



DYNREG



CITIZENS AND GOVERNANCE IN A
KNOWLEDGE-BASED SOCIETY

**Dynamic Regions in a Knowledge-Driven Global Economy:
Lessons and Implications for the European Union - DYNREG**

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**The sustainable competitive advantage and
catching-up of nations:
FDI, clusters and governance**

Christos Pitelis, University of Cambridge

Aims

- Revisit issues of Value Capture, Value Creation, their interrelationship and their impact on global sustainable Value Creation, Competitiveness and (governance for) Catching-up.

Value Creation

- The genesis of additional perceived worthiness to users of a product and/or service as a result of price paid and/or increased attractiveness, effected through:
 - Cost / price reduction
 - Differentiation / quality enhancement

The Resource-Allocation Perspective

- Value creation, is the result of the efficient allocation of scarce resources, effected through:
 - Rational agents and/in optimal market structures (perfect competition or perfect contestability)
- Variants
 - Mainstream neoclassical
 - Transaction costs

Resource-Allocation: Building Blocks

- Market (versus government) failure-based
- Competition is a type of market structure
- Technology-Innovation is given in the short-run
- Perfect competition and comparative advantage-based free trade can optimise global resource allocation and effect global value creation

Yet

- Intertemporal efficiency, market structure and innovation
- External economies (location), increasing returns, innovation and human resources matter
- “Strategic trade” policies possible (but ineffective and/or undesirable?)

The Resource-Knowledge Creation Perspective

Common themes

- Resource-knowledge creation and innovation in the context of dynamic, evolutionary change
 - Procedural-bounded rationality
 - Imperfect markets, hierarchies, institutional failures

Variants

- Resource-based, system-based, Schumpeterian-evolutionary, Marxist

Resource Creation: Building Blocks

- Competition as a process
- Innovation and/as 'creative destruction'
- Co-operation matters
- Competition and co-operation (co-opetition) may enhance innovation
- Technology and innovation are key sources of value creation
- Non-market institutions and system-wide linkages



Conclusions from Resource - Value Creation Perspective

- Co-opetition and (for) innovation leads to value-creation
- Transient monopoly is incentive for, and a reward to, successful innovators – it allows value capture
- “Big business” competition is best for innovation
- System-wide linkages important for value creation

An Example: Competitiveness

- Definition:
 - Differential productivity, value-added - wealth capture, vis-à-vis other economic units (firms, regions, nations etc)

- Mainly refers to
 - Business
 - Government

Some Extant Models of 'Competitiveness'

- Neo-classical – “Washington Consensus”
- Japanese-Far Eastern
- Porter’s “Diamond”
- National Innovation Systems

Competitiveness: The Neo-Classical Model – Static

- Given technology
- Competitive markets
- Free trade
- Non-interventionist government



Competitiveness: The Neo-Classical Model – Intertemporal

- Imperfect competition
- (possible, but not desirable) Strategic trade
- Link between market structure and technology, increasing returns, spill-over effects of technology

