

Politics, Path Dependence and Public  
Goods

*The case of International Container Ports*

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## **Declaration of Work**

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**For Dad: “Mol an óige agus tiocfaidh sí”**

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## Abstract

### Politics, Path Dependence and Public Goods

#### *The case of International Container Ports*

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Globalisation, in the liberal paradigm, implies a trend towards common practices in political, cultural, and economic activities. Scholars disagree on whether we are observing the evolution of an international society, albeit richly diverse, or resilience in nationalist ideas that result in significantly diverse units within an international system. This thesis approaches this broad question from a comparative political economy perspective focussed on a segment of the international maritime trade market.

Amidst the political rhetoric of ‘selling the family silver’ and ‘loss of sovereignty’ to the market there are observable policy differences across nations, between sectors and between levels of the economy. The differences are also observable over time. Container ports are uniquely suited to understand the comparative political economy of policy change because they are at the intersection between the international forces of globalisation pulling one way, and the domestic forces such as labour offering resistance. I employ statistical methods on original time series cross section data complemented by comparative case studies for the United Kingdom, Indonesia, and South Africa.

The propositions, supported by the quantitative and qualitative evidence, are that domestic politics still has significant influence on international container port policy outcomes; that dock labour will resist, modify, and delay policy shifts; and policy outcomes are path dependent that cluster around regional norms of behaviour.

The thesis contributes to the literature by way of an original study of maritime trade producing innovative data and metrics for policy outcomes; an extension of a regional typology for port governance policy frames; the application of path dependency theories to national policy evolution; and a study of labour interest group resistance to policy change.

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## Maritime Terminology

Agent - cargo	Person who acts on behalf of the owner of the goods
Agent - clearance	Person who arranges for customs clearance on behalf of the owner of the goods
Agent - ship	Person who acts on behalf of the ship owner
Berth	A specified length of quay wall where a vessel can tie up
Breakwaters	Physical structure that protects port infrastructure from the sea
Cabotage	National shipping law that reserves all, or a portion, of cargo for nationally owned vessels
Common User	A term in ports to define areas not dedicated to a particular operator/stevedore
Deadweight Tonnage	A measure of a ship's carrying capacity
Demurrage	Costs of a ship-owner associated with a delay to a vessel in port
Dredged channels	A section of the entrance to a port for vessels that is kept to a specified depth
Freight forwarder	Person who organises the shipment of cargo for an owner
Gross Tonnage	A volumetric measure of the total enclosed spaces of a vessel
Hanseatic ports	A series of ports in Northern Europe that services the trading alliance of the same name in the middle ages
Infrastructure	The fixed and immovable parts of a harbour such as land, roads, quay walls and breakwaters
Landlord Port	A form of port model where ownership of infrastructure is maintained by the State, and port services are managed by the private sector
Logistics	The process by which goods are managed from their point of origin to their end destination through a series of transport stages.
Mode - cargo	There are a number of distinct cargo groupings. They are LoLo for containers that are loaded on and off a vessel by crane; RoRo where containers, people, and vehicles are driven on and off a vessel; and bulk in liquid, solid or loose (break) forms.
Mode - transport	Cargo and people can move across distinct categories of transport such as sea, air, rail, and road
Net Tonnage	A volumetric measure of the spaces enclosed for cargo purposes
Node - transport	This is the point where cargo and people transfer from one transport mode to another.
Operating Port	A form of port model where the port remains fully in the ownership of the State and is in turn operated by the State
Port Authority	A body established by law to manage a port, or ports, on behalf of the State
Port Capacity	Generally refers to the engineered volume capacity for cargo in a port
Port Services	The range of services provided to ships and cargo in a port e.g. towage, stevedoring

Quay Walls	The basic physical infrastructure provided to berth ships
Regulator (Economic)	Generally refers to a State appointed body that sets rules, including sanctions, and grants approvals for pricing and investment proposals submitted by Port Authorities
Scheduled Service	A vessel service with defined ports to visit on a defined timetable
Stevedore	Person who provides cargo handling service
Superstructure	The assets that are generally moveable in a port e.g. cranes
Terminal Operator	Person who manages a defined space in a port who is generally the stevedore
Throughput	A measure of cargo volume generally expressed as units or metric tons per annum
Tool Port	A form of port model where all the assets are owned by the State but they are in turned leased to the private sector

