useless as well as external factors that are not entirely dependent on a single national political economy. For instance, as Stiglitz and Charlton (2005) underline, the structure and direction of international trade have important implications and affects on the growth potentials of developing countries. Independent from the domestic efforts of these countries, the structure of international trade itself influences the fate of developing countries significantly. We agree on that point. However, in line with NSI literature, we argue that all of the efforts that are made to accommodate unfavorable external factors to strengthen domestic capabilities are to be

²⁸ NSI approach proposes the same argument also for the elaboration of developed political economies. In this study, we try to emphasize the validity of the argument when developing countries are at stake.

undertaken with reference to their implications and consequences on the national system of innovation. In short, the primary concern has to be on the advancement of the innovation process and all other issues have to be judged and ranked with respect to it.

Another important point relying on which we suggest ‘innovation’ as a starting-point of analysis is that developing countries do not have a *system* to begin with. Contrary to their developed counterparts, developing countries not only lack the quality institutions and organizations that foster the innovation process but they also lack the required linkages between them. We would not make an exaggeration if we say that each and every study that elaborates the characteristics of a developing country refers to the inferiority of those linkages. In consequence, as a line of the VoC literature and the critiques of NSI perspective emphasize the main problem of developing countries is *system construction* which is an entirely different phenomena (Bohle and Greskovitz, 2007; Arocena and Sutz, 2000). In line with our first argument, we argue that a prior focus on ‘innovation’ is needed in the process of *system construction*.

The above proposition will become more meaningful if we are to revisit the initial starting-point of analysis in VoC stance. As developed political economies already have a coherent institutional framework, in the sense that they are capable of satisfying the core requirements of a strong national system of innovation, VoC approach can implicitly treat ‘innovation’ as if it were a *mere consequence*. In the background, the focus on the coordination problems of firms and all of those institutional complementarities and institutional comparative advantages actually foster a successful innovation process. In other words, if we were to turn the tide in VoC analysis and focus on the innovation process at the very first instance, nothing might change. Thus, VoC stance seems to implicitly satisfy our proposition in terms of the adequate starting-point of analysis in the elaboration of developed political economies. However, the same methodology will certainly not work in the elaboration of developing countries. Those political economies do not have a system to begin with like their developed counterparts which require an

exclusive focus on ‘innovation’ in the very first instance. A prior emphasis on the coordination problems of firms might not lead us to the required focus on innovation when developing countries are at stake.

If we are to agree on the proposition that ‘innovation’ is an adequate starting-point of analysis in the elaboration of developing countries, one question that remains to be answered is how should we define innovation? We have already revealed that we consider NSI approach as the most appropriate perspective in the conceptualization of the innovation process. This is especially the case if we are to focus on the Lundvallian version of the perspective which aims to delve further into the theoretical foundations of the innovation process by having elaborated the unique characteristics of knowledge and the interactive learning process. Thus, we comply with the general definitions that are given in the previous chapter. However, we would like to add a new dimension to those definitions as our exclusive focus is on developing countries here. As Nelson (1993) underlines, one should adopt a broad definition of innovation and interpret the term so as to “encompass the processes by which firms master and get into practice product designs and manufacturing processes that are *new to them*, if not *to the universe* or even *to the nation*” (Nelson, 1993:4, emphasis added). If we are to integrate the organizational dimensions of the innovation process to this definition following Edquist (1997), we would end up with a very adequate proposition. Otherwise, the limited capacities of the developing world, with a few exceptions, are apparent in terms of producing new-to-the-world technologies. If we are to describe innovation in a strict way by having disregarded the flexibilities of the above definition, as one scholar mentions, we would end up with an illusory conclusion that nothing ever happens in developing countries. As a consequence, that point of departure would incorrectly lead us to nowhere.

To sum-up, in this sub-section we tried to justify our starting-point of analysis in the elaboration of developing countries. As we argue, in line with NSI literature, the adequate point of departure is the innovation process. All other issues that are important in the workings of a national political economy have to be addressed in

relation to their impacts and consequences on that process. In the following subsections, we will examine the reflections of our point of departure on our position concerning the convergence debate.

4.2 Innovation and Government: Intervention

One major consequence of our subscription to the innovation process as a starting-point of analysis is that it justifies government intervention to a certain extent. This is true both for the developed and developing world. However, from our standpoint the role that governments assume in the latter case is much more significant due to the distinguishing characteristics of developing countries.