Competitiveness: The Neo-Classical Model – A Suggestion

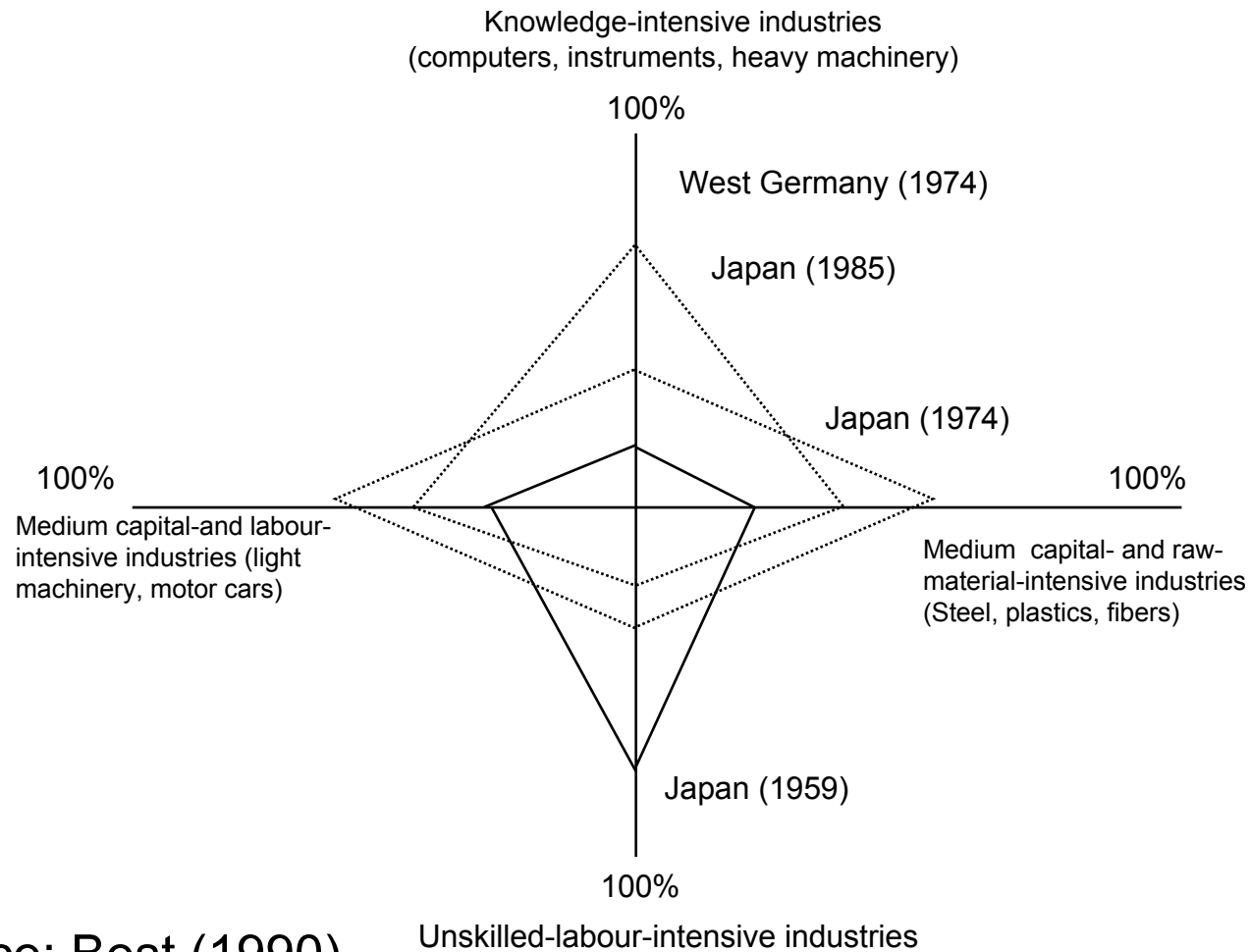
- Inconsistent theories (notably static versus intertemporal).
- Divergent practices (for example European industrial policies).



Competitiveness: The Japanese - Far Eastern Model

- Business-government partnership for competitive advantage
- Targeting of promising sectors-firms
- (Managed) Big-business competition and managed trade
- Support of small and medium-sized enterprises (SMEs) - notably Japan
- Technology transfer (through inward investment, licensing, etc.), market share, innovation-based competition

Exhibit 1 : Competitiveness - The Japanese Approach?



Source: Best (1990)



