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Comparative capitalism and the empirical taxonomy of context: enhancing the institutionalist blueprint

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Comparative Capitalism and the Empirical Taxonomy of Context

Enhancing the Institutionalist Blueprint

Abstract

Purpose – Critiques of international business (IB) have long pointed to the weaknesses in the understanding of context. This has ignited debate on the understanding of institutions and how they "matter" for IB. Yet how institutions matter ultimately depends on how IB applies institutional theory. It is argued that institutional-based research is dominated by a narrow set of approaches, largely overlooking institutional perspectives that account for institutional diversity. This paper aims to forward the argument that IB research should lend greater attention to comparing the topography of institutional configurations by bringing political economy "back in" to the IB domain.

Design/methodology/approach – Using principal components analysis and hierarchical cluster analysis, the authors provide IB with a taxonomy of capitalist institutional diversity which defines the landscape of political economies.

Findings – The authors show institutional diversity is characterised by a range of capitalist clusters and configuration arrangements, identifying four clusters with distinct modes of capitalism as well as specifying intra-cluster differences to propose nine varieties of capitalism. This paper allows IB scholars to lend closer attention to the institutional context within which firms operate. If the configurations of institutions "matter" for IB scholarship, then clearly, a quantitative blueprint to assess institutional diversity remains central to the momentum of such "institutional turn."

Originality/value – This paper provides a comprehensive survey of institutional theory, serving as a valuable resource for the application of context within international business. Further, our taxonomy allows international business scholars to utilise a robust framework to examine the diverse institutional context within which firms operate, whilst extending to support the analysis of broader socioeconomic outcomes. This taxonomy therefore allows international business scholars to utilise a robust framework to examine the institutional context within which firms operate.

Keywords: Institutional approaches; Capitalism; Varieties of; Comparative Capitalism; Political Economy; International Business

1. Introduction

It is largely established in the international business (IB) literature that "institutions matter", but the way in which they matter remains a contestable yet growing domain (Jackson & Deeg, 2008; 2019). Multinational enterprises (MNEs) are embedded within varied external environments as characterised by the wide institutional diversity underpinning the landscape of political economies. It is these diversities that define the institutional context that produce varied forms of economic action and business activities. Consequently, bringing institutions 'back in' to IB is increasingly recognised as a fertile area of scholarly development, prompting the growing use of contextual and institutional arguments (Henisz & Swaminathan, 2008; Redding, 2005). Critiques of international business research have often outlined the weaknesses in how IB understands and approaches contextual factors (Redding, 2005). With institutions providing the natural contextual layer underpinning the 'duality of firms' foreign activities, blending institutional perspectives remains key to the development of international business research.

Yet how institutions matter ultimately depends on how they are conceptualised (Eden, 2010; Rana & Morgan, 2019). True to its interdisciplinary core, IB research has scope to draw on an eclectic set of institutional approaches from various disciplinary foundations, including economics, political science, and sociology. The multiplicity of available approaches further raises debate of the 'meaning' of institutions; how institutions are defined is contingent to the strand of institutional theory. Institutional theory is characterised by an eclectic range of diverse theoretical and methodological approaches which draws from the domains of economics, political science and sociology (Sahin & Mert, 2022). Consequently, as the label of 'institutions' is used in IB to capture a range of concepts deriving from varied strands of institutional theory, how they are defined and how they impact the activities of multinational firms remains varied, theoretically contingent, and complex. For us, it is argued that IB has concentrated on a 'narrow' conception and 'thin' application of institutions (Allen & Aldred, 2014; Jackson & Deeg, 2008; Aguilera & Grogaard, 2019). For IB, therefore, the focus of the literature has been on defining institutions as 'converging' structures, with little attention paid to comparing the topography of institutional diversities (Jackson & Deeg, 2008; Aguilera & Grogaard, 2019; Henisz & Swaminathan, 2008).

The under-appreciation for various institutional approaches is problematic as institutional approaches differ extensively by way of their conceptualisation of institutions, their level of analysis and subsequently their explanation of how institutions matter for international business. IB research, for us, has scope to draw on three main institutional approaches: 1) new institutional

economic (NIE); 2) new organisational institutionalism, and 3) comparative capitalism (CC). As such, awareness of this 'menu' of institutional approaches allows IB research to broaden its institutional repertoire with fresh theoretical perspectives (Hotho & Pedersen, 2012; Sahin & Mert, 2022). Yet, the IB field seems to overlook the plurality of institutional approaches and their consequent explanatory powers. This has provided calls for bringing political economy approaches 'back in' by lending attention to comparative capitalist (CC) perspectives (Jackson & Deeg, 2008; Allen & Aldred, 2014; Fainshmidt et al, 2018; Sahin & Mert, 2022).

For us, adopting a comparative capitalism (CC) perspective offers attention to the varied institutional context within which MNEs operate as well as combining political economy into the study of international business, providing further scope to institutional based IB research (Allen & Aldred, 2012; Hotho & Perderson, 2012). Importantly from a CC perspective, institutions are viewed as complex bundles that cannot be dismantled or seen in isolation yielding distinct national configurations, generating a particular systemic logic of economic action whilst producing unique endowment sets for multinational firms (Hall & Soskice, 2001; Amable, 2016). The CC concept of institutional complementarities underpins this, whereby the effectiveness of an institutional form in one area is conditioned by institutions in other areas (Aoki, 1994; Boyer, 2005; Amable, 2016). This supports an institutional-based theory which shifts attention away from the stylised search for an optimum set or form of institutions, instead underlining the multiplicity of equitable institutional configurations/models. Such an 'institutional configuration' approach enables the greater integration of research beyond institutional singularity and thus transcends theoretical debate on whether formal or informal institutions are 'more' important for the internationalisation of firms, for example. Therefore, CC considers the multiple attributes in institutional domains, as opposed to the isolated effects of those attributes on firm activity, foreign direct investment and internationalisation motives. Adopting this approach therefore allows IB to overcome the use of unidimensional and unidirectional institutional variables that leads to an oversimplification of institutional complexities (Wood & Allen, 2020) and their diverse impacts on business activities and decisions**.** As IB scholars, we need to explore embedded interactions and interdependence between institutions, moving from 'thin' to 'thick' IB approaches (Aguilera & Grogaard, 2019).

To contribute to a greater understanding of institutional application in IB, this paper empirically taxonomises institutional capitalist diversity, providing a rationale and framework for its relative application to international business research. Indeed, this paper is concerned with identifying: 1) the extent to which capitalist institutional diversity exists, and 2) how these diversities are manifested? Taking an empirical, taxonomic approach, we estimate using Principal Components

Analysis (PCA) to produce a variety of institutional dimensions. From this, we employ hierarchical cluster analysis to assess how countries cluster along these dimensions to establish taxonomic differences between countries. Our results contribute new understandings to the extant literature by highlighting four novel clusters with distinct modes of capitalism. In addition, we identify intra-cluster differences and propose nine varieties of capitalism. Given these findings, we contribute a new framework & blueprint for institutional research in IB, one led by the call to draw on comparative capitalism perspectives (Jackson & Deeg, 2008; Aguilera & Grogaard, 2019; Henisz & Swaminathan, 2008) in this paper.

The next section highlights the plurality of institutional approaches utilised in the course of IB research, supporting the premise to move from a narrow and thin conception of institutions. Section 3 provides insights into the methodological approach. Section 4 expands the empirical estimation, with our taxonomic findings discussed in section 5. We discuss the implications for international business and comparative capitalism within section 6.

2. International Business and Institutional Approaches: Establishing Institutional Plurality

While bringing institutions 'back in' to IB has increasingly been recognised as a fertile area of scholarly development (Henisz & Swaminathan, 2008; Redding, 2005), opaqueness remains with the application of institutional perspectives; how we define institutions and how they impact the activities of multinational firms often remains unclear. Institutional theory is not a homogenous domain, but characterised by a wide plurality of approaches that provides a range of potential analytical perspectives and definitions of institutions. This poses a notable challenge for IB, in that the label of "institutions" has been used to, incidentally, to capture a range of approaches to both the study and application of institutional theory in IB. For example, we define institutions as self-reinforcing structures emanating from the strategic interaction of actors within institutional contexts, in which there is complementarity and path dependency. In this sense, actors may shape institutions whilst acting against inertial powers of existing institutions, creating new patterns of action and path dependencies where they carry their preferences forward (Streeck & Thelen, 2005). Preferences of actors may not be pre-given, rather formed by institutions derived from a process of institutional reproduction and change. However, some may maintain the focus of institutionalist analysis in that actors have a temporally fixed set of preferences and tastes, behaving instrumentally as so to lock-in institutions attainment of these preferences (Hall & Taylor, 1996). The take on the relationship between actors and institutions, for example, often varies under one's strand of institutional theory.

Institutional approaches differ extensively by way of their conceptualisation of institutions, their level of analysis and subsequently their explanation of how institutions matter for international business. Indeed, the existence of multiple approaches underpin calls to 'untangle' the concept of institutions within the IB field (Aguilera & Grogaard, 2019). To further our understanding of how institutions matter for IB, it is imperative to be explicit about the institutional theories available (and in use) to further establish a transparent and credible link between 'institutions' and the IB phenomenon to be explained. Furthermore, becoming aware of the 'menu' of institutional approaches allows IB research to broaden its institutional intrigue with fresh theoretical perspectives (Hotho & Pedersen, 2012) and allow the appropiate anchoring of IB research to a specific strand of institutional theory. International business research utilises, but has further scope to draw on, three main approaches to institutions deriving from: 1) new institutional economic (NIE), 2) new organisational institutionalism, and 3) comparative capitalism (CC), each discussed in turn.

The dominant institutional approach in international business research, new institutional economics (NIE), is grounded firmly in microeconomics (Hodgson, 2007). The leitmotif of this work is a focus on the extent to which the institutional environment can guarantee private property and enforce contracts to reduce the 'transaction costs' associated with using market transactions (Coase, 1937; Williamson, 1975). To new institutional economists, institutions are the national level 'rules of the game' for society, which are human creations devised to shape societies interactions (North, 1991). While there is recognition of two strands of institutions, formal and informal, the application of NIE tends to concentrate on formal institutions, rules and regulations that affect the choice of governance arrangements through which economic activity is organised. From an IB perspective, institutions matter because the host countries formal and informal institutional framework influences the transaction costs and uncertainty faced by the MNE, in relation to how resources can be attained, how entry modes are chosen and decisions on the boundaries of the firm. From this perspective, strong institutions lower the transaction costs and the degree of uncertainty faced by firms (Meyer, 2001).