The first phenomenon that justifies government intervention is the very nature of the innovation process itself. That's why a large part of NSI literature foresees government interference to political economy in one way or another. At the outset, the process entails high levels of risks due to the existence of indeterminable uncertainty²⁹. In contemporary world, large sums of financial resources are to be devoted to undertake a successful innovation process, yet in most cases the attempts go in vain. In addition to that as the duration of the process is also unknown to the innovator beforehand, the pre-calculated costs of the process might very well be surpassed due to that uncertainty. In other words, the opportunity cost of the innovation process is quite high both in terms of financial resources and time. It is a blessing for the firms and other private organizations of the developed world that they can deal with this problem without the direct assistance of their governments. If our attention is exclusively on TNCs, some even say that they *by no means* require that support. The reason is that these organizations already have sufficient capabilities to perform a successful innovation process thanks to their strong organizational infrastructures developed in a historical context in their countries of origin and to their easy access to the required inputs. However, the organizations of the developing world are faced

²⁹ The term 'uncertainty' actually inherits the meaning that we attributed to it with 'indeterminable'. As unlike 'risks' or any other variants of the term, 'uncertainty' cannot be calculated by definition.

with a very different scenario. Neither do they own sufficient capabilities to perform a successful innovation process, nor have they the required connections to access to the inputs. In this respect, what will compensate for the weaknesses of the firms and other private actors in a developing political economy is government intervention. We will amplify that point in a minute by relating it to *system construction*.

Another implication of the nature of the innovation process is that “when it comes to knowledge [consequently innovation] market failure is the rule rather than the exception” (Lundvall, 1992:1 in a footnote). Knowledge is not an ordinary commodity that can be effectively exchanged in the market system due to its unique characteristics. Among such characteristics is its tacit dimension which specifically undermines clear-cut technology transfer *via* a pure reliance on the market mechanism³⁰. However, this is not to say that markets do not play a significant role in the undertaking of a successful innovation process. On the contrary, they do play that kind of a role. The point is that government intervention is inevitably needed due to the specific characteristics of the innovation process to (1) correct market failures and (2) give direction to the innovative activity³¹. Market creation and public innovation procurement are two such examples of government intervention (Edquist and Chaminade, 2006).

The second phenomenon that specifically justifies government intervention in the developing economies stems from the fact that contrary to their developed counterparts, these economies do not inherit a system to begin with. As mentioned earlier, a line of the VoC literature and some critiques of NSI approach insistently emphasize that point. As they argue, the main problem of developing countries turns out to be *system construction*, a process in which governments play the most crucial role. We agree with this general argument. However, by having narrowed

³⁰ See Gertler (2003) for a detailed survey of the tacit dimension as well as its relation to the broad institutional infrastructure at the national level.

³¹ Edquist and Chaminade (2006) label that as the ‘selectivity’ problem by arguing that the design of the innovation policy inevitably inherits ideology and other concerns which make the design ‘selective’ rather than ‘neutral’.

down the immense scope of government intervention as discussed and legitimized in the literature, we argue to justify intervention *only if* it makes a contribution to the launch of a strong innovation system. In other words, following our starting-point of analysis we prefer to define *system construction* in relation to the innovation process. *System construction* refers to the establishment of a strong national system of innovation³².

It is beneficial to state that our definition of *system construction* becomes meaningful only if we subscribe to a broad definition of ‘innovation system’. If we are not to refrain from the one-dimensional standpoint of the linear models of innovation which fail to capture the dynamic characteristics of the innovation *process*, we cannot appreciate the vital importance of the linkages between the varying elements of a national system of innovation. As mentioned, it is not only the prior existence of quality institutions and organizations that foster the learning process and innovative activity, but it is also the strength of the relations in between elements that enables the launch of a successful innovation process. Especially in developing countries the main task of governments is to establish and promote the ties among the diverse actors in the political economy that are related to the innovation process.

Putting those discussions aside, let us further our discussion by asking the question why a line of the VoC literature misses the importance of *system construction* in the elaboration of national political economies. By answering that question we aim to (1) emphasize the actuality of government intervention from a different angle (2) underline the shortcomings of the initial configuration of VoC approach when applied to the developing world and (3) learn from the shortfalls of VoC stance to provide a broader perspective that integrates the unique characteristics of developing countries into the analysis. In order to fulfill those

³² In line with NSI literature, we do not treat ‘system’ as if it could be build solely with conscious efforts. There are also unconscious circumstances that have a say in the shaping of a system. However, this does not prevent us to appreciate and analyze conscious efforts in the making of a strong system.

objectives we will first revisit some of the initial building blocks and core propositions of VoC approach.

The first major pillar of VoC stance is its exclusive focus on efficiency considerations in the elaboration of political economies. Although the importance of the political realm and other related concerns that fall outside the domain of efficiency are appreciated, these are attributed a rather minor role allowing the dominance of efficiency considerations in the analysis. As elaborated in Chapter 2, all core concepts and arguments of VoC stance such as *institutional complementarities* and *institutional comparative advantages* are built upon this initial reliance on efficiency. The second major pillar, which follows the first one, is the argument that there actually exist *pure types* of national political economies that are said to be the destination points for *hybrids*, *mixture of the pure types*. The unique characteristic of the pure types is that they are capable of exploiting the fruits of institutional complementarities to the greatest extent. They have coherent institutional frameworks relying on which their firms solve their coordination problems in an efficient way. Hybrids, on the other hand, do not have a coherent institutional infrastructure. They combine the various institutions of the pure types in a dysfunctional way. In short, they are the mixture of the pure types. Consequently, when it comes to revealed long-term economic performances, the pure types are superior to the hybrids. For this very reason, hybrids are expected to converge to the pure types. This suggestion, however, rests on the premise that the political realm and other related concerns have a secondary importance in the elaboration of political economies. Their existence does not affect the primacy of efficiency considerations.