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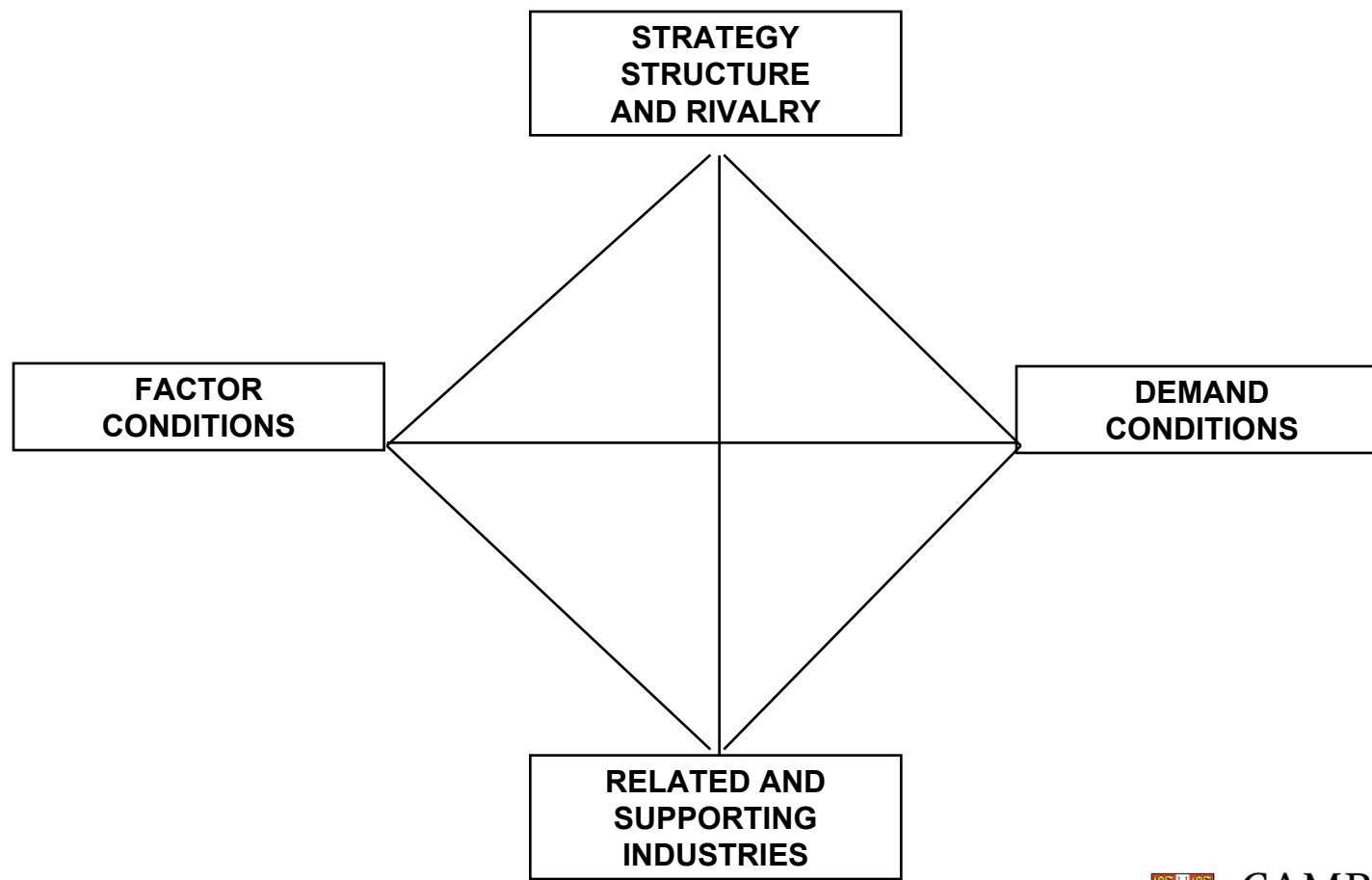
Competitiveness: Porter's 'Diamond'

- Factor Conditions
- Demand Conditions
- Strategy, Structure and Rivalry
- Related and Supporting Industries

Asserts

- Interaction between (mainly) last two creates “clusters”
- Clusters and other “diamond” forces exert positive impact on innovation and productivity growth

Exhibit 2: The Determinants of National Competitive Advantage (Porter's 'Diamond')



Competitiveness: National Systems of Innovation (NIS)

- NIS: A critical mass of innovation – promoting (or retarding) institutional, organisational-governance-mix (“mega-cluster”)
- Government, NGOs, social capital, institutions matter
- Appropriate (strong) NIS promote innovation and productivity growth

Problems with Existing Models

- Absence of commonly agreed - upon conceptual framework
- Absence of links between competitiveness at the firm, regional and national levels
- Insufficient analysis of determinants of value added and competitiveness / value capture.
- Insufficient treatment of the issue of sustainability
- (Global) Governance not anchored within a coherent framework