Given this, NIE approaches have provided a framework for understanding issues such as subsidiary roles/performance (Chan *et al*, 2008; Chan & Makino, 2008), entry mode strategies (i.e. Brouthers & Hennart, 2007; Peng *et al*, 2008), export performance (He & Brouthers, 2013) and the boundaries of the firm (Coase, 1937). This approach of institutional theory, alongside the resource-based and industry-based views have often collectively been refered to within IB as the 'strategic tripod'. The

institution-based view has traditionally emphasised the interactions between institutions and firms that result in specific strategic choices and performance (Peng, 2003; Romanello et al, 2022; Koch, 2022). The NIE strand has been central to answering the most fundemental questions confronting the IB field, namely what drives strategy in IB, and what determines the success and failure of firms around the world (Peng 2004)? Given the rise in the study of emerging markets, NIE now has strong foundations in the study of institutional change, adaptation and transition (Ado & Su, 2016; Nayyar & Prashantham, 2021; Hermes & Lehto, 2021).

In contrast, new organisational institutionalism focuses on organisational forms and practices rather than the national level 'rules of the game' (DiMaggio and Powell, 1983; 1991). Here, institutions are established ways of acting and transacting stemming from shared 'regulative, cognitive and normative frames' (Morgan & Kristensen, 2006 pg., 1470; Saqib et al, 2022). The sharing across organisations of common rules, traditions and norms provides the institutionalisation of organisation forms, ultimately because it provides reward. Conformity, or 'institutional isomorphism' (DiMaggio & Powell, 1983) increases institutional legitimacy, rents from resources and transactions that ultimately extends the survival of the institution (Meyer & Rowan, 1977). Consequently, this view provides a very deterministic approach, hence the growing interest of how 'institutional entrepreneurs' manipulate and influence institutional forms which defies isomorphic influences (Garud et al, 2007).

New organisational institutionalism suggests any variance between home and host institutional environments places pressures on MNEs to maintain institutional legitimacy (Kostova and Zaheer, 1999). The pressures to maintain internal and external legitimacy have provided explanation of entry mode decisions (Vora & Kostova, 2007; Davis *et al,* 2000) and location strategies of MNEs (Xu & Shenkar, 2002). By way of measurement of these institutions, institutional country profiles are built from Scott's (1995) regulative, normative and (cultural-) cognitive dimensions. These have often been used as the foundation for quantitative new organisational institutionalism based international business research (e.g. Urbano & Alvarez, 2014).

The third institutional approach is comparative capitalism (sometimes referred to as comparative institutionalism), regarded as a fruitful and emergent discourse originating from socioeconomics and political economy (Allen, 2004; Wood & Allen, 2020). In contrast to other approaches, comparative capitalism (CC) seeks to explain and describe diversity in the socioeconomic architecture of countries. From the NIE perspective for example, Germany, UK and Norway have similar institutions as measured by the convergence perspective of institutional effectiveness (e.g.

rule of law, private property rights). Conversely, the CC lens highlights significant differences in the political economic architecture of these three countries, the resources that are provided by their institutional configuration, and how their economic activities are organised and controlled. Formally, CC seeks to identify the large intrinsic diversity amongst capitalist countries, and it is these differences that provide a natural blueprint for understanding how institutions matter for international business. From this perspective, institutions matter because they provide unique resources, competencies and practice norms to firms. The specificity of the host institutional environment impacts the challenges that firms face when internationalising, transacting and establishing local linkages (Morgan, 2012). The build of institutional systems has also been studied to determine IB related outcomes such as innovation, comparative advantage (Witt & Jackson, 2016) and corporate governance (Aguilera & Jackson, 2003). The concept of institutional drift, first introduced by Streeck and Thelen (2005) and extended to the CC framework with Hall & Thelen (2009), has been used to frame the study of how and why multinational firms engage in patterns of institutional entrepreneurship (Becker-Ritterspach et al, 2017), the cross-national transfer of employment practices within multinational firms (Ferner et al, 2012), and the performance of business groups under state capitalism (Hu et al, 2019). Notwithstanding the attention of international business research to the effects of cross-country differences on the conduct of international firms, comparative capitalism approaches remain significantly underrepresented in the IB domain (Jackson & Deeg, 2008; Redding, 2005; Allen & Aldred, 2012).

Despite the underrepresentation, we maintain that comparative capitalism presents a fruitful institutional approach to the examination of international business. Comparative capitalism primarily focuses on the structures, forms, and functions of the production regime within political economies. This focuses the study of the IB-institution nexus towards that of ‘institutional configurations’ over that of isolated individual institutions. It offers IB a way of distilling a complex array of interdependent institutions into a cohesive framework of institutional context (Henisz & Swaminathan, 2008). Its uniqueness lies in its consideration of bundles of attributes in institutional domains, as opposed to the isolated effects of those attributes on firm activity, foreign direct investment, and internationalisation motives. This approach enables IB to move beyond the use of one-dimensional and unidirectional institutional variables, which tend to oversimplify institutional complexities and their diverse impact on specific business activities and decisions. This is closely related to how institutions are presently operationalised within empirical IB studies. Much rely on indices that measure the ‘strength’ or ‘quality’ of institutional dimensions, such as protection of intellectual property, political stability and economic openness, operationalised through the likes of the World Economic Forum, World Bank and Heritage Foundation.

We propose two issues with this operationalisation. Firstly, the construction of indices infers an optimal institutional dimension, numerically ranking a country by its 'high versus low' protection of intellectual property, political stability, and openness, for example. Consequently, these tend to overlook the innate variety of institutions, particularly between developed countries, yielding by construct that all 'good' institutions are those fashioned by a (construct manufactured) set of countries. This ignores the potential for functionally equivalent outcomes and equifinality in IB research. Secondly, the construction and implementation of these indices overlooks the combined effects of institutions, ignoring that the influence of institutions could be a result of their interdependence and interaction over their unidimensional effect. Should context matter for IB, then 'context of the context' (i.e. institutional dimension) must also be an important aspect for institutional applications in IB. It is the existence of institutional complementarities, a central feature of the CC approach, which can explain how and why differentiated institutional configurations are present, providing potential insights to the study of institutional efficiencies to firm performance and strategic choices.

Comparative capitalism approaches encourage the methodological approaches that allow IB to undertake 'thick' approaches within the conceptual and empirical implementation of institutions. We argue that the IB field needs to rethink its methodological approaches as a mechanism to capture diversity, interactions, and functional equivalence of institutions. As such we propose a focus on methods that capture the taxonomic institutional diversity of countries in terms of the varied dimensionality of institutions and their combined presence.

3. Data & Methodology: Institutional Systems as International Business Context

3.1 Institutional Approach

This paper empirically analyses institutional capitalist diversity, establishing institutional measures and cluster classifications to identify quantitative based comparative institutional diversity and present a new taxonomy of capitalist regimes. Applying the comparative capitalism 'Governance approach' as established by Amable (2003) and Boyer (1986), we quantify institutional diversity along four specific institutional spheres: Product markets, Financial Systems, Education System and Labour markets.

Despite the commonalities within the comparative capitalism literature, differences remain in terms of distinct methodological approaches, domains of analysis, and the geographic dispersion of capitalist arrangements. We capture three strands to the CC literature: (1) Varieties of Capitalism (VoC) (Hall & Soskice, 2001), (3) National Business Systems (NBS) (Whitley, 1999, 2007) and (3) Governance approaches (Amable, 2003). The diversity of literature is representative of the lack of agreements in the distinct types of capitalism, or indeed the approach to analytical strategies of comparative study (Jessop, 2014). This is inherent of the diverse array of institutional spheres utilised to illustrate capitalism frameworks, methodological ordering principles, or indeed the nature of 'crucial dimensions'. Combined, the varied plurality of literature approaches blends a potential for comparative analysis itself, suggesting varied expectations of firm action through the various views of institutional configuration and the nature of institutional change (Chang, 2007; Streeck and Thelen, 2005; Hall and Thelen, 2009). While the Varieties of Capitalism (VoC) and National Business System (NBS) approaches have largely dominated the comparative capitalism (CC) literature, we attempt to further rejuvenate the CC literature by reapplying the 'Governance' perspective, providing a novel approach for IB-CC cross-disciplinarity.

3.2 Methodological Approach

To achieve this, a two-pronged methodological approach is employed. Firstly, Principal Components Analysis (PCA) is applied to construct orthogonal institutional dimensions along Amable's (2003) four institutional spheres (Product markets, Financial Systems, Education System and Labour markets). Principal components are combinations of initial variables, thus synthetic variables, which sum the information contained in the original manifest variables. The use of PCA allows the measurement of the underlying structures of institutional dimensions with the creation of synthetic indicators. The objective is to obtain a representation of institutional variables to assess countries along the spectrum of a given institutional dimension. Country projections along the factorial planes will produce an objective assessment of diversity between countries. Secondly, hierarchical cluster analysis proceeds to act as our formal classification system, identifying how countries cluster along these dimensions.

Given the increasing interest in assessing distinct sets of institutional configurations, we initially considered employing fuzzy-set qualitative comparative analysis (fsQCA) as an alternative approach to PCA and hierarchical cluster analysis. However, we found that fsQCA was not suitable for our study for two reasons. One, there remains an extensive number of institutional measures in our dataset. With 42 manifest variables, applying fsQCA would result in a truth table with 2^{42} potential configurations, making it unmanageable as a classification tool. Conducting Principal

Components Analysis (PCA) on our manifest variables, revealed 13 components with eigenvalues greater than 1. Even with this reduced number of components, we would still end up with 8192 potential configurations, which remained too numerous. Additionally, further reducing the number of components to a manageable level would entail the elimination of meaningful factors, resulting in a significant loss of differentiating defining characteristics. We agree with Allen & Allen (2015) in that fsQCA is an appropriate research design approach in studies that are limited to a relatively small number of observations. Two, the calibration process in fsQCA involves assigning membership scores to variables, which is a subjective decision. The interpretation of the membership scores can vary among researchers, potentially leading to different outcomes and interpretations.

