

# **Fdi, Clusters and Catching-up by Smaller Developing Countries: Is Smallness a Liability or an Asset?**

## **I Introduction**

In this paper, we explore the role of foreign direct investment (fdi) and (its relationship to) clusters, on the competitiveness of small(er) developing countries and their catching-up. We claim that when it comes to fdi, clusters and competitiveness, similar considerations apply to small(er) countries as to large ones, and that size per se need not be a constraint to competitiveness (and catching-up). However, size is an important variable that needs to be taken into account when devising and implementing strategies for competitiveness and catching-up in general and under the present phase of globalisation in particular.

We structure the paper as follows. Following this Introduction (Section I), in Section II, we assess briefly and critically extant perspectives on competitiveness and catching-up theory and policy and the role of fdi in this context. Section III sets off from limitations of extant scholarship identified in the previous section to develop a novel framework for competitiveness and catching-up and discuss the role of fdi, clusters and government (policy) in its context. Section IV addresses the issue of size in the context of the framework proposed in Section III and discusses some policy implications for small(er) developing countries. The last section (V) offers concluding remarks, discusses limitations and the scope for future research.

## **II      Competitiveness, Catching-up and fdi**

The concept of “competitiveness” is both elusive and controversial, especially when applied to nations. For example, Krugman (1994) lamented the “obsession” of policy makers with the issue of “national competitiveness”, claiming that this obsession can be dangerous. One of Krugman’s critiques refers to competition between firms and nations. Firms do compete, in his view, for example for market shares, and this competition is zero-sum. Instead, nations do not compete in a comparable way, and the outcome is positive-sum: when one benefits, the others do too. For Krugman, the best measure of national economic performance is total factor productivity (TFP) – a proposition also supported by Porter (1990).

Krugman’s views have been subjected to a battery of criticisms, see Aiginger (2006a, b) for a recent account, albeit not so much on his views on competition. These, we believe, are not immune to criticism. Following, for example, Allyn Young’s (1928) work on increasing returns, we appreciate that competition between firms is one fundamental way through which markets are created and expanded, suggesting that inter-firm competition need not always be a zero-sum game. On the other hand, when nations compete through strategic trade policies, Krugman’s own work shows that the outcome need not be positive-sum, (Krugman 1986, 1989). Fundamentally, however, competition and competitiveness are not synonymous. In its more generic sense competitiveness refers to the ability of an economic entity to outperform its own “peer” group, in terms of a shared objective. For example, if the objective is to improve a country’s per capita income in terms of purchasing power parity, and if other nations share a similar objective, a country that outperforms the others in terms of this objective can be defined as more “competitive”. This competitiveness could be

achieved through apparently rivalrous actions (e.g. strategic trade policies), co-operative actions, a combination of the two (co-opetition), or just no interaction whatsoever; a country can outperform another without necessarily engaging in trade with it, or even in trade. In fact, such a generic definition of competitiveness can be applicable to individuals, firms, regions, even universities and courses, such as MBAs, as we well know. What changes is the peer group and thus the shared objective, (which for example in the case of MBA courses, would be to outperform other universities with a comparable MBA course, ranked on the basis of a widely accepted index). A useful characteristic of this definition is that it has immediate implications for catching-up. For example, if an existing developing country is more competitive than the leading nations, this leads to catching-up.

Arguably, one can distinguish four major extant approaches-frameworks on competitiveness and catching-up; the neoclassical economic theory-based approach, the Japanese practice-based one, the “systems or innovations” view and Michael Porter’s “Diamond”.

The neoclassical view has a very long and distinguished history; the issue of the nature and determinants of the Wealth of Nations was central in Adam Smith (1776), while the importance of international trade in this context was a main concern of David Ricardo (1817). In its modern developments, (exogenous) growth theory includes the landmark contribution of Solow (1956) while, more recently, endogenous growth theory, includes scholars such as Lucas (1988) and Romer (1986, 1990). The main difference between the two types of views is that “endogenous” growth theory tries to account for the (endogenous) role of “technical change”, human capital and

“increasing returns”, which were previously treated as exogenous variables, see Solow (2000) and Fine (2000) for critical assessments. In international trade, neoclassical theory built on the idea of David Ricardo that free trade, based on comparative productivity advantages can benefit all nations. The well known Heckscher, Ohlin, Samuelson (HES) model relies on comparative advantage (abundance) in factor endowments, and confirms the Ricardian ideas under conditions of non-increasing returns, see for example Samuelson (1962). More recently, however, strategic trade theorists, such as Paul Krugman (1987, 1989) question the predictions of the HES model, for the case of imperfect competition, increasing returns, spill-over effects, and first-mover advantages. In such cases, Krugman shows that strategic trade policies (in support of some sectors and firms) could at least theoretically favour a nation that leverages them (see Krugman 1992). On the other hand, strategic trade policies can lead to conflicts over the division of benefits, and are plagued by the possibility of “government failures” (in identifying the right sectors/firms), and possible retaliations, leading to a potential lose-lose situation, Boltho and Allsop (1987). In the case of high adjustment costs, characterizing the case of inter-industry trade (more common in cases of countries at different levels of economic development), the aforementioned problems could be accentuated (Krugman 1989, 1992). Deraniyagala and Fine (2001) provide a critical assessment of the theory and evidence of trade theory and policy.

Concerning the “competitiveness” of a nation, the implications of exogenous growth and the HES model, on the one hand, and the endogenous growth theory and new trade theory, on the other hand, can be at odds. Exogenous growth theory and HES assert that perfectly competitive markets, alongside free comparative-advantage-based trade, can optimise national and global resource allocation, therefore lead to

competitiveness and convergence, see Verspagen (2005). Convergence follows directly from the implied negative relationship between the growth rate of capital stock and the initial level of capital stock. This “absolute convergence” is not empirically confirmed, see Barro and Sala-i-Martin (2004). On the other hand, while “conditional convergence” and/or “club convergence” could be more likely for countries sharing comparable key fundamentals, like saving rates, underlying long-run growth rates and capital stock depreciation, recent evidence does not seem to be in support either of them, Baddeley (2006). The role for government intervention in the context of exogenous growth – HES theory, is rather modest, to addressing problems of market failure (such as imperfect competition), ensuring no barriers to trade, and aim for temporary increases in the growth rate by increasing investments in plant, equipment, human capital and R&D, see Solow (1997).