The above propositions of VoC stance are actually reflections of its methodology and scope of analysis. In terms of methodology, VoC perspective externalizes capitalism, takes capitalism for granted, and then by relying on its observations of the actually-existing phenomena conceptualizes the so-called pure types of a national political economy (Crouch, 2005; Ozveren et al., 2012). In terms of scope, as these investigations are made with respect to the developed political

economies, they naturally reflect the characteristics of the developed world. As a matter of fact, they reflect the unique characteristics of the case studies that the stance largely relies on. These are the political economies of the US and Germany. Therefore, VoC framework is constructed to analyze political economies that have a system to begin with. Although the role that governments play is crucial in those economies, it is not *at par* with their counterparts that do not have a system to begin with. As mentioned earlier, the main problem of the developing world is system construction, a process in which governments assume the greatest role. That is one of the reasons why VoC perspective misses the importance of system construction and consequently government intervention in the elaboration of developing political economies.

There is one interesting question that comes to mind at this point. Why is the initial configuration of VoC stance has been offered as an adequate tool in the examination of developing political economies *although* its limitations are well-known from the very beginning in the explanation of how institutions emerge? As elaborated in Chapter 2, Hall and Soskice (2001, 2003) explicitly highlight this limitation of the perspective. One possible answer of that question is provided by the writers themselves. As mentioned, although Hall and Soskice (2001, 2003) acknowledge the complicated characteristics of the emergence process of institutions, they still favor the adequacy of VoC perspective in the elaboration of how institutions emerge. The justification is that efficiency considerations can explain a great deal of the phenomena. If we are to put that explanation aside, a second possible answer of that question actually explains why VoC stance misses the role of government intervention in the elaboration of the developing world. That is, VoC stance foresees the convergence of hybrids to the pure types eventually, undermining the initial distinguishing characteristics of the hybrids which might very well lead them to institutional frameworks that are entirely different from the ones that characterize the pure types. Consequently, the role that governments play in hybrids is greatly overlooked as they are assumed to

converge anyway to a pre-determined destination where active government intervention is minimal.

Thus far we have only emphasized the actuality of government intervention from a different angle when the developing world is at stake. It is up to the following part of the analysis to underline the shortcomings of the initial configuration of VoC approach when applied to the developing world and to learn from the shortfalls of VoC stance to provide a broader perspective that integrates the unique characteristics of developing countries into the analysis. If we are to accomplish those, we will be able to provide a different standpoint concerning the convergence debate as it is discussed in the VoC literature.

4.3 Redefinitions of the Concepts: Towards a CME

In this last section, we have two main objectives that will be attempted jointly. These are (1) to put forward the deficiencies of VoC stance as well as their reflections on convergence and (2) to propose a new perspective in terms of the convergence debate by integrating the lessons we derive from those deficiencies to our own position that is developed so far. Up until now, we have already mentioned some of the shortfalls of VoC stance. These are mainly derived from the modifications and arguments of the VoC literature. As stated, one major common characteristic of the VoC literature is that the initial configuration of the stance is seen as an adequate tool in the elaboration of developed political economies. Most of these studies depart from the initial configuration of the approach *only when* the developing world becomes a matter of concern. However, a different line of the comparative political economy literature directly criticizes the building blocks and core arguments of VoC stance *even* in the investigation of developed political economies. In this section we will mostly refer to those critiques of VoC stance to be able to provide a broader standpoint in terms of the convergence debate³³.

³³ For a broader categorization of the various critiques of VoC perspective see Hancke et al. (2007).

One of the most vital criticisms directed at VoC approach is its inadequate conceptualization of institutional change. The stance is said to overlook the dynamic characteristics of change as a result of its excessive focus on efficiency considerations. That excessive focus is said to eventually lead the analysis to arguments based on *institutional determinism* (Thelen, 2003; Crouch and Farrell, 2004; Coates, 2005; Pontusson 2005; Jackson and Deeg, 2006). As elaborated in Chapter 2, in VoC perspective, *institutional complementarities* link the various institutions of a political economy through efficiency concerns and once there is a coherent institutional framework to start with, change is expected in line with the pre-existing *institutional comparative advantages* of that particular framework. In this respect, even though the scope and the impact of the initial change might not be known, the *direction* of the change is more or less predictable. In consequence, although there *seems to be* change in the elaboration of VoC stance, the meaning and scope of that change is rather minimal and narrow. As Höpner (2005) underlines, overlaps between *complementarity* and *institutional stability* are assumed in VoC analysis which reinforces resistance to radical change. Boyer (2005) puts forward a similar argument from a different angle. As he observes, the lock-in characteristics of institutions in VoC analysis strongly imply the existence of stable conjunctures that do not tend to change *unless* an external shock disturbs the initial equilibrium. In other words, by treating change as if it occurred only due to the prior existence of external factors, VoC stance disregards the crucial roles of internal dynamics that may lead to significant changes in a political economy. In a similar fashion, a number of scholars accused VoC approach for putting forward *functionalist* claims by having overlooked the importance of power, class, and conflict in the elaboration of political economies (Howell, 2003; Amable and Palombarini, 2008; Watson 2003; Pontusson 2005).