## Abbreviations

ADB	African Development Bank
ANC	African National Congress
CIRI	The Cingranelli–Richards Human Rights (dataset)
CME	Coordinated Market Economy
CPE	Comparative Political Economy
ECB	European Central Bank
EFW	Economic Freedom of the World (dataset)
ESPO	European Seaports Organisation
FDI	Foreign Direct Investment
FEU	Forty-foot Equivalent Unit
GDP	Gross Domestic Product
GNIPC	Gross National Income Per Capita
ILO	International Labor Organisation
IMF	International Monetary Fund
ITO	International Terminal Operator
JICT	Jakarta International Container Terminal
LDV	Lagged Dependent Variable
LME	Liberal Market Economy
MENA	Middle East and North Africa
MNC	Multi-National Corporation
OECD	Organisation for Economic Cooperation and Development
OLS	Ordinary Least Squares
PPIAF	Public-Private Infrastructure Advisory Facility
SOLAS	Safety of Life at Sea
TEU	Twenty-foot Equivalent Unit
TNC	Trans-National Corporation
TSCS	Time Series Cross Section
UNCTAD	United Nations Conference for Trade and Development
VOC	Varieties-of-Capitalism
WBPRTK	World Bank Port Reform Toolkit

## Chapter 1: Is economic sovereignty lost forever?

Freight containers are a late twentieth century innovation sparking a dramatic technological shift in international shipping, trade routes, and seaports. International container ports represent an excellent symbol of twentieth century globalisation (Cullinane and Song, 2002:59). They reflect investments by global maritime enterprises, globalised production processes, technology transfers, and growth in global trade flows. They also reflect trends in the privatisation of public services. However, a container port is not a single economic entity but rather a logistics node where multiple economic actors provide services to cargo and vessels.

Maritime economics literature has categorised port privatisation based on an assessment of the operational and functional structure of the port organisation (Baird 1995, 1999; Baltazar and Brooks 2001; Bichou and Gray 2005). This approach has the merit of parsimony, is useful in efficiency studies, but is problematic in a comparative cross-national test. Political science literature tends to consider public infrastructure privatisation in macro-economic terms such as revenues generated by asset sales as a proportion of national income. Again, these have the merit of parsimony but are problematic in explaining policy variation. Both literatures apply different definitions of privatisation depending on the research context. What is consistent is that the line between states and markets has shifted through policies of liberalisation, deregulation, and asset sales. All imply a shift in power. Privatisation is defined as a broad concept herein represented by the transfer of functions to the private sector. Thus, this research blends ideas from port management, maritime economics, and the political economy of policy change to bring additional explanatory power to questions of globalisation and economic policy reform.

Explaining the mechanisms and determinants of domestic economic policy development across states with varied structures and actor configurations, remains an enduring question. Developing robust research tools to answer this important question are also problematic. By measuring policy outcomes as a point along the state to market continuum, it is possible to compare countries with varied political and economic structures over an extended period. This industry level analysis will provide an opportunity to consider how and why policy continues to vary across nation states.

## 1.1. Trade and Interdependence

Maritime trade appears in the earliest accounts of capitalist political economy, as a market driven mercantile enterprise transporting goods between production and sale; and thus a considerable source of power for the British Empire (Smith, 2009)<sup>1</sup>. In twentieth century international political economy literature, maritime networks are again conceptualised in terms of political and economic power (Strange, 1994, 1996). Ports represent the interface between land and sea, international and domestic, and are nodes in global shipping networks. Ports are a significant issue for international institutions with the World Bank Group and UNCTAD developing reform advice and training programmes (World Bank Port Reform Toolkit (WBPRTK)<sup>2</sup>, 2003; UNCTAD Port Management Training Manual, 2009)<sup>3</sup>.

The industry has evolved from port cities operating as quasi states, connecting trade routes, which are now trade networks, through significant technological innovation, and institution liberalisation that often takes the form of privatisation. Most of this is very recent in historical terms. For example, the shipping industry saw very little technological development “during the three thousand years that separate the ‘*biremes*’ of the Phoenicians from clippers on the Atlantic” (Sletmo, 1999:17). The critical development that fuelled recent change in the maritime sector was the arrival of the standardised freight container in the late 1950’s. This provided merchants with the capacity to move merchandised cargo faster, more reliably, and more cost effectively to markets further away from production than had previously been imagined. It drove dramatic logistical changes in both the shipping and the port market and signalled the development of a new form of cargo handler in the port lexicon: the container terminal operator. It arrived at a significant point in economic history as liberal economic ideas diffused globally and pushed for modernisation and privatisation of state controlled entities. This growth in trade and technological development also facilitated a dramatic shift in trade, in particular to Asia. This short account of the maritime industry, framed in an era of trade interdependence and ideational globalisation, parallels the shifts in geo-political sources of power; and shifts in power between capital and labour.

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<sup>1</sup> This version of Adam Smith’s book on the ‘Wealth of Nations’ is an online edition dated 2009.

<sup>2</sup> The source for this material is a downloaded ‘CD-ROM’ version, undated. The publication date is taken from an e-book dated 2003, available from [ppp.worldbank.org](http://ppp.worldbank.org).

<sup>3</sup> Access to this propriety material is based on access as an instructor on the programme. No direct reproduction of material is used in this work. Where specific references are used, they are based on material prepared by the author for the manual.