The implications and predictions of endogenous growth and new trade theories are more complex and more open to government intervention, especially in their interaction. For example, endogenous growth theory views increasing returns and (thus) imperfect competition as a contributor to growth, while the new trade theory regards the same factors as reasons for possible strategic trade policies. In combination one can foresee a situation where governments promote imperfectly competitive markets in order to promote growth at the national level, while at the same time protecting their imperfectly competitive sectors and firms, in order to gain advantages from (strategic) trade. The above are not the only policy implications of

the two theories, yet such implications are consistent with them, while they are inconsistent with the exogenous growth-HES views.<sup>1</sup>

An implication from the above as regards the neoclassical theory of competitiveness is that it consists of two major variants with different assumptions, and inconsistent prescriptions. Perhaps more importantly, the neoclassical theory, is ill-equipped to deal with the creative role of markets (as opposed to their allocative functions, once they exist). This renders it of limited use to analysing issues of competitiveness and catching-up, see Kaldor (1972), Audretsch (1989), North (1994), Amsden (1997), Nelson and Winter (2002). In the words of Nobel laureate Douglass North (1994): “Neoclassical theory is simply an inappropriate tool to analyze and prescribe policies that will induce development. It is concerned with the operations of markets, not with how markets develop. How can one prescribe theories when one doesn’t understand how economies develop?” (p. 359).

Concerning “old growth theory”, Robert Solow (1997) almost admits as much, but suggests that one should turn “more naturally to Max Weber than to a modern growth theorist” (p.72), in order to explain the role of institutions, attitudes and “modernisation” (versus “growth” of an already modernised economy). Solow goes on to suggest that the fundamental differences between old (exogenous) and new (endogenous) growth theory, are that the former aims to explain trend-lifting growth,

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<sup>1</sup> Endogenous growth theories can also predict “divergence”, instead of convergence, and that *ceteris paribus* larger countries will grow faster than smaller ones; see Verspagen (2005), who also distinguishes between “convergence” (refers to the world level) and catching-up (that refers to individual countries) and discusses the similarities and differences between endogenous growth and evolutionary views. Divergence is also implied by contributions in agglomeration and new geography economics, see Henderson (2005) and below. Feenstra (1996) suggests that in the absence of knowledge diffusion divergence is more likely than convergence in open economy models of endogenous growth.

not trend-tilting one (growth policies that simply lift the trend as opposed to increasing the rate of growth per-se). The latter is achieved by endogenising technological change, but also at a potentially huge cost of hard to test assumptions, too much importance on the role of investment decisions on growth rates and fragile, too powerful and rather dangerous conclusions. In his conclusion “the forces governing the scope of the potential trend – the sustainable rate of growth- are complex, technological, and even a little mysterious. What we do know how to do is to lift the potential trend by a few percent. Even if the slope remains as before, that is a fine achievement” (Solow 1997, p. 92)

The macroeconomic policy prescriptions deriving from the analytical foundations of the neoclassical perspective have been encapsulated in the various versions of the Washington and post-Washington-type policy advice to developing and transition economics, see Shapiro and Taylor (1990). Their record has been at least questionable, see Stiglitz (2001), Rodrik (2004), Dunning (2006).<sup>2</sup>

A second approach to competitiveness and catching-up is that adopted by the Japanese government during the post-second world war reconstruction effort. While more pragmatic than theory-based, the approach has subsequently been “deconstructed” by scholars both Japanese and Western in a way that unearths the theoretical insight of the Japanese policies, see for example Best (1990), Amsden (1989), Wade (1990), Shapiro and Taylor (1990), Pitelis (1994). In addition, variants

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<sup>2</sup> For Stiglitz (2001) “The advocates of the neoliberal Washington consensus emphasize that it is government interventions that are the source of the problem; the key to transformation is “getting prices right” and getting the government out of the economy through privatization and liberalization. In this view, development is little more than the accumulation of capital and improvements in the efficiency with which resources are allocated—purely technical matters. This ideology misunderstands the nature of the transformation itself—a transformation of society, not just of the economy”(p xiv).

of the Japanese approach have been adopted by the various “tiger” economies of the East Asia, justifying, we feel, the term the “Japanese”- East Asian approach (Pitelis 1994, 2001).

An important characteristic of the Japanese approach is an interventionist stance of the government in close contact/partnership with industry, and with the explicit aim to restructure the economy in a way that creates competitive advantages, as opposed to simply accepting existing comparative advantages. In this context, elements of the industrial/competitiveness strategies of the country, devised and implemented in Japan by the Ministry of International Trade and Industry (MITI), included: the targeting and support of specific firms and sectors (which were perceived to be important in terms of high value-added, high income elasticities of demand and oligopolistic with high profit margins). These sectors and firms were at first protected from international competition, through managed-trade policies. Intra-sector competition was managed too, in the sense that in each sector the major players should be not too many, but not too few either (so as to avoid collusive practices, but also to avoid resource dissipation and create critical mass). In effect that was managed locally-based big-business competition. To ensure technology transfer, in the absence of foreign direct investment (which was discouraged), MITI encouraged an aggressive policy of buying licenses from foreign firms. To ensure competition from below to big players, thus a relatively level playing field, MITI required that firms purchasing licences would make them accessible to smaller players, Hill (2006). In addition, Japanese firms pursued a corporate strategy of growth and market share acquisition, not short-term profit maximisation, see Best (1990).

In the above context, a number of other characteristics of the Japanese approach included new innovative methods of doing business (for example, just-in-time), human resource management, worker participation, and others such as total quality management. All these have been widely discussed in the literature and were felt by many (e.g. Best 1990, Amsden 1989, Wade 1990, Pitelis 1994, Grabowski 1994, Shapiro/Taylor 1990) to have contributed to the remarkable performance of the Japanese economy, up to the late 1980s when it was leading global markets in sectors such as electronics, semiconductors and automotives, see Hill (2006). Variants of the Japanese approach were adopted by the “tiger” economies, such as South Korea, Taiwan and Singapore (see Pitelis 1994, Chang 1994) and, more recently, by the Chinese government (Nolan 2001, Lin 2004) and other tiger economies, such as Thailand, Malaysia and Indonesia (see Jomo 1997) and Vietnam (Chesier and Penrose 2007). A difference to the Japanese approach, of interest to the current paper, is that smaller economies, like Taiwan, Singapore and Malaysia, did not discourage, but rather encouraged fdi, albeit in a way that was perceived to be aligned to the overall competitiveness strategy (Pitelis 1994, Jomo 1997).<sup>3</sup>

There is extensive and heated debate on the effectiveness, or otherwise, of the Japanese approach, including the possibility that the subsequent decline of Japanese economic performance could be attributed to this original interventionist model, see Pitelis (2001). The simple fact is that it is not easy to tell. Moreover, even if we accept that the Japanese approach was successful, other factors might also be in play. These include the effectiveness of the political-bureaucratic structure (less government failure, so to speak) as well as cultural, institutional, and macroeconomic issues, see

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<sup>3</sup> For a more detailed and nuanced account of similarities and differences between the various East Asian countries, see Shapiro and Taylor (1990), Rodrik (2004), and for differences between older and newer ‘tigers’ see Jomo (1997).