So, how can one resolve the above deficiencies of the initial configuration of VoC stance as well as a line of the VoC literature? One particular and efficient way to do that is to go beyond the primary focus on efficiency considerations in the elaboration of political economies. As elaborated in Chapter 2, a line of the VoC

literature tried to achieve that objective by inviting us to consider the unique characteristics of the developing world that undermined the strict focus on efficiency concerns. Moreover, as examined in Chapter 3, a decade earlier than VoC stance, NSI approach proposed to build an analytical framework that is centered on the innovation process which challenges the adequacy of efficiency considerations if it is to be elaborated as in the case of VoC perspective. To serve to the same end as mentioned above, scholars of Regulation School proposed to include the political realm into the analysis. We will now briefly elaborate the arguments of the Regulation School relying on which we will emphasize the need of a broader perspective in the elaboration of developing political economies.

An attempt to go beyond the initial confines of efficiency considerations immediately calls for the redefinition of the key concepts. That is what is done by the scholars of Regulation School. To begin with, *institutions* are defined as “political economy equilibriums that correspond to a compromise between conflicting social actors” (Amable, 2005: 371)³⁴. With this definition the required link between the economic and political realms is recovered. Then, this recovery is furthered by the argument that “rather than directly linking institutions and institutional change to *economic performance*, one should analyze institutions with respect to the establishment and evolution of *social compromises*” (Amable, 2005: 371, emphasis added). The shift in the primary focus from economic performance to social compromise inevitably leads to the enlargement of the scope of analysis. In a compatible fashion to the above definition of institutions and the following argument concerning how we should elaborate political economies, another key concept of comparative political economy literature is redefined. That is the notion of *institutional complementarity*. As we outlined in Chapter 2, *institutional complementarity* constitutes the ‘soul’ of VoC stance as the very core arguments of the perspective rely on that prior conceptualization. Due to the fact that institutional complementarity is defined with reference to efficiency considerations in the first instance, all related concepts and arguments

³⁴ Although social conflict is ‘suspended’ to a certain extent, it is not ‘abolished’ completely.

of the perspective also inherited those concerns intrinsically. That is why there was a need for a redefinition of the concept in the Regulation perspective, following which *institutional complementarity* is said to describe “a configuration in which the viability of an institutional form is strongly or entirely conditioned by the existence of several other institutional forms, such that their conjunction offers greater resilience and better performance compared with *alternative configurations*” (Boyer, 2005: 367, emphasis added). This variant of the elaboration of institutional complementarity has significant consequences in terms of our position in the convergence debate and we will elaborate them in a minute. Now, we will further our discussion by focusing on another implication of the above conceptualization of institutional complementarities to emphasize yet another deficiency of VoC perspective.

A second major criticism directed to VoC approach, which is related to the first one, is the underestimation of *variety* among national political economies. There are two lines of criticisms concerning this lack of variety. While a line of them underlines the need for a broader approach that can elaborate variety not only *within* but *beyond* capitalism to appreciate the true variety that exists in socio-economic systems, the other line exclusively focuses on *within* capitalist diversity, this time to reveal how VoC stance undermines even that kind of variety (Ozveren et al., 2012; Amable, 2003; Boyer, 2005a; Boyer, 2005b; Höpner, 2005; Jackson, 2005). The former line of criticisms lies beyond the scope of this particular study. Here, we will emphasize how VoC stance disregards within capitalist diversity to draw some conclusions in terms of the convergence debate.

It is suggestive that most of the examples that are given to show the negligence of variety in VoC approach are derived with reference to the German case. As mentioned in Chapter 2, VoC perspective mainly relies on the German political economy to reveal the very distinguished characteristics of a CME. That is actually one of the reasons that the stance is sometimes criticized for its exclusive focus on a particular political economy to make broad generalizations inconveniently (Crouch, 2005; Ozveren et al., 2012). Thus, if the link between the