International container ports provide an ideal perspective into late twentieth century globalisation, and the political conflicts that it generates. Based on visits to a range of ports in Europe, Asia, Africa, and South America over the period from 2005 to date, it is clear that port governance structures have almost universally changed. It is also clear that change is almost universally in one direction towards greater private sector participation (Slack, 1993:586). What is also clear is that, while there are many characteristics in common between ports, there is no clear common port governance configuration. Port managements will usually refer to politics as the cause of sub-optimal policies; and therefore the reasons for this policy variance are worth exploring through a political lens. Thus, the general research question is: why does port policy variance endure across maritime nations? To answer this there are a number of prerequisites, most important of which is a political theory as to how and why policy does change. Therefore the specific question becomes: What are the political determinants of policy change in the international container port sector?

Globalisation in the liberal paradigm implies a trend towards common practices in political, cultural, and economic activities. We are either observing the evolution of an international society, albeit richly diverse, or resilience in nationalist ideas that result in significantly diverse units within an international system. Perhaps there can never be a definitive response to such a statement given the variety of institutional structures, domestic and international, in the international political economy. One apparent certainty is that “the process of economic globalisation is simply imposing constraints on the ability of states to govern the economy” (Adserá and Boix, 2002:255). A valid response to such certainty is that states may be constrained but their actions are likely to be a function of their particular circumstances. The globalisation narrative argues that governments “competing for mobile economic resources are thought to have little choice but to engage in a policy race to the neoliberal bottom, imperilling the efficacy and the legitimacy of the democratic process itself” (Garrett 1998:788). This liberalisation “implies a greater role for markets and regulators, at the expense of state discretion to intervene and corporatist bargaining” (Streeck and Kenworthy, 2005:459).

Globalisation of trade and ideas are not new themes. A more technologically significant period of trade growth occurred in the period from 1870 to 1913: the Belle Époque (Jacks and Pendakual, 2010:185). The period starting in the last quarter of the twentieth

century is also characterised by trade growth and technological innovation, mediated through the growing reach of capitalism. As an analytical tool “capitalism is a legal regime, an economic system and a social formation that unfolds in history and that is built upon two basic social relations: market competition and the capital/labour nexus” (Boyer, 2010:63). International container port policy regimes provide researchers with an opportunity to study mechanisms of change at the public infrastructure sector level in the economy, to add illiberal states to the normal developed country dataset, and to examine the role of domestic political determinants like dock labour in shaping policy outcomes. Of particular value is the opportunity to develop a measure of policy in terms of a continuum of control from states to markets. To do this requires a theoretical construct that provides an empirically robust basis to answer the research question.

## **1.2. Path Dependence and port liberalisation**

There is a range of theories of change broadly labelled as institutionalism. Historical institutionalism provides a means to take a mixed structural and agency perspective of policy dynamics, within the domestic frame. The international dimension is not immediately of concern in that all ports have responded in some fashion to international pressures. The interesting point is that they all seem to have developed their own unique solutions. Variety and divergence are not new ideas in this research frame. Change, as argued in this thesis, is a function of political institutions that conditions the formal decision process, economic institutions that condition the market response and constrain policy options in a historical policy path, economic performance that affects the policy makers’ agenda, and domestic interest groups that engage to protect their own interests. Specifically dock labour will resist privatisation where it has the institutional capacity to do so; and port policy will reflect the common histories of neighbouring states and converge within these groupings.

This reliance on divergence and variety fits with the economic “intuition that more than one model can deliver economic success” (Hall and Gingerich: 2009:449). It also calls on theories of change that are salient to an era of globalisation (Amable, 2003; Amable and Palombarini, 2009; Crouch, 2005). Historical policy paths are relevant given there are “strong grounds for believing that self-reinforcing processes are in fact very widespread in political life” (Pierson, 2000:78). Varieties of capitalism theories (VOC) are of value to a study like this as they take the idea of more than one form of capitalism and build typologies based on ideas of historical and social context, and thus provide a

basis for developing country typologies. It is likely that the pattern of policy development in the international container port sector is analogous to the idea of different macroeconomic models; and a unique opportunity comes here with the inclusion of non-democratic and developing states.

The twin pillars of container port development in response to globalisation of trade and ideas are the changing form of port governance policy, and the enduring resistance of labour to privatisation. These are eminently political as privatisation is “an intensely political phenomenon” (Feigenbaum and Henig 1994:186). There are a number of potential explanations for policy variety. First, mobilised domestic actors can and will resist privatisation in ports. The data shows that both domestic capital and dock labour institutional power do resist and have a marginal impact on the scale of transfer to the private sector. Second, nation-states with common historical and social contexts will develop similar policy solutions across their container ports and the data supports this regional convergence hypothesis. Third, security interests are historically relevant in ports where the military has a significant role in the economy then they are likely to resist change. Financial crisis events may be an explanation for change. I argue that the time to develop port reform projects, including generating a response from the market, are significantly longer than the average duration of a financial crisis and therefore are unlikely to influence port policy change. Finally, domestic political structures are likely to have an influence on reform efforts. References to levels of democracy and constraints on the decision process, known as veto points, tend to support theories of change as an event. This work tests their value as predictors of policy positions and shows that higher levels of democracy are associated with higher levels of market power. It also shows that where veto points are high then the level of transfer to the market will be less. Both labour resistance and regional convergence are explored in detailed case studies as they offer an industry level insight into policy development in the case of public infrastructure.