Shapiro and Taylor (1990) and Pitelis (2001). We do not wish to re-enter this debate here. However, we do wish to point out that many of the fundamental presumptions of the Japanese competitiveness strategy did receive theoretical support, from one source or another. For example, the emphasis on big-business competition, the pursuit of market share, the emphasis on innovation of all types (including organisational, managerial and human resources) and the pursuit of long term profit through market share, are all in line with the work of scholars such as Schumpeter (1942), Penrose (1959), Chandler (1962), Baumol (1991) and others, and even more recent endogenous growth theory-based approaches, see Lucas (1988), Romer (1986). A focus on targeting of “strategic” sectors is in line with early development economics thinking on “infant industries” and more recent “new trade theory”, see Kaldor (1972), Krugman (1987, 1989), Shapiro and Taylor (1990). The emphasis on domestic competition is in line with arguments by Porter (1990) – see below. The support of SMEs and clusters seems to find accord with almost all economic perspectives, albeit for different reasons (e.g. entrepreneurship, agglomeration economies, cluster-building, locally-based development, challenge to multinationals, etc), see Krugman (1991a, b), Porter (1990) and Henderson (2005).

It is clear too that mistakes were made, and I believe that the failure of the Japanese to gradually give more space to market forces, could indeed partly explain subsequent difficulties. This is also in line with theoretical prescriptions, concerning the identification of the “optimal” mix between planning and markets and between market, hierarchy and co-operation<sup>4</sup>. Important for our purposes here is that the Japanese-East Asian perspective could be seen as a developmental-competitiveness

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<sup>4</sup> For example it is arguable that a more hands-on approach by government is required at the catching-up phase, while once a country has reached the “technological frontier” so to speak more focus on market signals may be appropriate

approach in its own right. It has clear implications on catching-up – indeed the whole philosophy and purpose of the approach is to catch-up through creating and capturing value faster than other countries -as well as implications on fdi and country size, to which we return below.

A third approach to competitiveness involves work under the evolutionary, resource and systems-perspective and varieties of - comparative capitalism banners. Much of this has been encapsulated in the “systems of innovation”, agglomeration and clusters and varieties of capitalism-related literature, see Lundvall (1988), Krugman (1991a,b), Nelson (1995), Freeman (1995), de la Mothe and Paquet (1997), Fagerberg et al (2005) and Jackson and Deeg (2006). A main characteristic of the evolutionary and systems-based views is a focus on intertemporal efficiency effected through innovation, combined with the belief that innovation is best promoted not by an exclusive focus to free and competitive markets, but by big-business competition and systems-wide linkages that involve markets, hierarchies (firms, governments), co-operation and competition, NGOs and more wider social capital-promoting institutions and organisations, see Freeman (1995), Jackson and Deeg (2006). The strength or otherwise of the innovation-system depends on the linkages of the whole system and on government policies, and institutions that promote innovation. Markets are but a part of the system, albeit an important one (see Stiglitz 1989). They need not be competitive, indeed big business competition may well have innovation-promoting advantages, see Nelson (1995) and/or Nelson and Winter (2002). In addition, the existence and promotion of agglomeration and clusters by small and medium-sized

enterprises (SMEs) can be a potent means to promote linkages, diversity, and (thus) innovation, see Fagerberg et al (2005), Metcalfe (2002), Wignarajah (2003).<sup>5</sup>

It is arguable that the systems perspective is focused more on value creation through innovation than value capture, (therefore catching-up), albeit not in all cases, see for example the discussion of catching-up in Freeman (1995). It can be argued that the promotion of an innovative economy will help engender superior economic performance, therefore superior competitiveness and (thus) catching-up. This does not fully account however for the possibility that value creation need not always be captured by the innovators (Teece 1986, Research Policy 2006) – we will return to this later. In addition, the “agglomeration” element of “clustering” may well engender inter-regional and inter-national divergence, see Krugman (1991a, b).

It is arguable that dissatisfaction with competitiveness models motivated Michael Porter (1990) to identify a gap to be filled. This is one way to explain why someone should be writing a book in 1990 on a topic that goes as far back as the origins of modern economics (Adam Smith’s *Wealth of Nations*, 1776), and so extensively discussed since. Porter’s “Diamond” approach suggests that the coexistence of appropriate factor conditions, demand conditions, firm and sectoral structure and strategy and related and supporting industries, engenders a “Diamond” and/or “clusters” of economic success-competitiveness.

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<sup>5</sup> There is extensive work on “agglomeration” economies, that draws on the work of Krugman (1987) on new trade, see Krugman (1991) and Henderson (2005) for a collection of papers. Martin (1999) provides a critical assessment. Martin and Sunley (2003) and Pitelis et al (2006) also discuss the historical antecedents of agglomeration and “clusters”-type literatures. For our purposes, agglomeration economies by themselves imply divergence, but also the possibility to catch-up, by diagnosing and upgrading agglomerations. Kottaridi et al (2008) provide an empirical test of the role agglomeration plays in attracting FDI, in the context of UK regions; the results are in line with the idea that agglomeration and the location of R&D labs by subsidiaries are positively correlated.

Many of the elements of the “Diamond” are present in extant works, for example “factor conditions” in the HOS model; demand conditions in Vernon’s (1966) work on the “product-life-cycle”, related and supporting industries, in the works of Marshall (1920) and work on clusters (see Best 1990, Edquist 2005), industry structure and rivalry in the works of Industrial Organisation (IO) scholars, see Tirole (1988). However, Porter added new insights and dimensions, notably firm strategy. This draws on strategic management and Porter’s earlier works (Porter 1980, 1985), and it is a breakthrough vis-à-vis neoclassical competitiveness models, which usually focus on macroeconomic considerations at the expense of firm-level analysis. The last mentioned is critical, as it can help shift focus on value capture (a main concern of firms) and (thus) up to a point catching-up.

In addition to the above, interesting in Porter’s work is the re-surfacing of agglomeration and “clusters” (in the form of related and supporting industries), and in their interaction with other parts of the “Diamond”, an emphasis on specialised, rare and hard to imitate factors (which is very much the theme of the resource-based view of firm strategy – see Wernerfelt (1984), Barney (1991), Peteraf (1993)), his emphasis on the importance of local as opposed to distant (such as international) rivalry, and a focus on demanding and sophisticated consumers (not just undifferentiated aggregate demand, as in the Keynes (1936), tradition). All these are quite impressive and help explain Porter’s successful journey from IO to strategy to national competitiveness policy scholarship and advice.