To effectively and objectively handle the diverse range of data, we utilised PCA and Hierarchical Cluster Analysis. These techniques allow us to process and analyse a wide array of institutional variations while preserving the integrity and distinctiveness of the defining characteristics within our dataset. By employing PCA, we are able to incorporate multiple indicators within principal components, resulting in enhanced dimensionality. By projecting countries onto factorial planes, we obtained a more objective assessment of the diversity between them. This approach provides a comprehensive view of the relationships and variations among countries, enabling us to identify patterns and understand their unique positions within the dataset. The utilisation of PCA and hierarchical cluster analysis not only ensures the effective handling of data diversity, but also facilitated a rigorous and robust analysis of institutional variations.

In particular, PCA has three key benefits over alternative approaches. Firstly, it allows researchers to understand the underlying structure of a set of variables. Which means secondly, large datasets can be reduced by observing ‘groupings’ of variables which assembles common variables into a descriptive category (component). Thirdly, PCA broadens the scope of data by overcoming missing data, allowing the inclusion of countries that would otherwise be ignored if the data coverage were initially weak (Witt & Redding, 2013). For enhancing IB-institutional research, single indicators provide a one-dimensional perspective, whereas the inclusion of numerous indicators, via PCA, adds multi-dimensionality to the measure of institutions, imperative when undertaking comparative analysis (Voigt, 2012). Hierarchical cluster analysis has been proposed as a suitable approach for examining the intricate and interconnected dimensions within countries. It serves as both a methodology and a fundamental tool for sense-making and conceptualisation of units (Ronen & Shenkar, 2013; Witt et al., 2017).

Overall, these methods allow us to appropriately explore the complexities of our dataset and derive meaningful insights. Through the incorporation of multiple indicators and the objective assessment of diversity between countries, we gained a more comprehensive understanding of the factors influencing institutional variations and their impact on the overall analysis.

3.3 Typologies & Taxonomies

In the application of our methods, we further reinforce the distinction between the terms 'typology' and 'taxonomy' within the field of IB, which are often used interchangeably but represent different approaches to classification, as discussed by Allen et al. (2022) & Bailey (1994). Our classification approach specifically focuses on the formation of taxonomies rather than typologies. There are two reasons for calling this distinction.

Firstly, our classification approach emphasises the creation of empirically constructed classifications, prioritising the categorisation of entities based on shared characteristics or attributes. As Bailey (1994) suggests, a taxonomy begins empirically, with the goal of classifying cases according to their measured similarity on observed variables, rather than relying on conceptual typological theorising. Whereas typologies are logically derived conceptual classification schemes, which may or may not build inductively on characteristic cases, taxonomies are classifications of empirical cases (Bailey, 1994; Hotho, 2014).

Secondly, we draw upon Weber's (1949) framework to highlight a key distinction in the classification of systems. Instead of using ideal types solely to conceptualise deviations from taxonomic systems, we estimate taxonomies to explore the extent to which we can empirically capture deviations from ideal monothetic typologies (e.g. Varieties of Capitalism or National Business Systems). This approach enables an assessment of the degree of alignment between the observed data and the ideal types, shedding light on the empirical variations that exist beyond theoretical constructs. In such, we are not directly assessing the theoretical & logical consistency, a preoccupation of typology classification approaches, but rather proposing for the extension of typologies.

3.4 Sample & Data Structure

For all our original variables, data was collected from the past five years and averaged to smooth any outliers. 5-year averaged data is a common trend in comparative political economy based quantitative research (e.g. Hall & Gingerich, 2009; Kenworthy, 2006; Avadagic & Salardi, 2013). The sample consists of 30 countries, all of which are members of the OECD. These countries

represent 86% of the total coverage of the OECD. This study utilises data from multiple databases that report information on different countries and over time. The sources include the OECD, WEF, and ICTWSS, covering areas of product markets, financial systems, education, and labour markets. Additional variable details can be found in Table A.1 of the Appendix. The selection of countries and the range of variables had to be carefully considered, and various databases were used to ensure comprehensive coverage.

4. Empirical Estimation

4.1 Principal Components Analysis

Along the four institutional spheres (Product Markets, Financial System, Labour Market & Education System), our Principal Components Analysis (PCA) provided 13 meaningful institutional components as developed from 42 manifest indicators. PCA was conducted separately for each institutional sphere, resulting in numerous uncorrelated components, which were then selected based on their relative Eigenvalue and Bartlett's Test for Sphericity. We then run Kaiser-Meyer-Olkin (KMO) measures of sampling adequacy to ensure that we select the components with highest sufficiency for analysis. All components were 'Varimax' rotated to facilitate interpretation (Abdi & Williams, 2010). The components and loadings are highlighted by Table 1 to 4 and discussed in following sections. Details of the manifest variables used can be found in Table A.1 of the Appendix**.**

4.1.1 Labour Markets

The structure of labour market institutions is important to many contemporary economic issues and firm-level decisions (Saqib et al, 2022). There are several dimensions to labour market institutions, of which this paper distinguishes three important areas defining their institutional diversity. Firstly, one can differentiate labour markets through employment policy, which characterises the extent to which countries are committed to intervening in labour markets. The second aspect of labour market institutions concerns the structure of employment protection. This accounts for flexibility over hiring and firing decisions versus the protection of labour promoting rigidity. Labour market flexibility has become a flagship structural adjustment policy (SAP), which involves the increasing use of temporary contracts, unrestricted dismissal rights, short notice periods and the shrinking use of regular contracts. Much work has been conducted around the effect of labour market flexibility, particularly in relation to its positive effects on high growth firms (Acs *et al*, 2008; Bassanini & Ernst, 2002) and foreign direct investment (e.g. Javorcik & Spatareanu, 2005). From a neoclassical

viewpoint, labour market flexibility increases the economy's ability to make short-term adjustments achieved through changes in the structural composition of sectors. Regulation of labour is therefore viewed as a block on dynamic adjustments, creating lower growth and higher unemployment (Hancke, 2013).

Thirdly, labour market institutions can be characterised by their system of wage bargaining and industrial relations. This assesses the degree to which there is existence of corporatism amongst the relationship between firms and workers, and to whether common wage moderation is possible. Industrial relations systems can be characterised along a spectrum of centralisation versus decentralised systems, with the latter often the hallmark of the 1980's liberal movements in the UK and USA, the so-called erosion of workers political influence through the decline of trade union powers (Brown & Walsh, 1991). Systems are often characterised as centralised when the wage bargaining process is coordinated among employees whereby trade unions, which have collective bargaining powers, set a uniform band of wages (Bassanini & Ernst, 2002). The type of industrial relations has often been considered crucial in relation to the macroeconomic performance of countries (i.e. Hancke, 2007; 2013). This provides some apriori guidance to the interpretation of components.

INSERT TABLE 1 HERE

Given the focus on these three characteristics of labour market institutions, principal components analysis was conducted separately to capture employment policy. This analysis involved 2 separate PCAs creating 3 components from 9 manifest variables, representing employment protection, industrial relations and employment policy respectively. The results of the labour market PCA's can be found in Table 1. The first component, relating to the employment protection dimension of labour markets denotes 'labour market flexibility'. With an eigenvalue of 1.616, indicators such as 'regulation on temporary employment' and 'protection of workers against individual dismissal' load highly together, therefore naturally representing the dichotomy between "flexible" and "rigid" labour markets (Larsen & Congregado, 2008). This component represents the intensity of restrictions on labour, both through the use of regular and temporary contracts, which are acknowledged as important aspects of labour market flexibility, the ease of use of temporary contracts, and the ease of dismissal (Berg, 2015; Darcillon, 2015).

The second component represents the 'wage bargaining system'. Single indicators of 'union density' and 'wage bargaining coordination' (positive pole) contrast with 'flexibility of wage determination'

(negative pole), with increasing component values symbolic of increasing levels of union density and wage centralisation and lower values along this axis depicting increasing decentralisation and wage-making flexibility, with wage setting determined at the firm level. Using this principal component, we can assess the level of centralised versus decentralisation of varied industrial relations institutions. The third component characterises the extent to which there is an active prevalence of labour market policy, with high public expenditures of a range of labour market areas on the positive pole. Therefore, we name this component as 'labour market policy', with higher component scores representing the extent to which countries are committed to intervening in domestic labour markets (as averaged over the past 5 years). Again, institutional diversity with respect to labour markets can be assessed by their component scores along the factorial planes as defined by the three components above.

4.1.2 Education System

The study of education systems allows a natural point of analysis for understanding knowledge accumulation and skill formation within countries. There is growing acceptance that knowledge accumulation leads to innovation and technological progress, leveraging economics growth where other factors of production remain constant (Grossman & Helpman, 1994; Romer, 1994). Despite this relationship, studies into the structure of educational systems remain limited.

INSERT TABLE 2 HERE

Principal Components Analysis derived 3 components from a total of 9 manifest indicators (see Table 2). The first component, with high loadings of expenditures on R&D and the percentage of tertiary educated labour represents ‘government support for research and formal education’. The structure of educational expenditures is, particularly in relation to R&D, a commonly used measure to gauge the depth of institutional educational support. The second component symbolises the institutionalised skill regime; high or low human asset specificity, general or specialised skill profiles. Again, this follows other studies in an attempt to measure the institutional support for vocational or general (tertiary) education. However, we provide a varied method of measurement through the use of PCA contrasting the common single indicator approach. Expenditures on secondary education and share of population with vocational secondary training (negative pole) contrast indicators of high share of population with general education and expenditures on primary education (positive pole). This suggests a spectrum from the institutionalisation of vocational (high asset specificity) training to the institutionalisation of general (low asset specificity) education. Our third component provides a unique institutional perspective highlighting the ‘absorption of

secondary educated labour'. High unemployment rates in labour with upper secondary and post-secondary education as their highest educational attainment (negative pole) contrasts indicators of 'share of population with upper secondary and post-secondary vocational training as highest attainment' and '% of labour force with secondary education as highest attainment level' (positive pole). Higher values would suggest lower unemployment in secondary educated labour and high levels of vocationally trained citizens. This dichotomy provides a perspective on the relative importance and absorption of secondary educated (vocational) labour into the industrial base of the economy and is an interesting indicator to assess the skill profile required by domestic labour markets. The composition of education systems can therefore be assessed by their factorial projection along these three components.