German case and the conceptualization of a CME is broken in favor of a more diversified view of the actuality, it will reflect the omission of variety in VoC analysis. In this respect, a number of studies tried to emphasize how the so-called market modes of coordination and non-market modes of coordination are concurrently present in the German political economy *in a way that* does not undermine the successful long-term economic performance of the country. It is worth mentioning that the second part of the argument is highly crucial because the simultaneous existence of different modes of coordination does not mean inferior economic performances. Jackson (2005: 379-380) highlights the above said arguments in an illustrative way by revisiting the institutional complementarity notion. As the writer argues, although one might assume X to complement Y in the undertaking of Z in general terms, due to the fact that the ‘real world social actors’ face with multiple functions ($Z1, Z2, Zn$) and trade-offs between them, one needs to construct a meta-model to cover all of those possible functions. However, that attempt is hardly feasible as (1) utility functions are highly related to the *strategic choices* of actors instead of being ‘natural’ (2) the complementarity of institutions can occur as a result of ‘unintended’ consequences of minor adaptations (3) exogenous factors may play a vital role in the process. Furthermore, a specific sphere may not be uniform in itself in terms of complementarity. As exemplified, “one institution in the [corporate governance] domain may be compatible with one element of industrial relations, but *less so* with others” (Jackson, 2005: 380, emphasize added). What we deduce from the arguments of Jackson (2005) is that the conception of complementarity in VoC analysis seriously undermines the *variety of concerns* that actually give rise to *variety*. In line with that, a number of concrete examples are given in the literature to reveal how different modes of coordination exist simultaneously in the German political economy *without* jeopardizing the economic success of the country (Höpner, 2005; Boyer, 2005). In consequence, if we are to stick to the terminology of VoC stance and re-examine the German political economy in the light of the above arguments, the German case will actually represent the

characteristics of a hybrid economy. As it is clear, this is a rather unappealing outcome for the analytical construction of VoC perspective.

The third major criticism directed to the initial configuration of VoC approach is the invisibility of government in the analysis. As elaborated in Chapter 2, although Hall and Soskice (2001) adopt an actor-based perspective to political economy by treating it “as a terrain populated by multiple actors, each of whom seeks to advance his interests in a rational way”, the exclusive focus is on firms as firms are seen as “the key agents of adjustment in the face of technological change or international competition whose activities aggregate into overall levels of economic performance” (Hall and Soskice, 2001: 6). Furthermore, as the stance compares and contrasts national political economies with respect to the ways that their firms solve their coordination problems, all actors in a political economy derive their significance in proportion to their association with those coordination problems. In this respect governments are exception.

We have already elaborated a part of the criticisms concerning the lack of government in VoC analysis. Both a line of the VoC literature and NSI approach underline the point. As indicated in Chapter 2, the former literature mostly attracts our attention to the role that governments play specifically in a developing political economy. Having emphasized various distinguishing characteristics of those economies such as their external dependency, the role of TNCs and foreign direct investment, and the importance and uniqueness of institution-building process, they reveal how government capabilities undermine or foster the development path of a developing political economy. As outlined in Chapter 3 and elaborated at the very beginning of this chapter, NSI literature justifies government intervention with reference to the specific characteristics of the innovation process. Besides these two literatures, the critiques of VoC stance also highlight the need to integrate government into the analysis not only in the elaboration of developing countries but also in the examination of the developed world. It is argued that governments play a more encompassing role in a political economy than the role that it is attributed to in the initial configuration of VoC

approach. The impact of governments cannot be boiled down to the coordination problems of firms as it is outlined in VoC stance but that impact itself should be utilized as a differentiating dimension in the categorization of political economies. In consequence, the critics of the initial configuration of the VoC stance foresee a more diversified picture when they examine the developed world in which the role of governments becomes a differentiating dimension itself (Amable, 2003; Boyer, 2005).

Before furthering our discussion, let us briefly summarize what we have done so far in this chapter. First, we proposed ‘innovation’ as a starting-point of analysis. Although appreciating the roles of macroeconomic policies and external factors in the elaboration of developing countries, we attributed a greater significance to the innovation process as it is this process that actually enables successful rates of long-term economic performance. Secondly, by digging into the unique characteristics of the innovation process, we tried to justify government intervention when the developing world is at stake. Lastly, we examined the various critiques of VoC stance to take lessons from them in terms of the convergence debate. Three such major criticisms are elaborated as (1) inadequate conceptualization of *institutional change* (2) underestimation of *variety* among national political economies (3) lack of *governments* in the analytical construct.

In the light of the above elaborations, as well as the ones that are developed in Chapter 2 and Chapter 3, the main contention of this study is that *there actually are forces that divert developing countries to converge to a political economy that resembles more a coordinated-one*. That conclusion contradicts with the initial configuration of VoC perspective as well as some part of the comparative political economy literature. As elaborated, in Hall and Soskice (2001) developing countries tend to converge to a LME. The dysfunctional institutional frameworks of the developing world are said to crack under the pressures of globalization and internationalization of finance which drive the institutional configurations of those economies to a structure that is similar to a LME. Furthermore, as it is easier to implement deregulatory policies for the governments of developing countries and

there has to be a historically developed *common knowledge* as a prerequisite for a possible convergence to a CME, the developing world is likely to converge to a LME.