Towards a Meta-Classical Synthesis

- Efficient resource allocation and knowledge-innovation (resource creation) in context of
 - Procedural-bounded rationality
 - Imperfect markets, hierarchies and comparative institutional capabilities and failures

- Analysis of the determinants of value-wealth at firm, regional and national levels

Our Objectives

- Develop a conceptual framework for Value Creation by exploring its nature and determinants
 - Discuss value capture
 - Discuss the link between value capture and sustainable value creation
 - Discuss sustainability – compatible (global) governance
 - Discuss types of (dynamic) capabilities required for each objective, and actors in determining the division of labour between them

Figure 1: Four 'first-order' Determinants of Value Creation – Firm Level

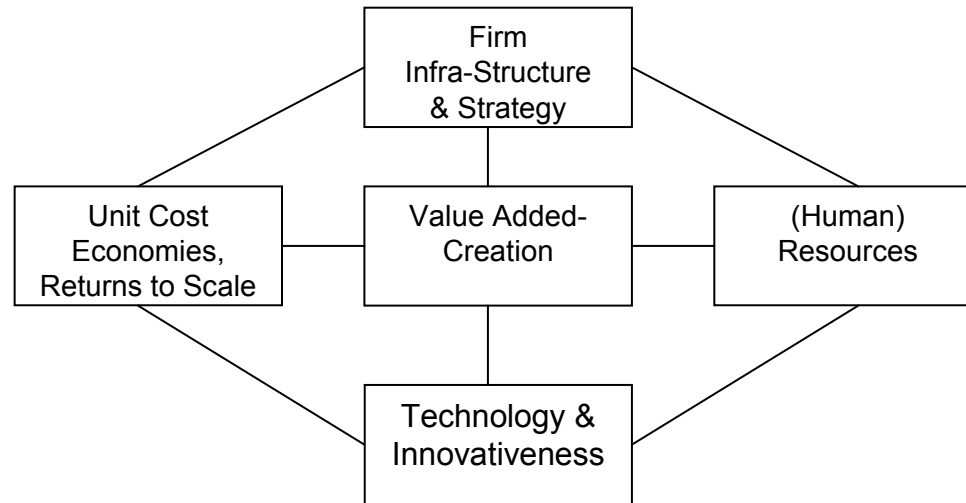
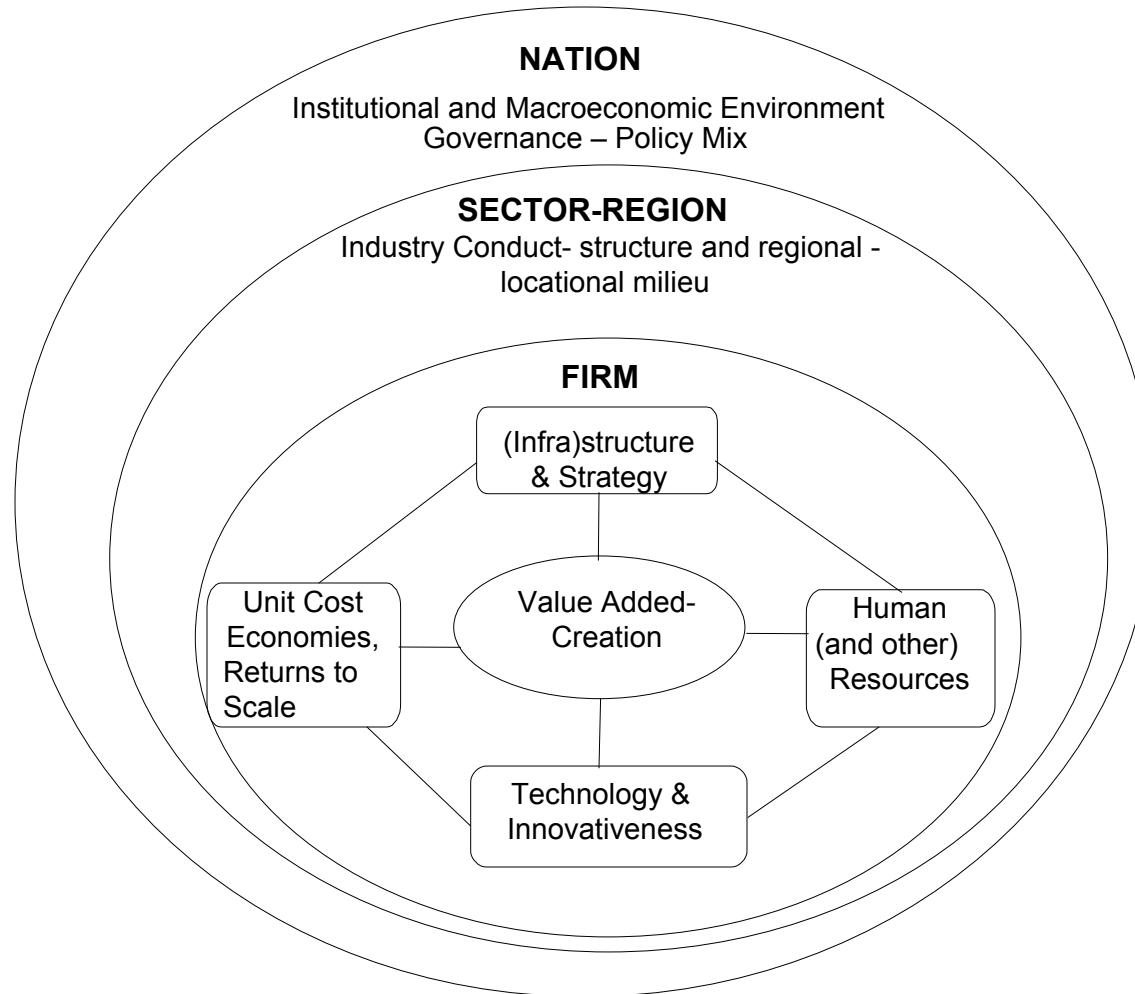