4.1.3 Financial System

Financial systems provide distinctive characteristics in the comparative institutional analysis of capitalist economies. Despite globalisation and the growing movement of financialisaton, financial systems still attain a sizeable degree of institutional variety, particularly in relation to their ability to provide capital. This diversity seems to have maintained itself in light of the liberalisation of many financial activities, growing interdependence between financial systems and the prevalence of capital in everyday activities (Lapavitsas & Powell, 2013; van der Zwan, 2014; Kornich & Hicks, 2015).

INSERT TABLE 3 HERE

Principal Components Analysis on 11 indicators derived 4 financial system components with Eigenvalues above 1, with results presented in Table 3. The first component can be understood as representing the 'availability of varied forms of capital' with high loadings of ease of access to loans (EOSL), availability of financial services (AVFS) to name two. This reflects the partial use of such indicators within the PCA work of Allen et al (2016). The second component can be seen to measure the 'concentration of the banking system', with increasing concentration of such system on the positive pole. This dimension has never been included in comparative institutional work hereby providing oversight to the composition of banking systems. The third component has stock market capitalisation, stock market total value trade to GDP, and pension fund assets to GDP on the positive side. This shows the relative importance of pension funds and stock markets, with the provision of capital and corporate control determined to a larger extent by market coordination. Therefore, following similar lines of various studies (Schneider & Paunescu, 2012; Schneider *et al*, 2010; Hall & Gingerich, 2009), we can describe this component as representing the 'type of financial system', that is whether the system is market or bank-based, centralised or decentralised.

The fourth component shows opposition between the H-statistic (negative pole) and Lerner Index (positive pole) which are widely used measures to assess the degree of competition/market power in the banking system. The higher the Lerner index illustrates increasing market power in the banking system and therefore transitioning towards a monopoly-based industry structure. In contrast, higher scores of the H-statistic demonstrate increasing competition, hereby moving more towards perfect competition market structures. The inverse loading of these two similar indicators suggests, by definition, that the component represents the 'competition of the banking system'. How countries differ with respect to financial system institutions can be assessed by their component projections on the four planes defined by the principal components above.

4.1.4 Product Markets

Product markets are a key focal point when observing the diversity amongst political economies. Open liberal product markets leave firms more susceptible to market pressures, and thus the potential adversity of demand and supply shocks that are primarily absorbed via a change in prices (Amable, 2016). The most fundamental dimension separating the heterogeneity of product markets is that of the intensity of competition, which is a natural by-product of the erosion of 'blanket' regulation. The configuration of the varieties of product markets can therefore primarily be based on the according type of competition prevailing within such market. However, given intensity of competition remains the key defining dimension of market heterogeneity, the latency of such dimension leads to the difficulty in measurement through the use of simple indicators. We overcome this through varied steps.

Firstly, given we are largely concerned with national institutional variance, the measurement of product market variety can be born from a concentrated look at the aggregate level as opposed to disaggregate, industry levels. It is only possible to find data on competition within a few sectors, usually in the form of concentration indices, an established perspective when observing banking and financial system competition. Secondly, while the state of competition characterises the product market structure well, it fails to represent the underlying institutional foundation. Put differently, competition can be characterised as an 'output' variable, whereas we are primarily concerned in understanding the 'input' (institutional) variables, which in this case would be the determinants of competition. In short, institutional perspectives need to provide a lens that leads to such 'symptoms' as competition. Therefore, a wide collection of product market regulation (PMR) indicators has been chosen to underpin product market variance. These indicators, when subjected to PCA, provide a good perspective to assess the composition and structure of product market competition,

and therefore the diversity within and between such markets. Consequently, this provides an institutional perspective defining the state of product market competition.

INSERT TABLE 4 HERE

The results of the product market PCA's can be found in Table 4. PCA yields 3 components from 13 indicators taken from the OECD's product market regulation (PMR) database (see Koske et al, 2015). Given the intricacies and specificities of product market regulation data, three separate PCAs were undertaken to improve the interpretation of outputs as suggested by Nicoletti & Scarpetta (2005). With high loadings of specific governance-based indicators, we label our first component 'governance of internal product markets'. This component seemingly represents an axis of increasing regulatory and governance led pressure on domestic product markets, one can consider that countries with intense product market competition will situate themselves low (left hand side) on this axis. The second component is composed of variables representing public and government led involvement in the product market functioning. Scope of state-owned enterprises, government control over enterprises and prevalence of government led price controls load suggestively high with one another. This axis represents the control exerted by the public sector (via government intervention); this component is labelled 'public involvement in domestic product markets'. Our third component focuses on explicit protection against foreign competition, with high loadings of barriers to trade, FDI and trade facilitation. Being concerned with the treatment of foreign trade and capital inflows, this component is labelled 'explicit protection of foreign competition'. Components 1 and 2 represent inward protection measures and component 3 represents external based protection.

4.2 Hierarchical Cluster Analysis

In order the classify countries along each of the institutional components, this paper uses the Anderson-Rubin method to produce standardised composite component scores for each country. This 'marks' each country along the plane of a given institutional components. It is the variance along each of the 13 components that provides the basis for comparing countries with one another and allows taxonomies to be created through analysing the variance within and between countries institutional projections. Objective classifications of countries are established using hierarchically ascending classification techniques (hierarchical cluster analysis). The rationale behind hierarchical cluster analysis is to group similar countries as measured by their Anderson-Rubin factor scores along each component. As such, hierarchical cluster analysis is performed based on our previous PCA. This allows the study to capture institutional diversity amongst the country sample by

assessing institutional similarities and dissimilarities simultaneously. Specifically, this study takes the interval mode of Squared Euclidean distance; dissimilarity is defined as the Euclidean metric between N cases. We further estimate through the 'Ward's Method', a step-by-step aggregation of countries by cluster as so the intra-cluster inertia has minimal variance.

5. Empirical Findings: A New Contextual Blueprint

The outcomes of the hierarchical cluster analysis are depicted in Figure 1 and summarized in Table 5. Figure 1 shows the resultant clusters through the use of a dendrogram. Table 5 illustrates these clusters with Table 6 presenting the Squared Euclidean dissimilarity matrix, or providing what is known within IB as 'institutional distances' (Jackson & Deeg, 2008). Figure 1 provides a useful tool to assess potential cluster memberships where increasing dissimilarity of clusters (Y-Axis) provides natural 'splits' between countries and clusters. To establish capitalist typologies, we take account of the 'optimal' number of clusters through the Elbow Method (Zhao, 2012).

INSERT FIGURE 1 AND TABLE 5 & 6 HERE

5.1 Four Modes and Nine Intra-Modes of Capitalism

When applying Ward's Method hierarchical cluster analysis, 9 clusters emerge from the sample of 30 countries (Table 5). The results show wide variance of cluster classification, representative of the present capitalist institutional diversity posed by the current landscape of political economies. Whilst some country clusters echo the standard dichotomy of liberal market economies (LMEs) versus coordinated market economies (CMEs), various interesting cases prevail, particularly in relation to the inclusion of countries that had largely been ignored in previous studies.

Most interestingly, the results show two varied 'tiers of diversity', that display 'clusters within clusters', or 'diversities within diversity'. Firstly, there is diversity amongst countries in terms of their coordination mechanism, and secondly, diversity within each mechanism of coordination. The former can be argued to depict the ‘mode of capitalism’, and the latter displaying the ‘intra-variant of capitalism’.

First, we identify 4 higher order divisions/clusters of countries to which we describe as representing the varied coordination mechanisms within capitalist regimes, that is, how actors are coordinated, and informational problems are overcome (Hall & Soskice, 2001). These include market-based coordination (hereafter market-based capitalism), coordination-based capitalism (based on strategic

coordination) and two variants of state-led coordination, which highlight two varying degrees of statist influence. Through observation of the dendrogram (see Figure 1), these are represented by 'long isolated branches', namely high scores of rescaled Ward's distance scores and thus cluster dissimilarity. The first (coordinated capitalism) can be identified from Austria to Denmark, with the market-based capitalist regimes starting from Estonia to USA. Furthermore, of the two variants of state-led coordination regimes, the first starts from France to Ireland and the rest thereafter. As such, we describe this tier of comparative assessment as representing the 'inter-variance' between capitalism(s) as it embodies the diversity of coordination regimes between countries. Therefore, we have ‘diversities of the mode of capitalism'; market, strategically coordinated, or state-led regimes.

Yet within each 'mode of capitalism', diversity remains. In fact, further divisions of countries emerge within each coordination regime to what can be understood to represent 'intra-variance of capitalism'. Not all countries within a given mode of capitalism are the same, displaying unique internal variance inside each coordination regime. For example, within market-based capitalism, large variances still remain between clusters based on the composition of their financial system.. Of the intra-variance tier of comparative analysis, 9 clusters emerge. Specifically, 3 variants of market-based capitalism, 2 variants of coordination-based capitalism, 2 variants of peripheral (state-led) capitalism, and 2 variants of developmentalist (state-led) capitalism.

In sum, two *tiers* of institutionalist diversity can be highlighted: 1) the ‘mode of capitalism’, and 2) ‘intra-variance of capitalism’. Consequently, our results highlight nine novel variants of capitalism. The specific characteristics of each mode of capitalism and their respective variants are discussed below.

5.2 Institutional Cluster Configurations

5.2.1 Market Based Coordination: Neo-Liberal, Emergent Market and Asian Capitalism

Overall, market-based capitalism is based on traded relations, defined by a liberal agenda towards the allocation of actors via competitive relations. This is akin to the liberal market economies (LMEs) as characterised by the seminal work of Hall & Soskice (2001) and validated by Witt et al (2017). Our results show that these institutional configurations are characterised by decentralised wage bargaining, high labour flexibility, and low labour market spending. Furthermore, the education systems institutionalise general skill profiles and hereby attain weak asset specificities, coupled with weak governance measures for domestic product markets. Financial systems are generally competitive in structure, and Governments provide limited support formal education and

research. However, as 3 clusters emerge within such market-based systems, internal diversity subtly remains in terms of three sub-variants labelled neo-liberal, emergent market, and Asian capitalism.