If we are to put that seeming contradiction aside, there is one more point that mainly differentiates our position with the initial standpoint of VoC stance. That is the meanings attributed to the key terms such as ‘CME’ and ‘convergence’. In VoC stance, CME represents a political economy in which firms solve their coordination problems mostly *via* non-market modes of coordination. The various actors of a CME interact through *strategic interactions*, a particular way of conducting endeavors. CME is one of the two pure types of political economy representing an ideal institutional framework that is capable of providing the most satisfactory levels of long-term economic performance among national political economies. That is due to its coherent institutional framework in which various institutions and organizations of the economy are efficiently intertwined to one another. Convergence, on the other hand, is defined as a process in which the characteristics of a particular institutional configuration are reconstituted to end up with a structure that is similar to either of the pure types. In this respect, it refers to *strong convergence*. As Gertler (2001) argues, there is a key distinction between *weak* and *strong* convergence. While *weak convergence* occurs “when a firm originating in country A establishes (or acquires) a branch in a new host country B, and adopts the distinctive practices characteristic of the host country (B) at its foreign site”, *strong convergence* occurs “when the same firm adopts ‘country B’ practices for implementation in its home country (A) operations (with or without having first established a foreign branch)” (Gertler, 2001: 7-8). Thus, if we are to differentiate convergence in line with the proposition of Gertler (2001), what VoC analysis foresees is *strong convergence* as the very institutional framework of the political economy that is of concern is expected to converge to either of the pure types. Furthermore, as elaborated in Chapter 2, what fuels the convergence process is efficiency considerations and as discussed in this chapter institutional change, therefore convergence, is expected to occur as a consequence

of external factors. These external factors are mainly globalization and internationalization of finance.

In our own position, the terms ‘CME’ and ‘convergence’ reflect different meanings when compared to the above case. First, in our conception, *CME refers to a political economy which inherits the main characteristics of a strong innovation system*. In Chapter 3, we outlined the features of that kind of a system by relying on NSI approach. To put it briefly, a strong system of innovation owns quality institutions and organizations that foster the interactive learning and innovation processes. More importantly, it inherits the required linkages between those institutions and organizations which is the one vital prerequisite in the undertaking of a successful innovation process³⁵. Furthermore, *one of the major characteristics of a CME in our investigation is government intervention*. As elaborated, the nature of the innovation process and the process of system construction call for government intervention in developing political economies. However, that intervention is relevant only if it contributes to the making of a successful innovation process. In other words, types of interventions that are aimed to secure the short-term benefits irrespective of their contributions to the construction of a strong innovation system are not valued. Another point that differentiates our conception of CME with that of VoC stance is the mode of coordination that is adopted by the firms of CMEs. In our conception, CME firms may utilize market-modes of coordination alongside non-market ones in a way that does not hamper the rates of overall economic performance. In this respect, we comply with the critiques of VoC stance. As already elaborated, both market and non-market modes of coordination concurrently exist in the German political

³⁵ Let us say we have two innovation systems at hand which are characterized as (1) by having quality institutions and organizations but lacking the required linkages between them (2) having less quality institutions and organizations but inheriting the linkages between them. With reference to our elaborations in Chapter 3, we can argue that the second case is more desirable in the sense that it can provide a more suitable background for the making of a successful innovation process. In contemporary world, if there are no linkages between the various determinants of the innovation process, it is highly unlikely that there will be an ‘innovation’ as an outcome.

economy without undermining the economic success of the country. The same phenomena can be applied to our own conception of CME.

When it comes to the conception of ‘convergence’, we do not utilize the term in a strict and pre-specified way as it is done in VoC perspective. There are two main reasons of that which mutually reinforce each other. First, unlike VoC approach we do not favor the construction of *ideal types* relying on which the configuration of an actually-existing political economy is judged. Instead, in line with NSI literature, we subscribe to the idea that the very unique characteristics of the innovation process undermine the construction of an ideal type. Secondly, we do not define the term with reference to efficiency considerations only. In the sense that we apply the term, ‘convergence’ neither implies a desirable move towards the more efficient form (in VoC stance the pure types), nor does it imply a pre-determined journey that leads to an existing institutional infrastructure by the end of the road. As we mentioned in this chapter, that kind of a perspective would seriously undermine the variety that is observed among national political economies. Furthermore, it would directly undermine the very unique characteristics of the developing world. As Gerchenkron (1962) underlines, “in several important respects the development of a backward country may, by the very virtue of its backwardness, tend to differ fundamentally from that of an advanced country” (1962, p. 7). Moreover, as a number of studies put forward, the developed world is actually a moving target. Thus, it is not adequate to cast a pre-specified role to developing countries by relying on efficiency considerations as a chief motivator of convergence. In light of the above considerations, what we mean by ‘convergence’ is a process in which developing political economies enhance their own capacities to become a CME. Although that definition seems to contradict with previous elaborations, our flexible characterization of CME serves to avoid any possible contradiction.