Figure 1, summarizes four 'first-order' and interacting determinants of value creation at the level of the firm

- The four determinants are derived from an eclectic integration and extension of IO and (strategic) management literatures
- Other factors can affect value creation indirectly, through their effect on the four 'first-order' determinants

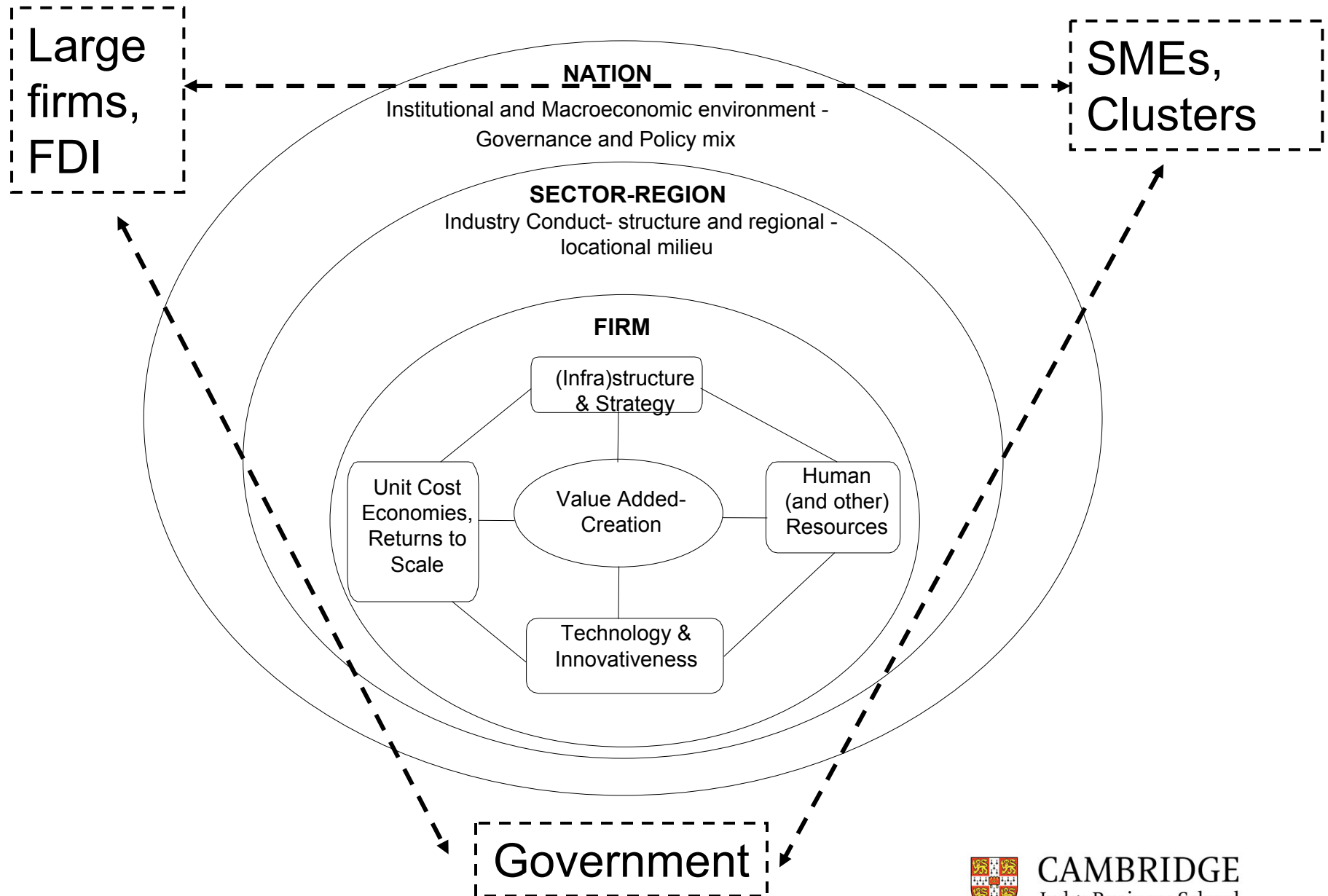
Figure 2: The Determinants of Value Creation at the Firm, Meso and National Levels