The neo-liberal capitalist variant is the most extreme version of market-based capitalism signifying pure forms of individualist and liberal ideologies. Unsurprisingly, this cluster is represented by the USA, UK, Canada and Australia. Whilst still embodying the characteristics above, heterogeneity within this cluster is driven by a reliance on their financial systems, driven by a relatively high degree of pension funds and stock market activity that underpins the allocation of (short-term) capital. These systems can thus be characterised as portfolio orientated systems (Berglof, 1997), outsider systems (Franks & Mayer, 1997) and ultimately market-based financial systems.

Emergent market-based capitalists, as represented by Estonia and New Zealand, display similar structural patterns as neo-liberals, especially in terms of the system of industrial relations and employment protection. This could be seen to symbolise countries in transition towards pure neo-liberals. There is growing acknowledgment that Estonia has undertaken a transitional path symbolised by marketisation and liberalisation, a concerted attempt to emulate the institutional architecture of the UK and USA (Feldmann, 2006; 2013). Again, heterogeneity remains in relation to the financial systems. Whereas neo-liberal financial systems are based on short-term market capital, our results suggest emergent liberals pose a financial system based on patient capital and insider 'bank' relationships. This may represent the underdevelopment of capital markets in such economies and the high concentration of banks relative to neo-liberal models. Furthermore, emergent liberal Governments provide less public support for research and formal education.

The Asian market capitalism sub-variant represents South Korea and Japan. Asian market capitalism is characterised by a similar financial system architecture to neo-liberal capitalism with short-termism market-based behaviours and relatively low level of concentration within the banking system. However, higher levels of external orientated regulation on product markets, barriers to trade and FDI vis-à-vis those of neo-liberal and emergent market clusters are observed. Moreover, Asian market capitalists tend to provide more Government support for research and formal education whilst still prevailing with the institutionalisation of general skill profiles.

5.2.2 Coordination Based Capitalism: the Scandinavian and the Continental Variant

Coordinated markets, in contrast to market-based capitalist countries, involve non-market relationships and collaborative strategic interactions among firms and other actors. This aligns with the coordinated market economy (CMEs) classification of Hall & Soskice (2001), where institutions are designed to reduce uncertainty and facilitate coordination. A key institution supporting this

coordination is the labour market, characterised by corporatism and unionisation. Centralised industrial relations systems, alongside relatively inflexible labour markets, contribute to wage moderation and nurture the industrial base of these countries. Moreover, high human skill asset specificity is institutionalised through on-the-job and vocational training, facilitated by a bank-based financial system that provides patient, long-term capital. Domestic product markets in these systems are deregulated and free from government interference. Our findings indicate two variants of coordination-based systems: the Continental model and the Scandinavian model. While both models share the institutional logic of strategic coordination, they exhibit subtle variations.

The Scandinavian variant, as named from the fact it represents Denmark, Sweden and Norway. Whilst consistent with the traditional characteristics above, they also display significant variety from its neighbouring cluster on the basis of its banking system market power. Whilst both financial systems are based around an 'insider system', our results suggest that the Scandinavian model of the banking system is far less competitive as measured by our principal component (Financial System - Component 4, Table 3). There is significantly higher market power within the system, suggesting the nearness towards a monopoly-based banking structure. This contrasts the Continental variant, again named after the geographic location of the member countries, which is symbolised by high levels of competition, nearing a perfect competition structure.

5.2.3 Peripheral Capitalism: Franco-Lux and EMU peripherals

Peripheral capitalism, comprising of two variants, is largely defined by the degree of state influence. Where market and strategic coordination underpin the allocation of actors in former cases, it is the state that overcomes weak institutional calibration by providing the correction of coordination failures. Such state activity is therefore a process of non-market coordination displayed by the course of large state dependence (Molina & Rhodes, 2007). The mixed, state and market interaction is the dominant form of coordination, with a higher impact of regulation and state mediation, which has been argued to perpetuate long-term inefficient equilibriums given the outcome of coordination between freely contracting actors will prove extremely difficult to build (Crouch, 2005; Molina & Rhodes, 2007).

State activity is dominant within domestic product markets. Our results suggest that product markets within this mode of capitalism are defined by high levels of governance measures and public involvement as expressed by our principal components. These countries are also characterised by low external protection against foreign investment, perhaps emblematic of the membership of the European Single Market. There remains very high levels of labour protection

hereby acknowledged as rigid markets, coupled with intermediate forms of wage-bargaining throughout each intra-variant of capitalism, resulting in significant repercussions for the competitiveness and shock absorption within such countries (Hancke & Herrmann, 2007). Intermediate forms of active labour market policy and the institutionalisation of high asset skill specificity are complemented by a 'patient capital' bank based financial system. But again, multiplicity remains between our two intra-variants.

Franco-Lux, named from the inclusion of France and Luxembourg, is characterised by higher average spending on R&D and formal education verus the EMU-peripheral model, alongside relatively higher rates of secondary educated labour absorbtion. Our EMU variant, labelled from the commonalities between countries, is symbolised by extremely low levels of secondary educated absorbtion, argubaly led by the significant fall in aggregate derived demand within each economy (Rhodes, 2014). Low levels of capital availability contrasts high degrees of capital provision within the Franco-Lux model, feasibly representative of the collapse in the financial systems as buttressed by the present dsyfunctional nature of the Eurozone (Nolke, 2016).

5.2.4 Developmentalist Capitalism: the South American and the Eastern European Variant

Similar to the peripheral mode of capitalism, the dominant form of coordination in developing countries is a mixed interaction between the state and the market, given the weak coherence of institutions (Kenworthy, 2006; Hall & Gingerich, 2004). We refer to this cluster as developmentalist capitalism, reflecting the nurturing role of state influences in these countries. Despite variations, the South American and Eastern European variants share common institutional logics. Labour markets in these clusters exhibit high levels of labour protection, decentralised industrial relations systems, and limited labour market policies. Underdeveloped financial systems are characterised by low concentration, competition, and capital availability, particularly in Central and Eastern European states (Nolke & Vliegenthart, 2009; Lane & Myant, 2007). Additionally, these clusters show high absorption of secondary educated labour, low levels of R&D/formal education funding, and high product market governance measures, aligning with historical developmentalist trajectories (Deeg & Jackson, 2015; Pelkmans, 2010).

There are notable differences between the South American and Eastern European variants. The South American model emphasises the institutionalisation of general skill profiles (weak asset specificity), while the Eastern European model focuses on high skill asset specificity. Moreover, the

Eastern European model, with low external product market protection, is conducive to the development of industrial legacies (Mykhnenko, 2007).

6. Discussion and Conclusion

In response to calls for investigating institutional approaches in IB and understanding their diverse influence on global firms (Aguilera & Grogaard, 2019), this paper presents an empirically driven taxonomy of capitalist institutional diversity and provides an applicable framework for international business research. Specifically, the paper identifies: 1) the extent to which capitalist institutional diversity exists, and 2) how these diversities are manifested through proposing four clusters with distinct modes of capitalism as well as identifying intra-cluster differences to propose nine varieties of capitalism. Accordingly, we have split our discussion into two strands: firstly, discussing the contributions to the comparative institutionalism literature and, second, outlining implications for international business research.

6.1 Contributions to Political Economy and Comparative Capitalism Literature

The results presented in this paper enhance the post-VoC narrative urged by several scholars (Beiling, 2014; Hancke, 2009; Witt et al, 2017), through highlighting varied 'tiers of capitalist diversity'. Our results find that from the 13 principal components developed, 4 clusters of 'inter-variance' of capitalism (the coordination mode) and 9 'intra-variants' of capitalism are present. Indeed, given the dominant theme within the comparative capitalism literature is to emphasise varied modes of coordination (Hall & Soskice, 2001, Crouch, 2005) rather than the rich intra-diversity within them, the paper makes a clear contribution by extending the extant literature to consider this.

Echoing earlier studies, our results present evidence of more than two empirical types of capitalism (i.e. Amable, 2003; Witt et al, 2017; Schneider & Paunescu, 2012). Reflected in our findings, we concur with the qualitative assessment put forth by Hall and Soskice (2003), showing a distinct dichotomy between liberal market economies (LMEs) and coordinated market economies (CMEs). Nonetheless, we find convincing internal variance within each coordination mode of capitalism that provides 'institutional' logics contrasting atypical LME-CME complementarity architectures. For example, internal variance within the market-based coordination mechanism is chiefly dictated by diversities between financial systems. While our neo-liberal cluster (UK, USA, Canada, Australia) provides the predicted 'short-term' capital akin to the LMEs theory, our emergent liberal model and to a lesser the Asian model is characterised by more 'patient-led capital' systems analogous to the

CME theory. However, the clustering of institutions indicates that the VoC LME-CME dichotomy is still meaningful, albeit limited to a number of economies and not as an exclusive capitalist diversity framework for institutional based research.

In addition, we establish additional institutional measures and demonstrate their use. Much empirical focus of the comparative capitalism literature has been made around the use of single indicators to measure underlying institutional structures. This provides an estimate of a given institution, especially given the perceived latency of such institutional logics. Our PCA and hierarchical cluster analysis however provides a 'thicker' analytical approach with added dimensionality. Furthermore, we provide principal components for the education system; given the importance of skill formation and education systems within political economies (Busemeyer, 2009), it is surprising that many studies measures this solely by the 'portion of graduates from University versus those in occupational training'. The depth of institutional measurement is a weakness in previous studies, with this paper contributing to the quantitative rigour of the literature. As such, we portray institutional configurations with a richer and purer objective foundation, with scope to lend to more socioeconomic considerations of income inequality, social inclusion and political preferences, such as in the work of Wood & Allen (2020). Our approach, centred on institutional configurations, offers a unique perspective for understanding the variations in economic activity and performance across countries. By employing this approach, we have the opportunity to generate valuable societal insights that can inform public policies seeking to understand and adapt the institutional framework of nations and promote socioeconomic progress.