Concerning fdi, the four models have different implications and/or recognise different roles for it. In the neoclassical HOS model of international trade, fdi can be one of the mechanisms whereby factors and resources are transferred from where they are abundant to where they are scarcer, thus contributing to catching-up, see Stiglitz (2001). In the Japanese Far Eastern approach, fdi is a means to an end, it is used to serve the end of catching-up. In some cases, when technology transfer can be effected without fdi, alternatives are chosen; for example licensing in Japan, joint ventures in the earlier phases of Chinese opening-up to international markets, see Nolan (2001). When fdi is deemed to be necessary for industrialisation, it is encouraged, but placed as much as possible within the context of the industrial strategy objectives, as in Singapore, Korea and Taiwan (Shapiro/Taylor 1990, Chang 1994, Pitelis 1994, Jomo 1997). In the systems-perspective, fdi is seen as part of the system – it may help strengthen already extant linkages, but could also be of limited import, if footloose and stand-alone, see Freeman (1995). Finally, in the “Diamond”, fdi is seen as a measure of success, indeed outward investment is claimed by Porter (1990) to be no less than a sign of “competitiveness”. Others, e.g. Dunning and Pitelis (2008), question this optimism, seeing both positive and negative elements. In addition Dunning (1993), as well as Rugman and Verbeke (1993), extended Porter’s approach to include the potentially important role of fdi in affecting the determinants of the “Diamond”. There has also been extensive work on the potential interrelationship between fdi and clusters, see among others Freeman (1995), Pitelis (2001), Rugman and Verbeke (1993), Cantwell and Iammarino (2000) and Pitelis et al (2006).

There are few direct implications from the above models on the issue of country size, with the possible exception of the endogenous growth theory, where market-size

facilitates growth. On the other hand, the ability, for example of Japan and China, to make MNE entry their markets conditional on licensing or joint ventures could well be attributed to the attraction to MNEs of the large size of the market of these economies, alongside the bargaining power that this attraction afforded to them. In contrast, the pursuit of more proactive inward investment strategies by smaller players, (e.g. Taiwan, Malaysia, and Singapore), could be attributed to that their market size was not by itself a sufficiently attractive proposition for MNEs – so more proactive fdi policies were required to foster development.

We return to the issue of country size in the next section, where we also build on extant theory to develop a competitiveness framework that aims to address some problems of existing theories. In particular, none of the competitiveness frameworks or approaches discussed here has an explicit link between competitiveness at the micro (firm), meso (sectoral, regional) and macro levels; there is no explicit discussion of the issue of value capture for catching-up, versus value creation (which may be captured by others), and (thus) the interrelationship between value capture for catching-up strategies and value-wealth creation strategies. Indeed, some models of national competitiveness are ill-equipped to even address such issues, as they tend to rely on macro-categories, at the expense of the micro level (for example strategic management), where value capture is far more prominent. In this context, we feel that work on national competitiveness could benefit from insights derived from the international strategic management literature, when applied, suitably modified, to the national level. Last, but not least, work on strategic management can also have useful implications on the choice of developmental model by countries, depending on their size.

### **III A Novel Framework for Competitiveness and Catching-up and the Role of Country Size**

The limited discussion of micro-(firm-level)-foundations and the lack of an explicit focus on superior value capture capabilities (which can lead to catching-up) are two major limitations of extant theory<sup>6</sup>. Both can be addressed by strategic management scholarship, which on the other hand, (excepting Porter and some scholars of the systems-approach), is mostly alien to competitiveness theories, which are mainly macro-based (see Nelson/Winter 2002).<sup>7</sup> To go beyond noticing this, it would be useful to identify factors that engender value and wealth, at the firm level, but also the meso and macro levels, when suitably understood and aggregated-augmented.

The concept of value, first, is very loaded in economics and management (see Dobb 1973, and Bowman and Ambrosini, 2000 respectively). To avoid entering the interesting, albeit unresolved yet, debate on the nature and theories, of value, we focus instead on the much better understood concept of “value added”. Of course, this still incorporates the word “value”, a definition of which seems inescapable (yet is missing and/or highly contested in the literature, see Dooley 1990). For our purposes, we propose value to be defined as perceived worthiness of a product or service to a (potential and/or target) user. In this context, value added is the additional value

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<sup>6</sup> For a relatively recent comprehensive discussion on catching-up, see Fagerberg and Godinho (2005) and Fagerberg and Srholec (2005). The authors deal with most levels of analysis, but not the very micro (strategic management) one, as they themselves acknowledge.

<sup>7</sup> Microfoundations, in the sense of optimising behaviour by economic agents, is at the very heart of the neoclassical theory, not least its endogenous growth variety (see Fine, 2000). In this context our claim may sound paradoxical. However, it is simply in line with the well known criticism by Coase (1937), Penrose (1959) and others, that the neoclassical theory treats the firm as a black-box. What microfoundations there exist are in terms of profit maximising black-boxes, or the price-output decision of firms – not the creative role of firms and its impact on the macroeconomy. It is this type of microfoundations that we have in mind, that it is missing and that requires much more work and progress than there exists, including our own limited contribution here.

conferred to a product or service by an economic agent, be this an individual, a firm, a sector, or a nation. Value added can be potential or realized. It is potential before users have been convinced to pay a market price to purchase the product or service, and it is realized once the product or service is purchased. Value-added may never be realized if consumers lack the power to purchase (effective demand) and/or when sellers are outcompeted by rivals who possess substitute products, and/or superior competitive advantages (such as complementary assets and capabilities, see Teece 1986). This renders a discussion of value realization and value appropriation/capture strategies critical.

Value added is engendered in two fundamental ways: one is through increased efficiency and/or productivity, therefore a reduction of the cost of production; the other is an increase in the perceived utility-worthiness of the product or services through “differentiation”.<sup>8</sup> This can be due to real factors, such as increased functionality and/or aesthetic appeal, or to “imaginary” factors, effected for example through advertising. There are long debates on these issues in industrial organisation (IO) and strategic management (see Tirole 1988, Grant 2005); usually real and imaginary elements coexist, and it is arguable that through innovation, cost reductions and increased appeal (product differentiation) can take place simultaneously (see Pitelis/Taylor 1999, who propose a “value for money” strategy that integrates Porter’s 1985 two major “generic strategies”-cost leadership and differentiation).

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<sup>9</sup> It could be argued that “utility” suffices and that cost production is of no additional use, as neoclassical economists do, see Robbins (1935). However, this would preclude one route through which perceived utility may increase; for business this is important. In any event, most neoclassical textbooks use the Demand-Cost Curve apparatus, which incorporates both a utility (through Demand) and cost (through the Cost curve) element.