For labour, it is important to understand that interests are in conflict; which is better suited to understanding the resistance to a “power shift” through privatisation (Feigenbaum and Henig, 1994:200). The fears of dock labour that the forces of globalisation would result in major job cuts and social dislocation appear real in many jurisdictions. Where disproportional social and economic costs occur then there will likely be political conflict (Henisz and Zelner, 2006:268). Indeed port reform “is often

strongly associated with dock labour reform” (Notteboom, 2010:60). In the United Kingdom, it is estimated that the dock labour reforms resulted in the dismissal of almost eighty per cent of dockworkers (Turnbull, 2012). On the other hand, there was a compensation arrangement in the United Kingdom; and in some other countries, such as Germany and the United States, the pay-off was exceptional. The labour market has also evolved. Valencia, Spain has more than ten per cent of dockworkers who are women (Turnbull, 2012:519). Yet labour continues to resist the effects of globalisation (Turnbull, 2000; Port Strategy, 2013).

The logic of path dependence is that policy makers are constrained by past decisions. The limitation in the choices available implies limited divergence from institutional configurations in the economy. Logically nation states with similar histories and institutional configurations will tend to adopt similar response to the demands of interdependence. Therefore, regional rather than global convergence is a significant finding.

### **1.3. A research strategy**

The thesis contributes to the literature by way of an original study of maritime trade producing innovative data and metrics for policy outcomes; an extension of a regional typology for port governance policy frames; the application of path dependency theories to national policy evolution; and a study of labour interest group resistance to policy change. The thesis proceeds with six substantive chapters.

Chapter 2 provides an account of policy theories and explores many of the theoretical concerns in comparative political economy. It concludes with an account of the theoretical propositions specific to the research question. In Chapter 3, this theoretical construct is drawn out in further detail in order to identify the most appropriate research strategy to test the hypotheses. It includes an account of the variable specifications that are appropriate to the process model. It lists the countries that are included in the study and the basis for their selection. Lastly, it describes, and proposes solutions to, the many identified methodological issues relevant to this research in a mixed method strategy.

Chapter 4 is devoted entirely to the construction of the dependent variable. This is a significant contribution to the literature as it measures the extent to which power has shifted from states to markets. It is a continuous metric of policy form rather than a measure of change events more typical of the macroeconomic institutional literature.

The chapter also describes the internal policy dimensions of the container port market, and the complex web of actors and services that depend on the policy outcome. Globalisation of ideas such as privatisation is a common theme, however, in the port context, the deconstruction of the public goods idea requires explanation; and the chapter considers how and why this occurred.

Chapters 5 and 6 represent the evidence gathering in this work. The first is the quantitative analysis and tests the hypotheses through a number of regression models. The second will trace the evidence in a narrative of change. The focus of the analytical narrative is on exploring the results from the data modelling further in a wider testing of the hypotheses.

Throughout the thesis an eclectic mix of academic disciplines, which are pertinent to the subject matter and this author's industry experience, form the foundations for the research. They include port management, maritime economics, and comparative political economy.

## **Chapter 2: Privatisation of public infrastructure as a response to globalisation**

Container ports are highly integrated into the world economy in countries with varied political structures, democratic and autocratic. The largest group of international ports function with high levels of integration into global trading networks. In policy terms, States must define their relationships with the global capitalist system through institutions, understood as collective rules and practices. Countries, no matter what their interests, will adopt port governance policies that enable capitalism to function without necessarily liberalising their wider economy, or other market dimensions of their port sector. What is also interesting is that the selected countries do not necessarily subscribe to the normatively driven modernisation thesis to organise their ports in accordance with leaders in western industrialised states or indeed World Bank recommended governance structures (WBPRTK, 2003).

One of the significant trends in political economy in recent decades is the transformation of the state in terms of infrastructure and public service provision through asset sales, market liberalisation, and deregulation; broadly defined as privatisation. Political science seeks to explain how and why such a trend developed and diffused across the global economy; and how and why nation-states responded. In this chapter, neo-institutional arguments, characterised as path dependency, are offered as explanations for this policy variance. The hypotheses focus on the resistance offered by domestic interest groups to privatisation and the political context in which the policy is formulated and implemented.