Main 'Actors' of Value Creation

- **Firms, for example through**
 - Large size and foreign direct investment (FDI) by multinational enterprises (MNEs)
 - Clusters of small and medium-sized enterprises (SMEs) – agglomeration effects
- **Government policies**
 - May impact on all determinants of value creation

Figure 3: Actors of Value Creation



Value Capture

- The appropriation of created value by economic agents
 - No theory on nation-wide value capture that builds on firm-level theories

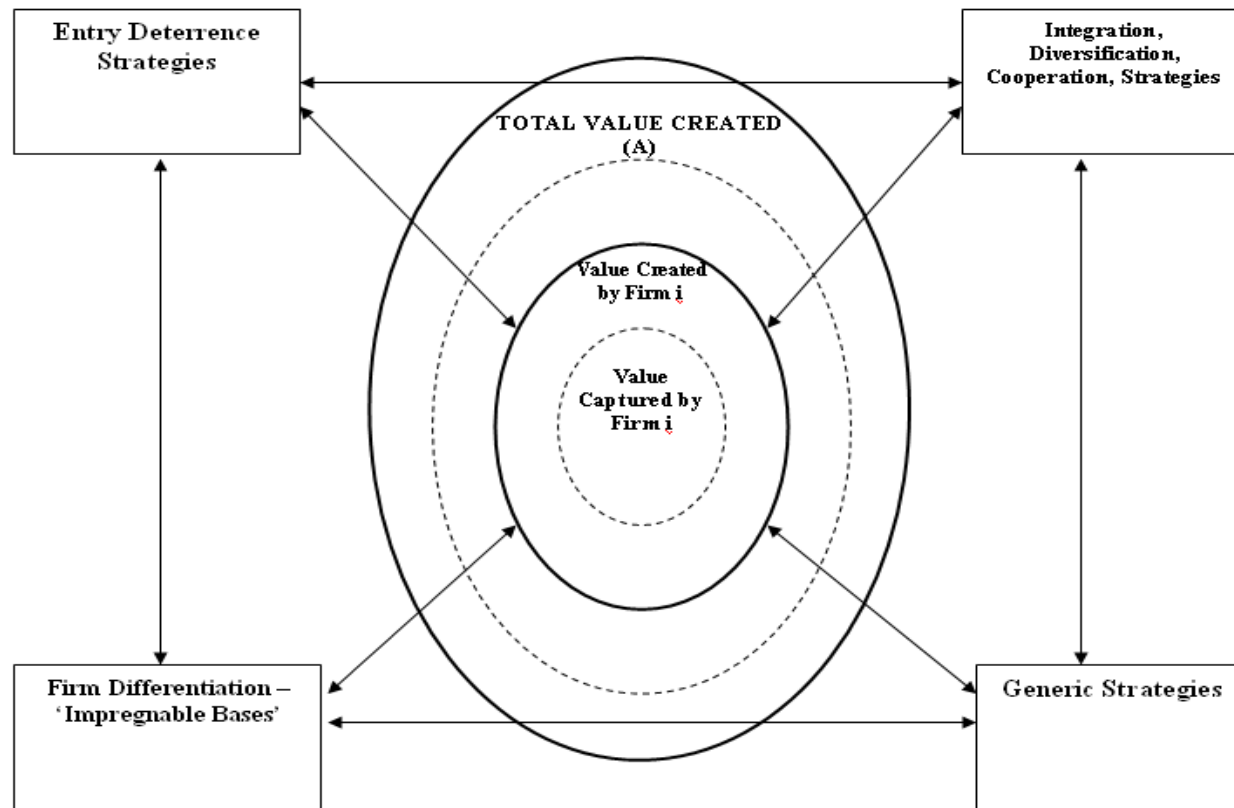
Value Capture by Firms

- Firms can capture less, equal or more value than the one they create through their activities. The size of the pie captured depends on factors such as:
 - Firm’s market power created from structural and strategic barriers to entry
 - Firm’s ability to create “impregnable bases”, i.e. technological know-how-based bundles of tacit and codified knowledge that are hard to imitate

Value Capture Strategies

- Four major types of value capture strategies
 - Entry deterrence (Bain, 1956), based on barriers to entry, such as economies of scale and product differentiation
 - Impregnable bases (Penrose, 1959), such as intra-firm technological resources that lead to firm differentiation and/through intra-firm barriers to entry
 - Generic Strategies (Porter, 1980)
 - Integration\Cooperation and Diversification strategies (Chandler, Penrose, Williamson, IO)

Figure 4: Four Major Strategies for Value Capture



- Four major types of strategies affect value capture; (Strategic) Entry Deterrence, Firm Differentiation, ‘Generic’ Strategies and Integration, Diversification and Cooperation Strategies

–The four types interact and they may also help create value