CHAPTER 5

CONCLUSION

The major aim of this thesis has been to provide a new perspective on the convergence debate as it is discussed in VoC literature. Having distinguished between two possible lines of discussions of convergence as (1) convergence *between* the pure types (2) convergence *to* the pure types, we focused on the second line of the debate. Thereafter, by the term ‘convergence debate’ we specifically referred to the fate of hybrids, in other words developing countries, then proposed to examine the possible convergence paths of those hybrids from a different angle.

In this respect, in Chapter 2, we exclusively focused on VoC approach. As a first step, we evaluated Hall and Soskice (2001) where the theoretical underpinnings of the approach were put forward. According to Hall and Soskice (2001), one adequate way to conceptualize the variety among national political economies is to focus on the ways that firms solve their coordination problems. Then, the next task is to take the coordination problems of firms as a differentiating dimension in the categorization of political economies. By having subscribed to this methodology, Hall and Soskice (2001) propose two pure types of political economy labeled as LME and CME. The pure types are said to enjoy superior long-term economic performances thanks to their coherent institutional frameworks. They represent ideal types of political economy that are constructed abstractly. All political economies other than the pure types are labeled as hybrids. Contrary to the pure types, hybrids do not have coherent institutional configurations, lack of which results in unsatisfactory rates of long-term economic performance. In this respect, one of the most important arguments of VoC stance

especially for the purpose of this study is that hybrids are expected to converge to the pure types so as to enhance their economic performance, although the chances of convergence are not equally distributed between the targeted pure types.

Having outlined the building blocks and core arguments of the initial configuration of VoC stance alongside the reflections on the convergence debate, in the latter part of Chapter 2, we moved to the elaboration of VoC literature. By ‘VoC literature’ we referred to the studies that tried to enlarge the scope of Hall and Soskice (2001) by including developing political economies to the analysis. Our major objective was to evaluate the impact of the enlargement of the scope on the convergence debate. In this respect, we classified the varying arguments of VoC literature under four broad groups. First group consisted of the studies that applied the initial configuration of the stance to developing countries and classified those countries as either a LME or a CME. In the second group, the developing countries that are of concern are categorized as a mixture of the pure types, in other words hybrids. In the third, the inapplicability of the initial configuration is shown by applying the initial construct to the developing world. In terms of convergence, the pathways of those countries remark ambiguous. In the last group, developing countries are identified as pure types in their own right. The initial bipolar variety of the approach thus proliferated thanks to the distinguishing characteristics of the developing world. In this respect, the arguments of this last group are especially important for the purpose of this study. As revealed, the externally dependent character of the developing world, the role of governments and transnational companies (TNCs), and the importance of institution-building process call for a serious re-examination of the initial configuration of VoC perspective when it is to be applied to the developing world. Accordingly, the main propositions in terms of the convergence debate need to be revisited.

Although we appreciated the various criticisms and modifications of VoC literature alongside the conclusion that one has to go beyond the initial configuration of VoC approach to be able to integrate developing political

economies into the analysis, we underlined a major deficiency of that literature. That is their insufficient focus on the innovation process. Even though a number of these studies briefly touch upon innovation via foreign direct investment or research and development, they never fully focus on the innovation process. Innovation is neither defined nor elaborated in an adequate fashion. In order to emphasize the vital role of the innovation process in a political economy, especially in the developing ones, as well as its impact on the convergence debate, in Chapter 3, we moved to the elaboration of NSI approach.

One of the very core arguments of NSI literature which has important implications for our position in terms of the convergence debate is that it is not the short-term oriented policies that provide successful rates of long-term economic performance, but it is the strong innovation system that enables it. A strong innovation system inherits quality institutions and organizations that foster the interactive learning and innovation processes and beyond that owns the required interactions among them. In this respect, by criticizing the narrow conceptualizations of linear models of innovation that treat ‘innovation’ as a steady outcome that directly follows from formal science and technology, NSI literature proposes to treat ‘innovation’ as a socially embedded process that should be evaluated in a broad fashion. It emphasizes the crucial role of informal institutions in the undertaking of a successful innovation process by opening up the narrow focus on the formal institutions of innovation such as formal science and research and development. As a consequence, NSI perspective invites us to focus on the innovation process, and consider all other issues in a political economy with respect to their inputs to that process. In other words, it proposes to take ‘innovation’ as a starting-point of analysis.

Yet another core argument of NSI perspective relying on which we shaped our own position is the inadequacy of ‘pure’ or ‘ideal’ types in the elaboration of national political economies. The very nature of the innovation process undermines the construction of a pure type with reference to which the efficiency of an actually existing political economy is judged. Therefore, in terms of

convergence, the developing world does not tend to converge to an ideal institutional framework representing the ultimate levels of efficiency. What is more, as all national economies are seen as ‘moving targets’ destinations of which are ambiguous to the contemporary observer, the stance also does not expect a particular framework to converge to an actually-existing institutional infrastructure. In this respect too NSI approach does not anticipate a clear pathway for the developing world.