Policy trends are not new. Free trade as a policy idea spread about the globe as Britain set the trend in the late nineteenth century. Britain also led the trend in public service privatisation sales in a later wave of globalisation of the late twentieth century (Feigenbaum and Henig, 1997; Pettit, 2008). Ideas such as deregulation of financial markets, open economies for trade and capital, independent central banking, light regulation of financial markets, are all ideas that diffused globally (Cohen, 2008). Globalisation can be viewed through two conceptual perspectives: first, as an exogenous liberal pressure to develop international governance regimes that results in a loss of sovereignty from the domestic and the civilisation of states in an international society; and second, as an internal political reaction to reduce the power of interest

groups resulting in the de-civilisation from within (Gill, 1995). This thesis approaches this broad research question from a comparative political economy perspective focussed on a segment of the international maritime trade market. This reductionist approach is consistent with the literature and seeks to develop qualified theoretical arguments (Cohen, 2008)

To consider ideational diffusion, specifically public service liberalisation, in the global economy requires a test subject that is suitably global and varied politically. International container ports are today functions of trade, capital, technological and informational globalisation. The largest of them function within liberal and illiberal political settings and their governance frames do differ. This is a significant research opportunity to examine institutional variety and change in the global capitalist system.

The propositions herein will examine the role of domestic interests as a constraint on policy action for international container ports; and consider the argument that “privatization is based on historical circumstances; no single set of phenomena can adequately explain the drive to privatize” (Feigenbaum and Henig, 1997:339). This chapter will examine leading literature and isolate the theoretical frames that are relevant to the industry topic and the research questions. Literature on privatisation based on macro-economic comparisons of partisan politics is contrasted with path dependency theories that focus on coalitional politics and historical institutionalism, for explanations of change in the political economy. The arguments that evolve from the literature review are that policy divergence can be partly explained by the politics of coordination; and that there is some regional convergence where institutional configurations cluster about common historical and social characteristics.

This chapter proceeds with an examination of the literature on privatisation as it relates to public infrastructure, and specifically international container ports. These questions of change are then situated within the broader globalisation of ideas debate. Historical institutionalism provides the foundation of the thesis propositions, and is discussed in detail in the next section. Two themes emerging from the literature review are discussed next; namely, that interest groups can have an impact on policy outcomes and that regional convergence is more likely than its global equivalent. The chapter conclusion establishes the theoretical frame for the research material in the remainder of the thesis and the foundations for the methodological chapter that immediately follows.

## **2.1. Ports as a unit for policy analysis**

The change in policy strategies in the field of public sector service delivery over the last three decades is extensive and arguably transformative in that ‘embedded’ institutions were, in many states, devolved to some variation of market control. Federal governments, in an international wave of liberal economic ideology, transferred responsibility for the funding and provision of public services to non-governmental entities. In the transport sector, railways, shipping lines, airlines, airports, and seaports were deemed to require structural reform. The solutions adopted ranged from concessions to lease and operate assets, private sector licencing for direct service provision, sale of assets, and transfer of regulatory functions to a lower level of state control or, in the UK case for ports, to the private sector. In the port sector, the debate as to why reform was required included many arguments. Removing debt from the state balance sheet, and ensuring transparent and accountable operations reflect policy concerns. The argument that efficiency, effectiveness, and innovation are best achieved by the private sector over the public sector reflect market concerns. Removing any conflict of interest for the government as both regulator and owner, while generating price reductions that the private sector and competition can deliver are also common arguments. International factors such as membership of regional institutions that require policy convergence, loan or aid conditionality, and broader normative interventions driven in part by membership of epistemic communities are also argued. The potential benefits to a national economy brought by this tide of change include; greater efficiency in the ports sector; lower total transportation costs for imports and exports; stimulation of international trade; greater competitiveness in the international trade arena; more consumer choice; lower or even zero government subsidies to the ports sector; promotion of investment; potentially improved employment opportunities; and greater potential for exploiting economies of scale (Cullinane and Song, 2002:56).

Such policy motives and prescriptions are functionalist in nature focussing on best practice solutions and efficient outcomes. They do not account for economically inefficient outcomes that arise from political coordination. This is the political context and relevance of ports as an analytical tool to consider their proximity to free market dynamics and the change process from public to market led structures. There is therefore a dual debate in port governance reform. One advocates change to drive enhanced economic performance. The other argues that many port activities can no

longer be considered public goods and can be delivered by private corporations (Brooks and Pallis, 2012).

It is useful to examine the definition, and the nature of economic activities of ports, to understand the shift in what is appropriate for delivery by the private sector. It is equally useful as a preface to the development of a policy outcome measure to discuss the organic nature of the port service environment that is used herein as the unit of analysis. Privatising public utilities and public services generally is driven by arguments of efficiency, in modern public sector management, in order to be competitive. At the domestic level, a critical point in the discourse required a deconstruction of the public goods argument for utilities in order to justify devolution to private actors. From the earliest times in history, ports and port-cities have provided rulers with political, economic, and strategic power (Stopford, 2009). Political control over ports for the Phoenicians, the Greeks, and the Romans provided them with the means to regulate access of foreigners, to regulate and tax international trade, and to provide safe refuge for the rulers' armed fleet. In historical terms, port-cities were a centre of power, wealth, and influence. Thus, they remained within the public domain. Yet within these port systems, the market could function with private operators providing services to vessels and cargo. For example, vessels will require repair and supplies. Cargo will require a local agent to arrange safe passage and to pay any taxes due. Cargo will require packing, unpacking and storage.