Wealth Capture in The Global Economy

Wealth flows to:

Those that can innovate
Inside the paradigm



Intel

Those that have patented technology
needed to practice well accepted
(standardized) technology



Qualcom
Rambus

Those that create hard to imitate
high performance business models



Salesforce.com
Dell Computer
WallMart

Those that can orchestrate assets
and find new combinations



Apple



Catching-up

- Catching-up by firms and nations requires differential value capture-competitiveness
 - To effect this countries need to decide on their competitive advantages and competitive positioning (in addition to the vehicles and policies)
 - The “Relative Differentiation/Relative Costs matrix” can be of use in choosing the positioning

Figure 5. The Relative Costs/Differentiation (“Image”) Matrix and Country Positioning

Relative Differentiation (“Image”)

		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

(Dynamic) Capabilities

- Value Creation, Value Capture and Catching-up, require different firm-level (dynamic) capabilities – potential ‘trade-offs’
 - Differential (Dynamic) capabilities may help explain the division of labour between private, public, hybrids

Sustainability of Value Creation

- **Sustainability:** When the satisfaction of an objective in the present does not undermine the longer-term satisfaction of the same objective

- **Dimensions:** Economic (our focus), Social, Environmental

Constraints on Sustainability

- **A Key Constraint**

- Differing objectives (pursuit of value capture) by different groups, organisations, nations => ‘agency’ and need for objective alignment.
 - Also time inconsistencies, mistakes.