The crucial question is what are the major determinants of value added at the firm level, and to what extent the same or similar determinants exist at the meso and macro levels; so as to build on the firm-level microfoundations, in order to derive the determinants of the wealth of a nation. Drawing on extant theory of economics and management, Pitelis (2004) suggests that four major factors interact to explain value-added (through efficiency and/or differentiation) at the firm level: firm strategy and infra-structure; unit cost economies/increasing returns; resources, notably human ones; and technology and innovativeness. The importance of all four factors is well rehearsed in the literature, which involves virtually all all-time classics in economics and management. Important, however, in this framework is that the same four factors can be re-interpreted to apply to the meso (region, industry, sector) and macro-levels (Pitelis, 2004), thus allowing a relatively smooth aggregation, based on microfoundations.

The emergent “wheel of value” is shown in Figure 1;

[Figure 1 around here]

The “wheel” has the added advantage that one can examine in its context, the role of fdi, clusters and government (policy) as well as their interrelationships, as these interact and impact on all three levels. For example, Figure 1 shows that large size, and fdi by MNEs as well as clusters (by SMEs and/or MNEs), and the “government” (policies) are interrelated (with clusters attracting fdi and fdi creating and/or being linked to clusters, and government policy affecting and/or being affected by both), and they all impact on the determinants of value-added. The impact, however, need

not always be positive or beneficial. Fdi can do harm, or good; clusters can lead to congestion effects, or wither away (see Martin/Sunlay 2003); governments can be corrupt and/or ineffective and (thus) create (as opposed to solving) market failures see Krueger (1974), Shapiro and Taylor (1990) and Stiglitz (1998) for discussions.

Identifying the major determinants and actors of potential value added need not lead to realized value and wealth. This is where strategic management becomes crucial in informing policy makers. In particular, the determinants of value added in the “wheel of value” impact on potential value, not realized value, with one exception: that of firm (sector, industry and/or national) strategy. At the macro economic level, there has been limited interest on the issue of strategies for capturing value. Instead, in IO and strategic management, there is extensive discussion on strategies for value realization/capture. There are four major types of such strategies: integration, diversification, and cooperation strategies; “generic strategies”; entry deterrence strategies (through strategic or “innocent”-technological barriers to entry); and “firm differentiation/heterogeneity” strategies - see Pitelis (2006) for an account. There is some overlap and extensive interaction between these strategies (for example, Porter’s (1985) “generic strategies” include two out of the four barriers to entry of Bain (1956), namely product differentiation and cost advantages). It is also arguable that such strategies are co-determined and co-evolving. Nevertheless, crucial about them is that in their interaction with product promotion and competitive strategies they help firms to realize potential value as profit, and capture more value than their competitors (sometimes even by capturing potential value created by their competitors, see Pitelis 2006, and Research Policy 2006).

It is arguable, that such strategies for value realization and value capture are applicable at the meso and national levels, albeit to different degrees. For example, countries can use strategic trade/protectionist policies. In addition, countries (and regions) may adopt regional/national differentiation strategies by strengthening, engendering and/or promoting their comparative or competitive advantages. In some cases, integration (or dis-integration) strategies are adopted by nations (for example, the integration of Germany, or the de-integration of countries from the former Soviet Union). Regional integration of countries, such as the EU, NAFTA or ASEAN, is common. The concept of generic strategies is also of much relevance to nations, who may choose (or turn out) to be cost leaders (e.g. China in manufacturing, India in IT services) differentiation (e.g. Italian design), or niche strategies (for example, Switzerland in banking and/or watches). More complex cases, could involve attempts to combine elements of niche (cost leadership and/or product differentiation) in specific activities (like for example, Finland in the case of mobile telephony). Such strategies, in addition, can be partly history-determined, partly the result of policy initiatives, or usually a combination of both, such as the Finnish case - see Hill (2006). Fagerberg et al (2005), Freeman (1995) and Shapiro and Taylor (1990) provide discussion of various cases.

An awareness of the determinants of potential value added and the factors that can help realize/capture value can provide useful insights to policy makers who seek to achieve superior economic performance to that of their peers. At the broadest possible level, a superior ability to create and, especially, capture value in international markets is tantamount to superior economic performance by a particular nation. The mix of market/hierarchy/cooperation, private-public-hybrid, institutional, micro and

macroeconomic policy, and the effectiveness and innovativeness of institutions, organisations and policies, will tend, in their interaction, help the “leaders” and “laggards”, in this game, see Abramovitz (1986) and, for a critical survey, Fagerberg and Godinho (2005). It is not possible to go into further detail on exact policies here. This would, in effect, be the economic equivalent of searching for the “holy grail”, but see Shapiro and Taylor (1990), Solow (1997) and Rodrik (2004) for more on this.<sup>9</sup> Instead, our aim here is to draw on the discussion above in order to discuss the role of country “smallness”, and the role of fdi in the context of our framework and discussion.

There has been extensive discussion on the issue of country smallness, for some disproportionate to the attention the subject deserves (Easterly and Kraay, 2000)<sup>10</sup>. A host of theoretical factors would tend to suggest that smallness can be a liability. For example, indivisibilities in the provision of public services, notably fiscal institutions and defence may lead to increasing returns, that favour larger constituencies; increasing returns may be important in the private sector too, indeed favouring sectoral compositions, for example a focus in manufacturing (see Kaldor 1972), which in turn can facilitate agglomerations (see Krugman 1991a,b). Small size may discourage diversification of activities, in line with Adam Smith’s dictum that the division of labour is limited by the extent of the market. In addition, in smaller countries, public sector personnel may be closer to powerful constituents, and (thus)

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<sup>10</sup> Shapiro and Taylor (1990) discuss seven “boundary conditions” that can help devise and implement successfully state developmental policies, country size being one of them-see below. Rodrik (2004) distinguishes between first principles (market-based competition, property rights, incentives, sound money) and the plethora of specific policies that can be in line with the first principles, in an attempt to explicate the failure of “Washington consensus-type policies”, while salvaging the core of the neoclassical agenda.

<sup>11</sup> The definition of “smallness” tends to also vary widely, from a population of 20 million in works such as Chenery et al (1986), to 3 million in Armstrong et al. (1998) and 1-1.5 million in the survey article by Tavares (2006). The term may be also taken to have a relative aspect, depending, for example on the country’s “neighbours” or “peer group”.

be subjected to more (and perhaps conflicting) pressures; it is more difficult to find qualified human resources in smaller places, trade multilateralism may endanger the bilateral trade concessions from which some small state currently benefit (Easterly/Kraay 2000). In addition, many small states suffer from locational disadvantages (e.g. distance from other developed nations), are landlocked and/or located in areas prone to natural disasters.