Infrastructure funding of ports was often justified politically based on the economic concept of 'public goods' (Baird, 2004). The decision to provide these services and assets is a political one and the market was largely sidelined. The essential argument is that port assets can be considered as public goods if they have the characteristics of non-rivalry and non-excludability (Baird 2004). Goss (1990) applied public goods arguments to the port sector and argued that there are three distinct conditions to qualify. First, the assets are consumable by all port users and are non-competitive. Second, a port cannot exclude those who cannot or will not pay. Third, to use a port it is necessary to consume the service and it is not a choice. Thus, the wave of deregulation that was underwritten by modernisation arguments at industry level was further supported by a political trend away from viewing ports as public goods. The classification of the various port services and related assets as public goods was challenged thus shifting the boundary between market and political decision-making.

In the macro-economic frame, ports are seen as a job creator, an economic catalyst, and a trade facilitator (Bichou and Gray 2005:84). How best to define a port, what its economic role is, the optimal operational configuration of ports, and how best to classify ports remain key methodological questions. A review of leading literature on international ports shows that producing a parsimonious definition for ports is difficult given the variety of geographical, operational, stakeholder, strategic, and spatial dimensions to modern ports (Bichou 2006; Talley 2006; Bichou and Gray 2005; Cullinane and Song 2002). Even a cursory review of maritime literature will produce a range of references to ports that will invariably be preceded by additional descriptors such as regional, multi-modal, integrated, international, or domestic. Equally, the description may refer to key functions such as transshipment, feeder, or industrial cluster. Social organisation models are also used such as community of commercial actors, social community, commercial unit or units, or an industrial sector. They of course highlight the multiple dimensions of a complex economic organism. One definition proposed in a study of European port policy is instructive.

*“Terrestrial and seaside areas consisting of specific constructions and equipment so as to enable the deployment of commercial activities with the main functions being ships’ reception, loading, unloading, warehousing, reception and delivery of goods via inland transport modes and the boarding and transportation of passengers. Within the confines of those areas, several enterprises operate and utilise the available port infrastructure and superstructure, as well as conventional road and rail infrastructures. Additionally the port market is regulated or administered by a port authority.”*  
(Chlomoudis and Pallis 2002:3)

The many activities, functions, actors, and locations implicit in the definition reinforce the contention that there is a significant level of variance from one port to another. Location is one of the more common references on port websites and industry publications. Traditional definitions usually referred to a port’s superior location in terms of its hinterland, river and tidal access, and landside connections. The port itself may be dispersed to various nearby locations in discrete sub-units, which collectively tend to be referred to as port systems. Across time, the differences have grown as new technology has provided ports with an added basis for competitive advantage. In some cases, technology advances have cost advantages through economies of scale; and a marketing advantage through increased productivity. In other cases, ports have decided

to specialise based on the nature of the hinterland economy or on geographical advantages as a nodal point in international shipping networks. To the above dimensions, one can also add the scale, economic purpose, business models, and political governance as sub-variables to be included in a comprehensive definition of a port.

By comparison, the definition below was the product of an UNCTAD workshop, facilitated by this author, of senior port managers from Indonesia, Malaysia, Ghana, Tanzania, and the Maldives. The participants were senior port managers operating as course tutors for the UNCTAD middle manager training programme in English speaking developing countries. The training material (UNCTAD Module 2:p7) now reflects this definition.

*“A geographic and economic entity of a specific name, located along a body of water (sea, river or lake), serving ships that transfer goods and passengers (from water to land), and where water or land facilities provide complementary services that are required of the ships and goods and that contribute to the develop of international trade, industry and the overall economy of the countries under the port’s zone of influence.”*

The definition is again descriptive with location, services, and economic purpose featuring as the key elements of a port. Indeed the discussion focussed particularly on supporting national economic objectives as the key role for port managers. This perhaps reflects the lessor developed nations perspective rather than developed western liberal democracies where the private sector is seen to some extent as furthering national economic objectives.

In modern maritime law, the first such definition is attributed to the League of Nations in the 1923 Convention and Statute of the International Regime of Maritime Ports.

*“All ports which are normally frequented by sea-going vessels and used for foreign trade shall be deemed to be maritime ports within the meaning of the present Statute.”*

While this is a legal definition within an international convention, it is admirably simple. However it does not provide a basis in the modern context of comparing like with like. To remain true to the goal of a comparable unit of economic activity governed within a political framework we must consider the economic objectives for a port.