- **Instances**

- Intra-Country: Monopoly, Regulatory capture – corruption
- Inter-Country: Protectionist and strategic trade policies, especially by developed countries, Market power as a condition for FDI by MNEs

A Hierarchy of Agencies

- Sustainability requires addressing hierarchy of agencies between (at least);
 - Firm and its shareholders-stakeholders
 - Nation and firm
 - Individual nations and the world



The Local Dimension and Clusters

- Location is of critical importance for wealth creation
- Geographical clusters can impact on wealth creation
 - Clusters are (geographical) agglomerations of firms (and other organizations-institutions) linked horizontally and (and/or vertically) intra- (and/or inter-) sectorally, in a facilitatory socio-institutional and cultural milieu, which compete & co-operate (co-opete) in (inter)national markets



(Dis)Advantages of Clusters

Disadvantages

- Clusters are history-specific, thus hard to ‘transfer’
- ‘Success’ can breed failure (through “congestion”, institutional sclerosis, etc)

Advantages

- Clusters improve innovation, productivity & competitiveness at the regional & national levels, they create employment and can lead to convergence
- Clusters are more bottom-up, thus help deepen democracy

Despite Problems, Clusters are Important

- Alternative to clusters is large (multinational) firms. Their poor record with sustainability and democracy implies that, despite 'problems', clusters are important

Some Requirements

General

- Address governance issue

Specific

▪ Intra-Country

- Fight corruption (e.g., regulatory capture, MNEs capture, rent seeking)

▪ Inter-National

- Recognise 'infant' entrepreneur, industry, firm and 'cluster' argument – promoters of longer-term value creation
- Tolerate 'strategic trade' by transition economies, not by developed ones
- Recognise that need for 'level playing field' requires tolerance of apparent inequities in favour of worse-off

Policies for Sustainable Value Creation

- Sustainable Global Value Creation, in the context of “The Wheel” effected through:
 - Horizontal measures (soft and hard infrastructure)
 - Technology transfer- inward FDI
 - Clusters of SMEs
 - Inter- and intra-firm and sectoral restructuring for innovative, ‘value for money’ products and services
 - Innovation enhancing competition, co-operation and regulation policies
- ‘Regions of Excellence’ (‘mega-clusters’) can encapsulate all four aspects, thus serve as strategy for sustainable value creation

Strategy and Policies

- Compatibility between macroeconomic and supply-side policy
- Institutional context – removal of (anti) incentives – institution building
- Competition (co-opetition for innovativeness) and regulation policy
- Environmental protection
- Distribution of income (intra- and inter-country) – non “excessive”

Possible Solutions to Sustainability?

- Enlightened self-interest by agents (e.g. firms, nations)
 - Government policy-regulation
 - Global Hegemony (but failures of hegemony-challenge to democracy, top-down, thus limited sustainability)
 - Pluralism and diversity-stakeholding - more bottom-up, democratic and sustainable (thus preferable)
 - An accountable global monitor (international organization à la WTO?)
- All require differential capabilities

Differential Capabilities and/or Economic Sustainability

- Private- DCs to capture (profit) from value creating advantages
- Public – DCs in legitimacy, institutional and macroeconomic and overall policy for value creation, subject to satisfying value capture needs of state (Principals) – North
- Hybrid (e.g. NGOs, consumer-association) – DCs in pursuit of sustainability?

Proposition

In the context of

- Innovation-knowledge promoting governance, and
- Recognition of the ‘hierarchy’ of agencies
 - Institutional and organisational diversity and pluralism, to include networking and (mega-) clusters, may help generate ‘mutual stewardship’ and ‘monitoring’ and (thus) serve as a policy for (glocal) governance for sustainable value creation
 - This requires a new type of ‘governance’ and government – an active orchestrator, knowledge-broker, conductor and public entrepreneur
 - And these require different and indeed differential dynamic capabilities, to help effect the outcomes

Conclusion

- Enlightened self-interest and National Government regulation policies, helpful, but not sufficient (given self-interest – value capture)
- Diversity and pluralism, to include networking and clusters, can serve to generate ‘mutual stewardship’ and can serve as an approximation for (glocal) governance for sustainable value creation
- Accountable ‘global monitor’, might be useful to mould and enable the process to marry direction to democracy – these could include an ‘International Agency for Economic Sustainability’
- All these require the identification and leveraging of different and differential capabilities