On the other hand, potential advantages of smallness include, the coincidental, yet common, existence in them of good natural resources (especially in the case of island states), more cohesive populations that allow better adaptation to changing circumstances, and even “opportunities for international risk sharing, since the correlation of economic fluctuations in small states with the world business cycle is surprisingly low” (Easterly/ Kraay 2000, p. 2014).

In an econometric analysis of country size and growth, Milner and Westaway (1993) concluded that:

“there is no obvious link between medium term growth performance and a range of attributes of country size and performance. There is, however, some evidence that certain “sources” of growth over the medium term are affected by country type. In particular “capital shallowing” and greater barriers to intercountry technological spillover in agriculture are evident for small countries. These effects are likely to be weaker, however, as openness increases” (p. 211).

Moreover, Easterly and Kraay (2000) conclude that, in contrast to “conventional wisdom,

“small states have, if anything, significantly higher per capita income than others in their region. There is no significant difference in growth performance between larger and small states” (p. 2024)

More recently, Tavares (2006) explore the relationship between country size, remoteness and performance. He comes up with similar results for size in general, but not when remoteness is taken into account. Tavares concludes that there is no evidence that being small is a disadvantage, quite the contrary! In particular, small island economies exhibit better, not worse, performance. This, however, is reversed when one examines “landlocked” economies, and small economies which are away from world markets. When exploring policy variables, such as trade openness, education, size of government and investment, Tavares concludes that:

“Openness to trade, more education and low government consumption, further growth in smaller economies, while openness and investment benefit remote economies” (p.11).

In addition, “while size and remoteness are associated with differing economic performance, economic policies can substantially affect the growth rates of economies, overcoming the lost or magnifying the advantages of geography” (Tavares 2006, p.11).

Some of the above findings accord well with the emphasis in IB scholarship on location, see for example Dunning (1998), in general, and for the purpose of attracting fdi in particular. *Ceteris paribus*, smaller countries may find it harder to attract fdi (Srinivasan 1980); this will tend to be exacerbated when smallness is combined with remoteness, (Tavares 2006). It follows that fdi policies, much like trade policies, can

be an important policy variable for smaller developing countries, perhaps more so than for larger ones.<sup>11</sup> This might help explain why proactive inward investment policies have been associated mainly with smaller catching-up countries (such as Taiwan, Malaysia, Singapore, and Ireland) and/or regions within larger constituencies, (such as Wales in the UK).

A further consideration concerns the stage of economic development of a small country. For example, it is arguable that attracting inward investment is more important for small emerging or transition economies than for small developed countries. At the same time, trade openness, (financial) liberalisation and fdi at an early stage of development, when the country lacks competitive capabilities, firms, markets institutions and organisations, may fail to deliver the goods for numerous reasons, well rehearsed in the literature, see for example Deraniyagala and Fine (2001). Recent scepticism, especially as regards the impact of financial globalisation, is a case in point, see Stiglitz (2007), Argitis and Pitelis (2008), Rodrik and Subramanian (2008). For the last mentioned, countries lacking investment opportunities may find this problem exacerbated, through an increase in the real exchange rate resulting from financial liberalisation. On the other hand, as Agmon and Messica (2008), point out it may be easier for some smaller, middle income countries, like Israel, to attract private equity investments in specific high risk sectors. It could also be argued that recent pressures on food prices (see FAO 2008) could serve as an advantage for smaller middle income agricultural producers, who are net food exporters and could specialise on high-quality food products (e.g. organic farming), reversing, up to a point the Prebisch - Singer hypothesis (of deteriorating

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<sup>12</sup> Greenaway and Nam (1988) for example provide evidence that between 1963 and 1985 more export oriented developing economies achieved much higher growth rates (7.7% the export-oriented, versus 3.7% the inward oriented).

trade terms of developing countries due to price and income elasticities of primary versus manufacturing goods). It appears that some agricultural products, like for example organic ones, are characterised by high income elasticities. In any event, a crucial question is how to attract inward investment in a way that it is sustainable, namely it is embedded within the economy, it sees fit to stay, even when conditions (e.g. cheap labour cost) change. We address this in the next Section. In particular, we suggest that all countries need to decide on their comparative or competitive advantages, their competitive positioning and the means through which to achieve their developmental objectives. However, there are special considerations that apply to smaller, developing economies.

#### **IV Competitive Advantage, Competitive Positioning and Vehicles to Competitiveness**

Small countries, like large ones, need to diagnose their comparative advantages, and reach a decision on whether they wish to “compete” on their basis, or to try to develop new competitive advantages, in activities, where they perceive to have more potential for the country and in international markets. Countries, that is, need to diagnose their “productive opportunity” (Penrose 1959), (the dynamic interaction between their internal resources and competencies and the external opportunities and threats). Sometimes, potential advantages are latent and hard to identify. For example, in many transition economies post-1989 in Eastern Europe, people found themselves with ample time at their disposal and few opportunities for employment. Many were educated with mathematical and computing aptitudes. Some originally used these for quasi-illegal or outright illegal IT-related activities. In time accumulated expertise could be applied to legitimate activities, and help create IT clusters (for example in

Romania). This latent IT cluster was possible to diagnose already in the early 1990s, and indeed it was diagnosed in some studies (see Pitelis 1997). The desired mix of comparative and competitive (comparative-to-be) advantages for each country and for each case requires in-depth investigation and cannot be decided on a priori grounds without analysis on the ground.

Once the comparative or competitive advantages have been diagnosed, selected and pursued (in the case of competitive ones), the next decision is the positioning stance. Building on our earlier analysis, countries, like firms, could choose to position themselves along the relative cost-differentiation (“Image”) spectrum. This is shown in Figure 2.

[Figure 2 around here]

In the relative cost-differentiation spectrum, the best position to be in is low cost/high differentiation. This is normally effected by countries with a high innovation culture and performance – with strong “systems of innovation”, so to speak. This allows them to simultaneously reduce costs (through organizational and institutional innovation), and produce products, services and an “image” (country differentiation) of a leader, an innovator, a quality player. Small European players such as Sweden and Finland may be cases in point, see Freeman (1995) and Fagerberg et al. (2005)

Countries with high costs and low differentiation are laggards, they produce expensive goods and services, and the image of the country is one of low quality.

High relative costs can be due to low innovative capability, poor infrastructure, lack of increasing returns, poor organizational and institutional configuration. Greece in the 1980s is an example.

Countries with high costs and high differentiation are likely to be developed ones with high technical and operational competencies, but without a strong innovation system, at least not presently. These countries can have relatively high costs, because, for example, of high labour costs, themselves the result of distributional and welfare policies, that resulted from a “glorious past”. Lack of innovative capabilities can be the outcome of organisational and institutional sclerosis, an insistence on doing already proven things in already proven ways. This lack of curiosity and innovation could result in this “stuck in the middle”/question-mark position. It is likely to characterize developed economies that somehow have lost their way, their incentive to compete and innovate. Germany in the 1990s may be a case in point; so is Britain in the 1970s (and it looks like in the 2010s).