6.2 Implications for International Business Research

Whilst institutions matter for international business, how they matter is a contested area. It could be argued that how they matter ultimately depends on how the international business (IB) scholars define institutions. Given the plurality of institutional approaches, IB has the propensity to adopt a ‘narrow’ definition of institutions (Allen & Aldred, 2012), tending to favour New Institutional Economics (NIE) approaches. At the literature level, this paper contributes to the theoretical understanding of how context can be derived and applied in IB by providing a broader understanding of institutions and a wider range of available institutional approaches. By considering these aspects together, the paper offers, at a minimum, valuable insights into the role of institutional theory and context in IB research.

Neglecting broader definitions and approaches to institutional research has led the international business literature to concentrate on the standard 'formal & informal' convergent framework of institutions, accompanied by a belief that there is an optimal set of institutions; all countries should

converge and ‘monocrop’ the 'best' institutions (Rodrik, 2008; Aguilera & Grogaard, 2019). Therefore, taking a broader conception of institutions provides a contrast to 'convergent' based views; institutions are divergent creations and there is ‘not-one-best-way’. Indeed, we argue that international business literature requires an analytical focus on the ways in which institutional diversity can impact firms naturally operating within varied political economies (Jackson & Deeg, 2008; Morgan, 2012; Allen & Aldred, 2012). The disciplines of political economy and comparative capitalism provide a fertile ground for the cross-disciplinary approach to the treatment of institutions within international business. If the configurations of institutions 'matter' for numerous sub-domains of international business scholarship, then clearly a quantitative blueprint to assess institutional diversity remains central to the momentum of such 'institutional turn'.

In this fashion, we lend support to the view that IB research requires a shift from ‘thin’ to ‘thick’ institutional approaches. For us, ‘thin’ approaches to institutions reflect unidimensional, one-directional and singular variable-based perspectives, where firms are seen as unitary actors see institutions as structures that either enable or constrain. From a methodological lens, ‘thin’ approaches neglect the broader view of institutions as configurations, overlooking the interactions and complementarity sets which may influence the firm performance and strategic choices of firms. A ‘thick’ approach is one that promotes the conceptualisation of institutions that capture their innate diversity, complexity and interactions of institutions. As demonstrated from our approach, institutions are configurations of interacting and complementarity sets, opening up broader theoretical insights and methodological implementation in IB studies. No single institutional characteristic is sufficient to explain outcomes. Instead, IB outcomes therefore result from the combinations of prevailing socio-economic conditions. Therefore, research into such questions of institutionally induced equifinality can offer a novel approach to investigating the link between institutions and IB, as called for by Allen et al (2022).

As such, through our empirical and analytical design, we have contributed a taxonomic blueprint that can expand the range of theorising and analytical frameworks for IB, transending beyond ‘thinner’ institutional approaches. As Allen et al (2022) argue, it is important that IB opens up to analytical models based on complex causation, which in turn underpin different *types* of explanatory tools and how this variation impacts those of the interests of the IB domain. We contribute to these calls by allowing taxonomies that promote the inclusion of more configurations of institutional dimensions. We promote the analysis of complex IB phenomenom through different combinations of components which may be more important than any single component. In turn, our taxonomic blueprint frames an approach of how different arrangements could combine in varying

ways, and how the same outcome can be reached by varied routes. In line with Hotho's (2014) perspective, our study goes beyond traditional IB typologies to construct a robust taxonomy. While typologies focus on conceptual categorisations, taxonomies offer a valuable tool for exploring and evaluating the empirical applicability of existing types. By constructing taxonomies, we provide a means to assess the extent to which established typologies can be empirically specified. This process not only facilitates the identification of new types but also stimulates the conceptual refinement of explanatory IB typologies.

By responding to calls from, for example, Jackon & Deeg (2008), Aguilera & Grogaard (2019) & Allen & Allred (2012), this paper offers a natural framework to extend institutional approaches in international business research with the concentration of institutional diversity theorised to shape the behaviour of firms. The inclusion of a wider set of institutions coupled with our taxonomic capitalist framework that specifies objective diversity of institutional configurations arguably lends to a 'thicker' explanation of how institutional variance can impact the activities and conduct of firms (Aguilera & Grogaard, 2019). Specifically, the new insights outlined in this paper allows international business scholars to pay closer attention to the interactions within the institutional context from which firms operate (Allen, 2004; Lange 2009; Amable, 2003). This can be achieved in several ways. For example, our proximity matrix provides a natural focus on the 'institutional distance' between countries and clusters. Much IB work on cross-national differences and country distance has been influenced by cultural value theory, stressing underlying differences in cultural values that impact firm behaviour. Specifically, it is argued that the cultural distance between home and host countries is important for MNE's entry mode decisions and broader decisions of internationalisation (Brouthers 2002; Meyer, 2001; Brouthers & Hennart, 2007). Beyond the concept of distance as defined by cultural variance, cross-country differences can be measured in terms of the institutional diversity between political economies. This study allows international business scholars to measure 'institutional distance' by the single proximity score between either specific countries or clusters. Cluster analysis serves as a valuable tool for classification; however, value of the identified clusters becomes evident when considering their causal effects on an outcome. To assess the broader predictive capacity of the framework, authors can explore the use of fuzzy-set Qualitative Comparative Analysis (fsQCA), drawing inspiration from Hotho's (2014) approach, for example. QCA is a set-theoretic approach that utilises Boolean logic to identify necessary and sufficient conditions for an outcome (Ragin, 2008). While QCA is still a relatively new technique, it has increasingly been employed in the analysis of predetermined institutional regimes and their associated outcomes (e.g. Schneider et al, 2010; Allen & Aldred, 2012; Pajunen, 2008; Allen & Allen, 2015). By incorporating QCA, authors can further enhance their

understanding of the relationships between our identified taxonomies and impacts, allowing for a more comprehensive examination of the taxonomies predictive power.

Beyond the use of linear-based analysis of institutional dissimilarity, our study provides a framework to highlight and assess the possible importance of combinations of institutions. International business has often discussed cross-national diversity either by the terms of 'economic development' (e.g. developed versus emerging economies), or by the relative distance (particularly culture) between sets of countries (Jackson & Deeg, 2008) rather than institutions as particular configurations or theoretically informed typologies (Allen et al, 2022). Therefore, how institutions matter can be determined by which 'set' of institutions exist in each context rather than the effectiveness of a given institution. This provides substantial scope for future institutional based international business research, where institutional frameworks provide the natural context to the country 'duality' posed to MNEs (Morgan, 2012; Becker-Ritterspach et al, 2022). For example, do MNEs from our neo-liberal capitalist cluster find it relatively easier to adapt in other market-based capitalist modes? Do capitalist regimes characterised by low product market regulations tend to encourage relatively more market-seeking FDI than non-equity entry modes? Do countries with high human asset specificity tend to encourage more strategic led investments relative to low skill asset specificity countries? Accordingly, our conceptualisation provides ample scope to theorise institutions at different levels and develop a coherent understanding of how institutional diversity (not just institutional convergence) influences various aspects of the international business domain.

More, although national institutions tend to change slowly over time, research has demonstrated that institutional change does occur (Streeck & Thelen, 2005). Consequently, older classifications can become outdated as the institutional system evolves, often due to external factors (Hotho, 2014). This study extends upon the already established configurational understanding of institutions used in IB (e.g. Witt & Jackson, 2016; Witt et al, 2017; Schneider & Paunescu, 2012; Hall & Soskice, 2001), refining and expanding to introduce fresh insights, alternative theoretical perspective and 'thicker' methodological approaches. Afterall, such a taxonomical approach can contribute to the conceptual refinement of existing configurations and classifications, whilst usefully complementing qualitative and typology-led analysis (Hotho, 2014). Given the dynamic nature of global economies, it is necessary to revisit and update snapshot taxonomies and typologies. While the results of this study do not render key "older" frameworks obsolete, they do highlight the nuanced and diverse nature of certain political economies, lending to novel insight for emerging IB research.

Overall, we believe further embedding CC perspectives in IB offer a unique set of perspectives for the study of institutional effects, reform, and internationalisation of firms across varied contexts. This allows IB to go beyond a simple assertion that institutions ‘matter’ for firm performance and strategic choices, opening to questions of how and why configurations of institutions may matter.

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Table 1 – Labour Market Principal Components Analysis Results

	Component		
Labour Markets	**(1) 'Labour Market Flexibility'**	**(2) 'Wage Bargaining System'**	**(3) 'Labour Market Policy'**
Protection of Workers against Collective Dismissal	.847		
Protection of Workers against Individual Dismissal	.846		
Regulation on Temporary Employment	.836		
Union Density		.869	
Wage Coordination		.855	
Flexibility of Wage Determination		-.842	
Public Expen. on Public Employment Services			.852
Public Expen. on Training			.780
Public Expen. on Sheltered & Supported Employment			.762
Eigenvalue	1.616	3.101	2.354
Variance Explained (%)	78%		47%
KMO	.758		.586
*Bartlett's Test of Sphericity^* (x^2)	0.000***		0.000***

Source: Table by authors. ^p<0.001***. Rotation Method: Orthogonal Varimax

Table 2 – Education System Principal Components Analysis Results

	Component		
Education System	**(1) 'Govt. Support for Research & Formal Education'**	**(2) 'Institutionalised Skill Regime'**	**(3) 'Absorption of Secondary Educated Labour'**
Gross Domestic Expenditure on R&D	.921		
Publicly Financed R&D	.916		
% of Labour Force with Tertiary Level as Highest Level of Education	.629		
Expenditure on Primary Education as % of Govt Expenditure on Education		.884	
Expenditure on Secondary Education as % of Govt Expenditure on Education		-.807	
Share of Population by Education Attainment - Upper Secondary & Post-Secondary Non-Tertiary - General Education		.690	
Share of Population by Education Attainment - Upper Secondary & Post-Secondary Non-tertiary - Vocational Training		-.445	.776
% of Labour Force with Secondary Education as Highest Level of Education			.880
Unemployment Rates by Education Attainment - Upper Secondary & Post-Secondary Non-Tertiary Education			-.577
Eigenvalue	3.081	2.207	1.212
Variance Explained (%)	72%		
KMO	.576		
Bartlett's Test of Sphericity^ (x^2)	0.000***		