UNCTAD, in their port management training programme, regard the economic objective of a port as minimising the cost of cargo transit for port users (UNCTAD, 2009). Another economic objective is maximising throughput subject to a minimum profit constraint (Talley 2006:43). Such objectives are often framed in policy instruments reflecting wider domestic economic goals as much as commercial targets for the port itself. For example, the objective set may be to facilitate international trade in the public interest. It may include an obligation to make sufficient profit to cover all costs, capital and current, thus avoiding any call for subvention by the state. Such economic objectives may well reflect political concerns however, in the immediate context they highlight that policy frameworks differ even at the most fundamental level. An ideal representation of the economic objective for a port is to move cargo, people, and information cost effectively along the transport chain, thus minimising transit costs.

To add to the complexity of this organism ports provide services to a number of distinctly different cargo types. There are five modes of cargo transport with significantly different economic models for each. They are containers by load on and load off (LOLO); containers, people, and transport vehicles by roll on and roll off (RORO); liquid bulk such as oil (BL); dry bulk such as grain (BS); and break bulk made up of loose and specialised cargoes such as steel and timber (BB). They all differ in terms of port services, markets served, port locations, technology, and economic objectives. There is logic therefore in basing any comparative work on one mode that has sufficient variance in terms of domestic political settings. The market for load on and load off containers is the one mode that functions in all countries using standard operational methods, based on uniform standards of packaging, shipping and port handling. This category provides opportunities for value added economic activities of strategic interest to policy makers. It is the mode of cargo transport that has most changed the configuration of ports, and the demands of the private sector. This is because of rapid growth, large investment demands, and technological innovation. This also impacted on ideas of good governance in ports.

### **2.1.1. Port Governance**

Mary Brooks (2004, 168) provided an overview of governance models while also highlighting how the “governance of ports globally has changed quite dramatically over the last two decades, much of it as a result of government devolution programs”. Alfred Baird (1995, 1999) considered the case of privatisation in the United Kingdom where, for the larger ports, the devolution process was a global policy leader and the most

extreme. The leadership came from its ideological sponsorship as part of the Thatcher shift to private sector service delivery. The extreme nature of the shift was not replicated elsewhere as, not only was service delivery and landlord functions transferred to the private sector, the economic regulatory functions were equally privatised. Baird developed a matrix model to define governance based on this functional analysis and modelled the mix of private and public involvement on the distribution of the three strategic functional groups of regulatory, landlord and operations (1995). This classification is similar to the World Bank Port Reform Toolkit (WBPRTK, 2003). Baltazar and Brooks (2001:8) consider the Baird matrix “too simple” and develop this matrix approach further and this is discussed in detail in Chapter 4. At this point, it is important to understand that the sector has many activities and multiple actors. The governance models proposed by the World Bank (WBPRTK, 2003), Alfred Baird (1995), Baltazar and Brooks (2001), and in Chapter 4 are intended as heuristic devices to organise material on policy profiles. Such policies are often considered in terms of economic functions: operator, landlord, and regulator. However, they are largely descriptive and lack empirical clarity in comparative studies. This literature will provide the basis for an innovative policy profile measurement that quantifies the relative control of the port service market place by private and public actors. However, it will be useful to place this port privatisation debate within the wider context of comparative political economy.

## **2.2. Politics of globalisation**

One of the grand themes of international political economy can be characterised as ‘systematic transformation’ or the “really big question” (Cohen 2008:66). This transformation is characterised as a transfer of power from the state to the market; and/or a transfer of power from the nation state to international governance structures. In both cases, domestic politics is marginalised and policy convergence is deemed the natural conclusion. Neo-institutionalists argue that the domestic ‘black box’ should be opened and the role of domestic structure and agency explored as explanations for policy development (Schmidt, 2008; 2009). This latter group argue that policy divergence is consistent with actual observations while not ruling out some convergence scenarios. Political scholars that draw on this economics frame also contend that exogenous effects on domestic political dynamics will not necessarily drive policy change. This is because “even when institutions are Pareto-improving in the context of strategic interaction, their stability should not be taken for granted because it rests on a

highly political process of mobilization marked by conflict and experimentation through which informational issues are resolved and distributional issues contested” (Hall and Thelan, 2009:27).

Through the centuries the reach of armies and trading states has extended further around the globe bringing to foreign shores new goods, ailments, medicines, politics, capital, and economic prescriptions. The latter import in the twentieth century, and perhaps back to the mid nineteenth century and the British adoption of free trade ideology, may have assumed some degree of choice for sovereign states, but in the last few decades there is arguably little choice left but to participate in world markets in accordance with accepted norms of behaviour. Therefore, public discourse speaks to a narrative of globalisation, which in economics is defined as the global diffusion of liberal market ideology. In the academic world, neo-institutionalists are not so certain that there is a trend towards a single economic model. Some argue that there are two or more varieties of capitalism and some in turn argue that what we are witnessing is integration within regions (Hall and Soskice, 2001). There is little doubt that this question in political economy has attracted some attention from different perspectives by different generations and by different ontological schools of thought.