Low cost, low differentiation economies are also stuck in the middle, but are likely to be at an earlier stage of their development, perhaps transition or emerging economies. Here unit costs can be low because of very cheap labour and resource costs, but the lack of differentiation/comparative or competitive advantages also place them in the question-mark category. Eastern European transition economies are cases in point.

There can be intermediate situations, for example, in more recent years, the positioning of many South European countries, for example Greece, South Italy, Portugal and Spain, has been characterised by a very sui-generis model – that of low

costs/moderate or even high skills/competencies. Relative costs have been kept low, through the creation of the so called 1,000 Euro generation, usually well educated, skilful and competent graduates who, however, have to work (often far in excess of the 8 hour working day), for Euro 1,000 a month (and indeed in Greece or Portugal for as low as Euro 600!). This helps the competitive positions of these countries vis-à-vis, for example, low cost/low differentiation ones. It is sustained through a sui-generis, inter-generational transfer of resources (the savings-wealth the parents accumulated in previous years), and/or through multiple jobs (when feasible) and grey market activities. All these help engender their competitiveness despite the absence of a strong innovation culture/system. At one level, they represent a form of indirect subsidisation of locally-based firms and industries, which under normal circumstances (namely if individuals earned more, the state taxed them and used the taxes to subsidize industry), they would be considered as anti-competitive practices, for example by the European Commission. They are a form of Non-direct taxation of the countries' middle classes.

The relative costs/differentiation matrix does not make an explicit distinction between stages of development although it is likely that countries in the first column are likely to be developed, while the other less so, or emerging. The matrix can be of help to all countries, to identify ways to improve their competitiveness by reducing unit costs, improving differentiation, strengthening their innovation capabilities. For example, a small country (let's say island economy), with excellent climate, low costs of labour and little manufacturing (thus production costs too), can aim to effect high country differentiation (let's say as a tourist destination), with good service (which need not require much higher costs, if effected through cultural/educational means) and low

costs. Small countries, with ample time to spare, due to lack of employment opportunities, could aim to effect differentiation through emphasising service provision, e.g. call centres, IT services etc. These are in effect “niche-differentiation” strategies. They are likely to be more appropriate for smaller countries which cannot compete with an across the board differentiation strategy.

This prescription is supported by the excellent account by Shapiro and Taylor (1990), who point to the “importance of specialized, niche-oriented industrial strategies for small, open economies” (p. 869) and go on to conclude that “There is no reason why production for appropriate niches should not initially be supported by import barriers and export subsidies; ... full industrialization only occurs when infant firms grow up and can compete more or less effectively on international terms” (p. 873)

A third issue that all countries need to assess is the vehicles and policies through which competitiveness can be improved. Discussing specific policies is beyond the scope of this paper - see for example Shapiro and Taylor (1990), Rodrik (2004), Fagerberg and Godinho (2005), Pitelis (2007) for more detailed discussions. By “vehicles” we refer to “fdi” and “clusters”, as per Figure 1. Both independently can impact on all determinants of value creation, see Pitelis et al. (2006) for a more extensive account. However the sustainability of value capture requires embeddedness. This means that countries should preferably aim to create linkages between clusters and fdi, so that fdi does not “fly” when conditions change, (e.g. costs

go up), because margins have also gone up through higher differentiation, effected through embeddedness.<sup>12</sup>

The need for embeddedness is emphasized in the work of Abramovitz (1986), albeit he uses the term “social capability”. Abramovitz suggests that differences between the levels of development between countries do present opportunities for catching-up and convergence, but only provided that these countries have developed a social capability adequate to absorb existing more advanced technologies. The concept is very similar to that of “absorptive capacity”, on which recent research currently takes place in IB scholarship (see Kottaridi et al., 2006 for an account). From our point of view, the interest lies in the fact that the building of “social capability” and/of “absorptive capacity” is something that involves by definition (viz the word “social”) the government and the policy at large – it is not just a matter for the private sector. In addition, in our context here, local development effected through clusters represents one way through which “social capability” and “absorptive capacity” can be enhanced. Indeed the presence of clusters can also be seen as a manifestation of the existence of social capability that can be fostered through appropriate government measures.

The three issues raised above can and should be considered simultaneously. Competitive advantages could be linked to the positioning, clusters should be

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<sup>13</sup> Jomo (1997) comments on the issue of FDI and sustainability in the context of the development of the first-tier East Asian countries (like Singapore, South Korea, Taiwan and Hong Kong) and the second-tier ones, like Thailand, Malaysia and Indonesia as follows: “While the Northeast Asian economies have been open to foreign investment, they have also been more selective and have emphasised developing national (not necessarily state-owned, except perhaps in Taiwan) industrial, technological, marketing and related capacities. In contrast, most rentier entrepreneurs in Southeast Asia have not been obliged to deploy their rents at such ends” (p. 163).

diagnosed and upgraded and fdi attracted, in a way that is in line with advantages and supports the pursued positioning.<sup>13</sup>

Another consideration concerns adaptation. Detected advantages and positioning should be reviewed regularly to ensure consistency with evolving circumstances/stages of development. For example, in order to attract high knowledge intensive fdi, it may be useful to discourage some fdi, which may require rendering such fdi expensive to firms, through for example a high-wage policy – pursued for example by Singapore, Pitelis, (1994), Lall (2000), Fagerberg and Godinho (2005). In addition, care should be taken to achieve a coincidence between what (selected) MNEs require in their quest to optimize locational advantages (see Buckley and Ghauri, 2004), and what the country finds consistent with its advantages/positioning strategy. Such policies may become possible, in an era of “fragmentation” (see Venables 2003) that allows MNEs to separate the value-chain and choose “optimal” locations for each part of their production process.