Source: Table by authors. ^p<0.001***. Rotation Method: Orthogonal Varimax

Table 3 – Financial System Principal Components Analysis Results

	Component			
Financial System	**(1) 'Availability of Varied Forms of Capital'**	**(2) 'Concentration of Banking System'**	**(3) 'Type of Financial System'**	**(4) 'Competition in Banking System'**
Ease of Access to Loans	.961			
Availability of Financial Services	.877		.330	
Venture Capital Availability	.896			
Financing Through Local Equity Market	.838		.349	
Five Bank Concentration		.958		
Bank Concentration		.951		
Pension Fund Assets to GDP			.811	
Stock Market Capitalisation	.482		.724	
Stock Market Total Value Traded to GDP			.780	
H-Statistic				-.901
Lerner Index		-.521		.554
Eigenvalue	4.565	2.462	1.252	1.027
Variance Explained (%)	84%			
KMO	.756			
Bartlett's Test of Sphericity^ (x^2)	0.000***			

Source: Table by authors. ^p<0.001***. Rotation Method: Orthogonal Varimax

Table 4 – Product Markets Principal Components Analysis Results

	Component			
Product Markets	**(1) 'Governance of Internal Product Market'**	**(2) 'Public Involvement in Domestic Product Market'**	**(3) 'Explicit Protection against Foreign Competition'**	
Administration Burden for Corporations	.855			
Administration Burden for Sole Proprietor Firms	.835			
Communication and Simplification of Rule & Regulations	.703			
Barriers in Network Sector	.682			
Legal Barriers to Entry	.411			
Scope of State Owned Enterprises (SOEs)		.869		
Government Involvement in Network Sector		.667		
Government Control over Enterprises		.647		
Government use of Price Controls		.577		
Government use of Command & Control Regulations		.477		
Barriers to FDI			.702	
Barriers to Trade (Tariff Barriers)			.851	
Barriers to Trade Facilitation			.712	
Eigenvalue	2.786	2.284	1.724	
Variance Explained (%)	35%	38%	57%	
KMO	.603	.610	.573	
Bartlett's Test of Sphericity^ (x^2)	0.000***	0.000***	0.000***	

Source: Table by authors. ^p<0.001***. Rotation Method: Orthogonal Varimax

Table 1: Cluster Classifications

Tier	**Cluster**	**Country**
Mode of Capitalism:	***Market Based Capitalism***	
Intra-Mode of Capitalism:	Neo Liberal Market	United States
		Great Britain
		Canada
		Australia
	Emergent Market	Estonia
		New Zealand
	Asian Market	South Korea
		Japan
Mode of Capitalism:	***Coordination Based Capitalism***	
Intra-Mode of Capitalism:	Scandinavian	Denmark
		Sweden
		Norway
	Continental	Austria
		Belgium
		Switzerland
		Germany
		Netherlands
		Finland
Mode of Capitalism:	***Peripheral Capitalism***	
Intra-Mode of Capitalism*:*	Franco-Lux	Luxembourg
		France
	EMU Peripherals	Spain
		Portugal
		Ireland
Mode of Capitalism:	***Developmental Capitalism***	
Intra-Mode of Capitalism:	South American	Chile
		Mexico
	Eastern Europe	Hungary
		Slovakia
		Czech Republic
		Poland
		Slovenia
		Italy

Source: Table by authors.

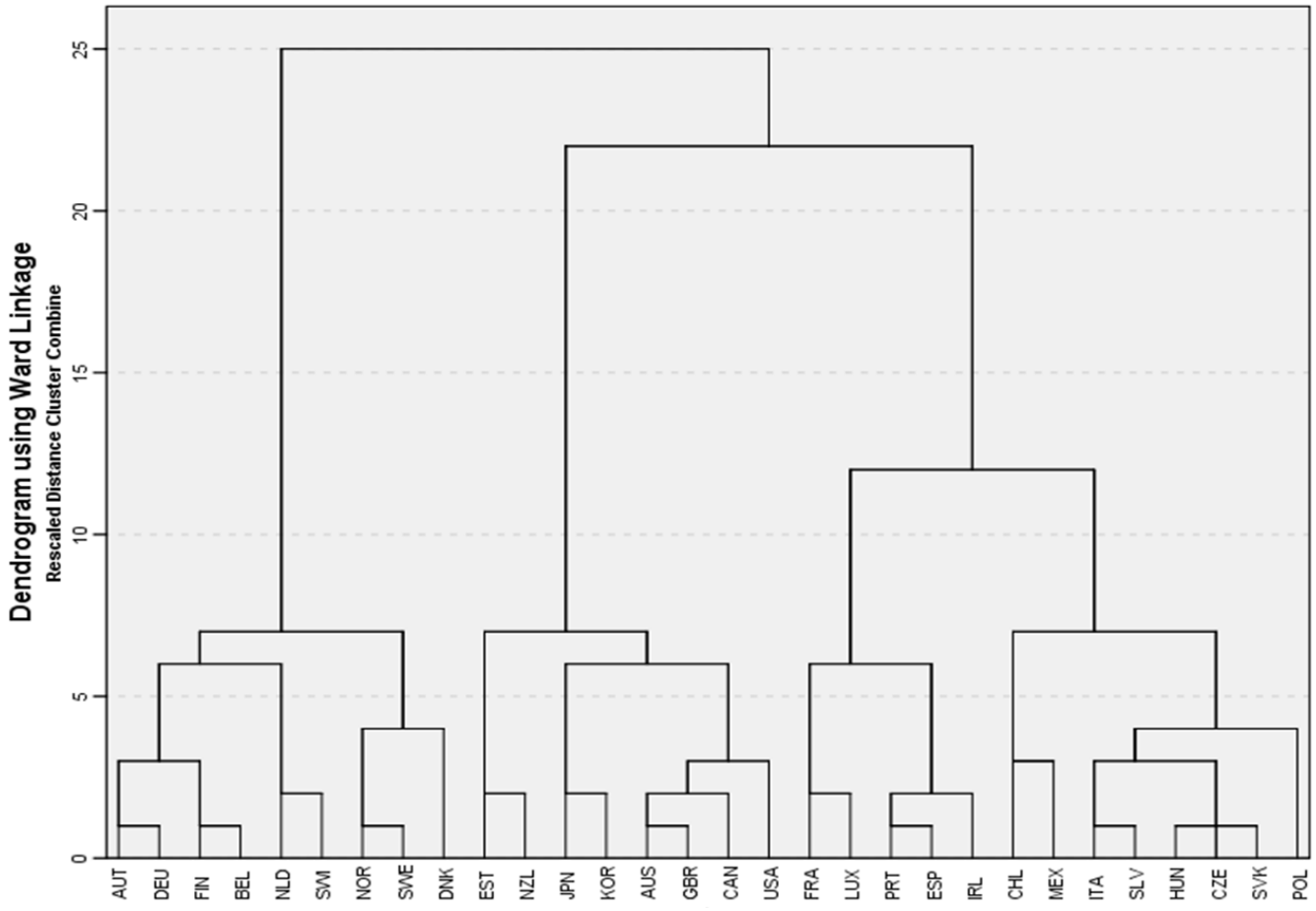

Figure 1: Dendrogram

Source: Figure by authors

Table 2: Proximity Matrix

Proximity Matrix																														
	Squared Euclidean Distance																													
Case	5:FIN	6:NLD	7:BEL	8:SWI	9:AUT	10:DEU	11:FRA	12:LUX	13:PRT	14:ESP	15:IRL	16:CHL	17:MEX	18:ITA	19:SLV	20:SVK	21:POL	22:HUN	23:CZE	24:EST	25:NZL	26:AUS	27:USA	28:CAN	29:GBR	30:JPN	31:KOR	32:DNK	33:NOR	34:SWE
5:FIN	0.000																													
6:NLD	12.380	0.000																												
7:BEL	7.443	9.881	0.000																											
8:SWI	21.859	10.940	20.414	0.000																										
9:AUT	14.051	14.675	6.754	21.903	0.000																									
10:DEU	11.313	8.734	6.731	16.801	2.919	0.000																								
11:FRA	22.706	14.551	10.718	18.469	11.374	9.328	0.000																							
12:LUX	30.231	25.880	14.762	28.435	17.255	20.675	10.907	0.000																						
13:PRT	24.627	18.037	9.837	24.604	18.923	17.542	7.799	17.021	0.000																					
14:ESP	37.569	25.506	18.731	29.891	27.772	29.556	17.660	21.927	7.298	0.000																				
15:IRL	25.583	15.349	12.732	19.393	18.959	20.823	16.727	22.184	9.501	10.688	0.000																			
16:CHL	47.038	27.948	24.278	24.597	29.721	29.433	26.559	20.491	23.466	28.603	18.245	0.000																		
17:MEX	59.523	44.132	33.509	37.356	31.324	35.316	32.247	27.917	28.416	32.319	28.061	13.002	0.000																	
18:ITA	25.569	15.892	12.037	19.460	11.903	12.605	12.788	19.540	8.937	16.451	14.147	21.378	18.894	0.000																
19:SLV	30.441	22.871	14.914	22.951	11.831	16.999	16.038	16.885	12.374	15.684	9.737	17.550	17.382	5.443	0.000															
20:SVK	33.464	24.926	17.948	25.774	13.399	13.257	20.864	24.469	18.991	30.946	22.389	15.431	20.206	9.900	10.573	0.000														
21:POL	55.051	43.067	30.182	30.343	25.260	31.144	20.166	24.607	21.882	28.304	25.810	19.953	14.881	15.691	13.215	18.025	0.000													
22:HUN	38.414	27.218	20.369	22.110	15.418	15.904	18.637	28.592	16.250	20.909	16.753	17.552	18.197	10.769	8.838	5.518	12.150	0.000												
23:CZE	35.544	25.701	15.281	25.320	9.808	12.435	9.418	15.335	12.893	19.909	18.382	16.235	16.861	10.338	7.858	7.393	8.067	5.310	0.000											
24:EST	37.776	23.140	20.841	27.714	21.894	20.594	20.500	25.375	18.344	21.513	13.081	13.924	29.273	24.539	15.130	16.542	30.868	13.688	13.057	0.000										
25:NZL	37.628	31.714	23.986	31.178	24.236	28.763	30.506	29.925	26.862	23.678	15.067	22.965	37.298	34.923	21.426	26.183	35.985	20.891	20.598	8.809	0.000									
26:AUS	28.071	15.992	18.589	12.370	21.932	23.067	24.191	26.465	21.207	16.831	9.668	17.266	31.187	21.851	14.978	25.363	30.641	19.383	21.018	11.915	9.012	0.000								
27:USA	58.081	40.452	46.608	26.719	40.178	46.474	47.561	34.431	55.021	42.301	29.713	29.619	41.529	45.050	30.865	46.255	45.322	39.750	41.251	34.319	26.685	17.052	0.000							
28:CAN	30.690	26.785	23.053	19.385	24.562	29.003	29.568	20.348	29.626	27.295	14.065	19.115	27.646	30.253	19.436	31.237	35.393	28.593	27.566	19.658	11.749	8.568	11.554	0.000						
29:GBR	31.125	16.228	23.817	12.785	22.205	22.715	27.437	23.747	29.369	25.203	13.420	19.161	34.088	24.083	17.941	24.014	37.939	22.361	25.992	17.129	15.555	7.372	8.543	7.769	0.000					
30:JPN	36.205	28.953	20.409	23.594	15.905	23.381	21.969	15.478	26.541	20.305	15.737	19.378	22.348	23.027	11.083	25.754	21.466	18.792	14.272	16.625	13.009	10.105	12.664	8.697	12.810	0.000				
31:KOR	48.870	35.479	31.479	26.177	26.376	30.780	26.834	32.019	27.702	20.873	22.629	27.573	18.274	21.895	14.403	32.461	21.205	18.989	18.140	23.234	26.455	14.951	28.141	21.839	25.881	9.859	0.000			
32:DNK	20.507	13.339	15.915	27.844	18.496	20.337	25.715	40.877	26.789	27.213	14.981	45.001	58.130	29.886	28.926	41.963	50.016	35.992	33.111	28.882	24.366	17.568	45.469	30.154	26.435	27.634	36.166	0.000		
33:NOR	16.439	20.369	5.899	25.908	11.088	13.819	15.024	14.756	16.908	25.249	17.993	21.275	35.028	22.933	18.048	21.365	27.971	23.325	13.842	16.167	15.263	16.318	43.092	19.621	26.889	15.524	29.815	21.167	0.000	
34:SWE	16.489	19.366	10.800	24.311	13.655	17.718	23.102	28.507	26.290	28.806	19.871	33.849	47.759	29.389	23.997	33.259	37.315	30.182	23.251	23.797	16.159	12.795	39.458	21.417	26.418	16.595	28.336	9.976	5.726	0.000