Thus far, on the one hand, with reference to our elaboration of VoC stance, we came to the conclusion that a bipolar variety is never enough for the conceptualization of variety that is observed among national political economies. Furthermore, although variety proliferates when the distinguishing characteristics of the developing world are included in the general picture in VoC literature, that literature fails to grasp the vital importance of the innovation process which has important affects on the convergence debate. Our examination of NSI stance, on the other hand, implied that no ideal type of political economy can be constructed so as to evaluate the performances of actually existing institutional infrastructures. Following Amable (2003) we ask a particular question at this point. How can we balance the two extreme positions that are described above? It is for sure that a group of economies reflect similar traits and distinguish themselves from the rest with respect to their special characteristics. We need a conceptualization that encompasses the distinct properties of these groups of political economies. Nevertheless, each and every political economy also has unique characteristics that differentiate it from the rest in a particular group. Thus, our initial categorization will be undermined in that situation. How can we generate a particular conceptualization that represents the distinguishing characteristics of a particular group and yet appreciates the special characteristics of each and every political economy? In Chapter 4, we tried to provide such a framework for the developing world. Then, we tried to link that framework to the convergence debate.

To serve that particular purpose, we emphasized four major points in Chapter 4. At the outset, following NSI literature, we proposed to take ‘innovation’ as a starting-point of analysis in the elaboration of developing political economies. It is not the short-term policies that determine long-term economic performances of political economies, but it is the strong system of innovation that enables it. Then, we went on to argue that the primary focus on ‘innovation’ necessitates and justifies government intervention to a certain extent due to (1) the nature of the innovation process and (2) the importance of *system construction* in a developing political economy. Innovation is a process that entails high levels of risks which cannot be tolerated by the individual actors of the developing world due to the lack of quality institutions and organizations that foster the innovation process as well as the required linkages among them. Furthermore, knowledge is not an ordinary commodity that can be handled effectively in the market system. It is no coincidence that a significant part of NSI literature justifies government intervention one way or another due to the above-mentioned reasons. If we are to put those aside, contrary to their developed counterparts, developing countries do not have a system to begin with that is capable of producing a successful innovation process. As a line of VoC stance underlines, the main problem of the developing countries is institution-building, in other words system construction, a process in which governments play the most vital role. As a consequence, there is a need for government intervention, especially in the developing countries.

Having proposed ‘innovation’ as a starting-point of analysis and justified government intervention to a certain extent, we argued that *the developing world is more likely to converge to a political economy that resembles more a coordinated one*. At first sight, that argument seems to contradict with our initial objective. This would be true if we were to apply the terms ‘CME’ and ‘convergence’ in the same way as they are utilized in the original formulation of VoC stance. However, in order to propose a framework that captures the common characteristics of the developing world without undermining the distinguishing characteristics of individual political economies, we substantially altered the

meanings of 'CME' and 'convergence'. In the original configuration VoC stance, CME represents a political economy in which firms solve their coordination problems mostly *via* non-market modes of coordination. In our conceptualization CME refers to a political economy which inherits the main characteristics of a strong innovation system. In VoC perspective, 'convergence' is defined as a process in which the characteristics of a particular institutional configuration are reconstituted to end up with a structure that is similar to either of the pure types. In our conceptualization, 'convergence' is defined as a process in which developing political economies enhance their capacities to become a CME, in the new sense that we utilize the term.

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APPENDIX



TEZ FOTOKOPİ İZİN FORMU

ENSTİTÜ

- Fen Bilimleri Enstitüsü
- Sosyal Bilimler Enstitüsü
- Uygulamalı Matematik Enstitüsü
- Enformatik Enstitüsü
- Deniz Bilimleri Enstitüsü

YAZARIN

Soyadı : Karaoğuz

Adı : Hüseyin Emrah

Bölümü : Bilim ve Teknoloji Politikası Çalışmaları

TEZİN ADI (İngilizce) : Varieties of Capitalism and National Systems of Innovation: A New Perspective on the Convergence Debate

TEZİN TÜRÜ : Yüksek Lisans Doktora

1. Tezimin tamamı dünya çapında erişime açılsın ve kaynak gösterilmek şartıyla tezimin bir kısmı veya tamamının fotokopisi alınsın.
2. Tezimin tamamı yalnızca Orta Doğu Teknik Üniversitesi kullanıcılarının erişimine açılsın. (Bu seçenikle tezinizin fotokopisi ya da elektronik kopyası Kütüphane aracılığı ile ODTÜ dışına dağıtılmayacaktır.)

3. Tezim bir (1) yıl süreyle erişime kapalı olsun. (Bu seçenekle tezinizin fotokopisi ya da elektronik kopyası Kütüphane aracılığı ile ODTÜ dışına dağıtılmayacaktır.)

Yazarın imzası

Tarih 22.08.2012