It is arguable that smaller developing countries have advantages in pursuing such a strategy. Small size may help render identification of competitive advantages and positioning easier. It could also help with implementation – for example diagnose clusters, identify missing linkages, build an innovation system, effect country differentiation. Countries like Albania (for example, through the “Albania 1 Euro”

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<sup>14</sup> The requisite conditions for achieving these are not easy, and are arguably becoming more stringent for reasons related to technological changes (Fagerberg and Verspagen, 2002), but also institutional and international governance-related ones. At the time of its economic development, for example, Japan could get away with pursuing policies that would be considered as anti-competitive under current WTO regulations, and even received US support to implement them. When Washington-consensus-type free markets, free-trade policies are imposed on catching-up countries, this may be viewed as an attempt to “kick away the ladder” (see Stiglitz, 2001; Chang, 2002; and Fagerberg and Godinho, 2005; for a discussion). Boltho and Allsopp (1987) showed that in the 1980s protectionism in the form of non-tariff barriers, was on the increase. On the other hand, the WTO can help participant countries to gain market access, partly offsetting these problems.

initiative), Serbia (through its high-tech IT cluster in Vojvodina), Slovenia and even Greece through their nation-wide cluster diagnosis and upgrading strategies, help show that relatively smaller size can be an advantage - see Pitelis et al (2006). In addition smaller countries are less likely to invite retaliatory moves, as they are too small to impact on world prices. Importantly smaller countries may only be required to make one single choice right, in order to jump-start the process of growth. This could involve developing a single leading cluster and/or MNE, such as Nokia in Finland or Teva in Israel. The success of such companies in turn can allow smaller countries to move faster from a comparative advantage to a competitive one. Last, but not least, in an era characterised increasingly by knowledge-intensity and the importance of intellectual assets, it is arguable that a smaller country can institute faster and easier a successful programme of skill/capability/knowledge-upgrading for its people – sometimes by also drawing on its diaspora. Greece, Israel, Ireland are cases in point.

Another potential advantage of smallness is that it renders community links stronger. This could help with creating conditions of trust that can facilitate clustering (albeit that could be moderated by cultural factors, as “closeness” can also engender interpersonal rivalries). In any event, however, smallness is likely to lead to higher per capita remittances, due to stronger family links, thus helping smaller transition economies. For example, in an IMF (2005) study, countries with remittances higher than 10% of GDP were invariably smaller ones and included labour-exporting transition economies, such as Albania and Moldova. With remittances flows only second to fdi, this issue is surprisingly under-researched; it could well serve as an extra competitive (albeit transitory) advantage for smaller countries.

Clearly the above is not to suggest that small is only beautiful. It is arguable that a major liability of smallness is that it renders the incentive to be corrupt higher, as it can increase substantially the per capita payoff of corruption. We argued elsewhere that corruption which involves not only local politicians, but also MNEs, and which can take many different forms, to include regulatory capture, by local monopolies and foreign MNEs and rent seeking, can be a potent brake to development (Pitelis, 2004). It happens that this is more likely to plague smaller countries, which may offset other advantages of smallness. In addition, Nolan et al. (2008) argue that the “global business revolution” implies that “firms from low-income countries” access to developed country markets has become increasingly dependent upon entering into the global commodity chains of core firms based in high-income countries” (p.33)<sup>14</sup>. This and increasing non-tariff barriers, support the observation of new emerging difficulties for catching-up.

## **V Summary and Conclusion**

We discussed the issue of competitiveness and catching-up in general and for smaller developing countries in particular, paying attention to the role of fdi and clusters in this context. We suggested that extant frameworks for competitiveness lack micro- (firm-level) foundations, which we aimed to provide. In addition, we claimed that competitiveness and catching-up include a value capture (not just value creation) element, usually lacking in the predominantly macro-economic approaches to competitiveness. In this context, lessons can be derived from strategic management to include the issues of positioning, diagnosis and creation of competitive advantages

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<sup>15</sup> Recent research by Monteiro et al (2008), that “subsidiary isolation” can hinder knowledge transfer to more “isolated” MNE subsidiaries. One could surmise that more isolated are likely to be subsidiaries in more distant, smaller developing economies.

and alignment between objectives and means to achieve selected strategies. Fdi and clusters can serve a country's competitiveness, especially when they are combined and aligned with the country's competitive advantages and selected competitive stance/positioning.

For numerous reasons, many already discussed in the literature, but some also overlooked, small countries have some distinct advantages in devising and implementing such strategies. If they address the crucial problem of the higher incentives and payoffs to corruption which they face, small countries could leverage their advantages to achieve competitiveness and catching-up. Small transition economies, which are not landlocked in distant locations, could devise strategies for fdi and/in relation to clusters that can be aligned to their created competitive advantages and competitive positioning to serve the purpose of superior competitiveness, and thus catching-up.

At the same time the margins of opportunity may becoming narrower – not least because of the shifting landscape concerning globalization and global governance, see Dunning and Pitelis (2008). It is arguable that successful catching-up by smaller developing countries could be made much easier, were the international community to appreciate that such catching-up is good for global economic sustainability - this, however, is beyond the scope of this article.

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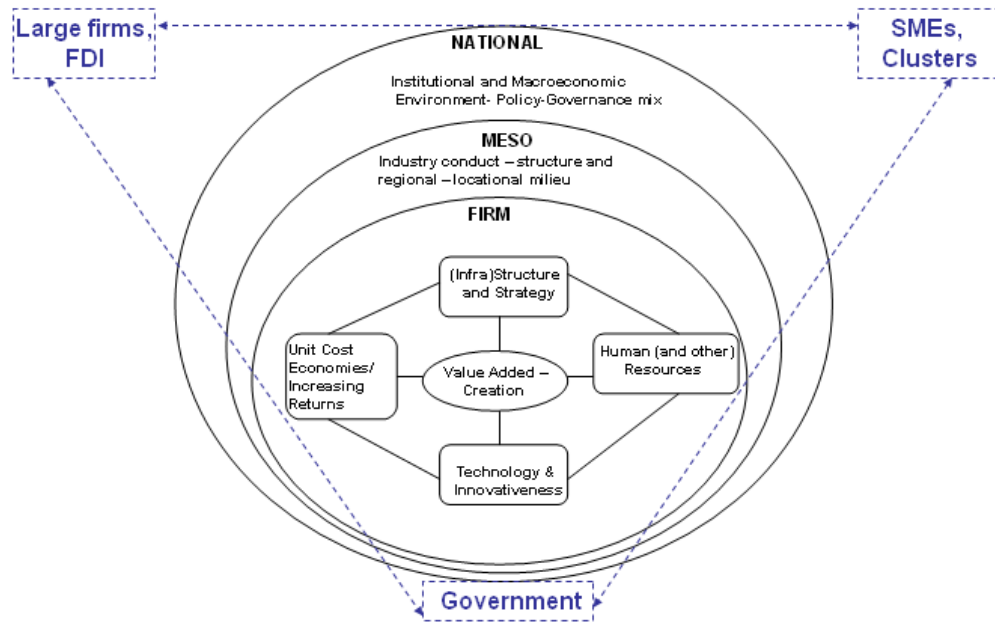
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## APPENDIX

**Figure 1. The wheel of value – Wealth creation at the Firm, Meso and Macro – levels.**



**Figure 2. The Relative Costs/Differentiation (“Image”) matrix and country positioning.**

		Relative Differentiation (“Image”)	
		High	Low
Relative Costs	Low	Competitive	Stuck in the middle (In need of direction)
	High	Stuck in the middle (Losing ground)	Non-competitive