Source – Table by authors

Appendix

Table A.1 - Manifest Variables & Sources

Dimension	Measure	Definition	Source
Labour Markets	Protection of Permanent Workers against Individual and Collective Dismissal	Protection of permanent workers with respect to (i) procedural inconveniences (ii) notice periods and severance pay and (iii) difficulty of dismissal (index points 0-6, least to most restrictive)	OECD
	Protection of Permanent Workers against Individual Dismissal	Protection of permanent workers with respect to (i) individual procedural inconveniences (ii) notice periods and severance pay and (iii) difficulty of individual dismissal (index points 0-6, least to most restrictive)	OECD
	Regulation on Temporary Forms of Employment	Regulation of fixed-term and temporary work agency contracts with respect to the type of work for which these contracts are allowed and their duration; regulation governing the establishment and operation of temporary work agencies; requirements for agency workers to receive the same pay and/or conditions as equivalent workers in the user firm, which can increase the cost of using temporary agency workers relative to hiring workers on permanent contracts (index points 0-6, least to most restrictive)	OECD
	Union Density	Ratio of wage and salary earners that are trade union members, divided by the total number of wage and salary earners	ICTWSS
	Wage Coordination	Degree of wage coordination from 1 = fragmented wage bargaining confined largely to individual firms or plants, 5 = centralised wage bargaining	ICTWSS
	Flexibility of Wage Determination	How are wages generally set in your country? (1 = by a centralised bargaining process; 7 = up to each individual company)	WEF
	Public Expenditure on Public Employment Services	Public expenditure on public employment services including an employment fund which is spent on training, wage subsidies and work experience, benefit administration and placement/related services by both public and private providers as a % of GDP	OECD
	Public Expenditure on Training	Public expenditure on labour market training programmes including institutional training, workplace training, integrated training and special support for apprenticeships as a % of GDP	OECD
	Public Expenditure on Sheltered, Rehabilitation & Supported Employment	Public expenditure on sheltered, supported employment and rehabilitation as a % of GDP	OECD

Product Markets	Administration Burden for Corporations	Administrative burdens on creating a public limited company (index points 0-6, least to most restrictive)	OECD
	Administration Burden for Sole Proprietor Firms	Administration burdens on creative individual enterprise (index points 0-6, least to most restrictive)	OECD
	Communication and Simplification of Rules & Regulations	Governments communication strategy and efforts to reduce and simplify the administration burden of interacting with the Government (index points 0-6, least to most restrictive)	OECD
	Barriers in Network Sector	Entry barriers in 8 network sectors and degree of vertical separation in the gas, electricity and rail transport sectors (index points 0-6, least to most restrictive)	OECD
	Legal Barriers to Entry	Pervasiveness of barriers to entry in 30 business sectors as a share of sectors in which there are explicit legal limitations on the number of competitors (index points 0-6, least to most restrictive)	OECD
	Scope of State Owned Enterprises	Pervasiveness of State ownership across 30 business sectors measured as a share of sectors in which the state controls at least one firm (index points 0-6, least to most restrictive)	OECD
	Government Involvement in Network Sector	Government stakes in the largest firms in 6 network sectors (electricity, gas, rail transport, air transport, postal services & telecommunications) - (index points 0-6, least to most restrictive)	OECD
	Government Control over Private Enterprises	Indicators of the licensing & permit system, enterprise procedures, administration burdens on start-ups, scope of legal barriers, existence of anti-trust exemptions for public enterprises (index points 0-6, least to most restrictive)	OECD
	Government use of Price Controls	Extent and type of price controls in the economy (index points 0-6, least to most restrictive)	OECD
	Government use of Command & Control Regulations	Extent to which the Government uses coercive as opposed to incentive-based regulation (index points 0-6, least to most restrictive)	OECD
	Barriers to FDI	Restrictiveness of a countries FDI rules in terms of foreign equity limitations, screening or approval mechanisms, restrictions on the employment of foreigners as key personnel and operational restrictions (e.g. restrictions on branching and on capital repatriation or on land ownership) - (index points 0-6, least to most restrictive)	OECD
	Barriers to Trade (Tariff Barriers)	Cross-product average of effectively applied tariffs (index points 0-6, least to most restrictive)	OECD

	Barriers to Trade Facilitation	Recognition of foreign regulations, use of international standards and international transparency of domestic regulation (index points 0-6, least to most restrictive)	OECD
Education System	Gross Domestic Expenditure on R&D	Gross domestic expenditure on Research & Development (GERD), defined as the total expenditure on R&D carried out by all resident companies, research institutes, University and Government laboratories as % of GDP	OECD
	Publicly Financed R&D	Public expenditure on Research & Development (R&D) as a % of GDP	OECD
	Percentage of Labour Force with Tertiary Level as Highest Level of Education	Labour force with tertiary education is the share of the total labour force that attained or completed tertiary education as the highest level of education.	World Bank
	Expenditure on Primary Education as % of Government Expenditure on Education	Public expenditure on primary education as a share of total government expenditure on education.	OECD
	Expenditure on Secondary Education as % of Government Expenditure on Education	Public expenditure on secondary education as a share of total government expenditure on education.	OECD
	Share of Population by Education Attainment: Upper Secondary & Post-Secondary Non-Tertiary – General Education	Population with upper secondary & post-secondary non-tertiary 'general education' is the share of the population that attained or completed such qualification level as their highest level of education	OECD
	Share of Population by Education Attainment: Upper Secondary & Post-Secondary Non-Tertiary – Vocational Training	Population with upper secondary & post-secondary non-tertiary 'vocational education' is the share of the population that attained or completed such qualification level as their highest level of education	OECD
	Percentage of Labour Force with Secondary Education as Highest Level of Education	Labour force with secondary education is the share of the total labour force that attained or completed secondary education as the highest level of education.	World Bank
	Unemployment Rates by Education Attainment – Upper Secondary & Post-Secondary Non-Tertiary Education	Unemployment rates of those in the labour force whom their highest level of educational attainment is ' Upper Secondary & Post-Secondary Non-Tertiary Education'	OECD
Financial System	Ease of Access to Loans	In your country, how easy is it to obtain a bank loan with only a good business plan and no collateral? (1 = extremely difficult; 7 = extremely easy)	WEF

Availability of Financial Services	In your country, to what extent does the financial sector provide a wide range of financial products and services to businesses? (1 = not at all; 7 = provides a wide variety)	WEF
Venture Capital Availability	In your country, how easy is it for entrepreneurs with innovative but risky projects to find venture capital? (1 = extremely difficult; 7 = extremely easy)	WEF
Financing through Local Equity Markets	In your country, how easy is it for companies to raise money by issuing shares on the stock market? (1 = extremely difficult; 7 = extremely easy)	WEF
Five Bank Asset Concentration	Assets of five largest banks as a share of total commercial banking assets.	World Bank
Bank Concentration (%)	Assets of three largest commercial banks as a share of total commercial banking assets.	World Bank
Pension Fund Assets to GDP	Ratio of assets of pension funds to GDP. A pension fund is any plan, fund, or scheme that provides retirement income.	World Bank
Stock Market Capitalisation	Total value of all listed shares in a stock market as a & of GDP	World Bank
Stock Market Total Value Traded to GDP	Total value of all traded shares in a stock market exchange as a % of GDP	World Bank
H-Statistic	Measure of the degree of competition in the banking market: Elasticity of banks revenue relative to input prices. Under perfect competition, an increase in input prices raises both marginal costs and total revenues by the same amount, and hence the H-statistic equals 1. Under a monopoly, an increase in input prices results in a rise in marginal costs, a fall in output, and a decline in revenues leading to an H-statistic less than or equal to 0. When H-statistic is between 0 and 1, the system operates under a monopolistic competition.	World Bank
Lerner Index	Measure of market power in the banking market. It compares output prices and marginal costs. An increase in the Lerner index indicates a deterioration of the competitive conduct of financial intermediaries	World Bank