One of the first theoretical points to consider is globalisation itself. Offering the concept definition and understanding its impact as a transformative dynamic in the international political economy are challenges for scholars of different ontological perspectives. As the world economy has grown, with international trade growing even faster, the rules that govern the behaviour of all economic and political actors have converged – hence the term globalisation. Keohane and Nye argued that decision making in the international system is characterised by complex interdependence (Keohane and Nye, 2001). Realists, such as Gilpin, argued that such convergence could be explained by states behaving in accordance with given national interests; and rules are generated by international organisations that reflect the interests of the states that dominate their voting structure (Gilpin, 2011). Therefore, any changes that occur have not altered the basic structure but may have shifted capabilities among states. The international system has responded to interdependence with international institutions, norms, regimes and informal rules; and through cooperation and negotiation, perhaps defined by the dominance of a hegemonic state or group of states. The focus is on the construction and maintenance of international institutions as instruments of governance between states and policy leaders.

This in turn leads back to the problem of effective state power. In the positivist school there is little argument that states are the basic unit of an international system but some states are perhaps more equal than others. Institutions or norms of economic behaviour can also be influenced by an ideology, in turn promoted by formal international institutions. Within the World Bank, a debate on governance of public sector assets in distribution and production, such as power and telecommunications, argued that economic power should be delegated to the market to enhance economic efficiency (Estache and Fay, 2007). The same normative logic applies to public sector assets in transportation such as railways, shipping and ports. The positivist approach considers the development of an institution from an idea in country A, through negotiation and coordination internationally, and its diffusion back to other states; however, it is a unidirectional causal logic (Lake 2009:237).

Turning the lens around and considering the chain of events or causal story from the perspective of states with limited capabilities or power in this international system poses new questions. For example, in the case of Ireland and Greece during economic crisis, such states may not be in a position to resist the power of institutions or indeed the market<sup>4</sup>. Equally, domestic political institutions may still retain control over economic policymaking. Benjamin Cohen (2008: 95-117) considered such matters under the heading of a “control gap”. Research in the positivist school of late has, apparently discarded any notion of grand general theory on these topics and has disaggregated the global economy into its constituent parts. Thus, insights into the politics of change in areas such as the governance of money markets, trade preferences, and standardisation processes such as corporate governance are available. There is also considerable research into the processes of norm diffusion in areas such as public sector privatisation programmes. Where there is a gap in research is in the response of domestic political institutions to the pressure to adopt such norms as domestic policy instruments. However, ontological questions permeate the literature and point to a conflict in theoretical approaches to the privatisation debate. The apparent differences need to be challenged, accommodated, or ignored.

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<sup>4</sup> Because of the economic crisis in the Euro area from 2008 onwards, both Ireland and Greece could only access reasonably priced funds from the Troika (ECB, EU, and IMF). This funding includes significant conditionality, including privatisation of State Owned Enterprises such as ports. While Greece made some progress on port reform through sales/concessions (Pallis, 2013), Ireland decided on devolution to lower tiers of Government (Policy Statement, March 2013). The policy statement in Ireland removes any constraint to future privatisation, although the new legislation is not drafted yet.

### **2.2.1. Competing theories of change**

The literature on politics and globalisation discussed above is a large body of academic work based on a number of ontological and epistemological assumptions. There are choices to make, not just at the methodological level, but also in terms of higher-level theoretical constructs. In this instance, it is important to set out the arguments for the assumptions made. Parsing the process as between international factors and domestic politics is one key assumption. Taking a pragmatic and historical approach to State interest definition, and assuming that domestic politics can still influence the application of international norms are the others. This section briefly describes why these decisions are appropriate.

The relevant structure in economic globalisation, and economic ideas, is the complex web of relationships between states and markets. Underhill (2000, 808) described this state-market governance structure as an integrated system that “operates simultaneously through the competitive pressures of the market and the political processes which shape the boundaries and structures within which that competition (or lack thereof) takes place”. Another view of globalisation as a transformative process, perhaps privileging economic elites, may also argue that the state system is dead or at least demoted in its analytical prominence. Susan Strange argued that the state system is dead as accelerating interdependence is leaving the nation state political model behind (1994, 1996). This research demonstrates that there is considerable evidence of states responding to market demands to liberalise but it also considers the arguments that domestic politics, representing societal interests, still matter. In other words, there is evidence that states respond to the market in different ways, perhaps privileging political elites, or perhaps reflecting a state defined political philosophy as to the balance between market and state governance.

Cohen argued that bracketing the international and analysing economic policy choices from the ‘inside-out’ is consistent with the theoretical contributions of Katzenstein, Krasner, Gourevitch and Lake (Cohen 2008). Katzenstein referred to the inherent political logic in each domestic policy network that impact on policy outcomes (1978: 295-336). While the domestic political process is the focus of the process, it is important to reconcile international factors with this ‘inside-out’ approach. By conceptualising change as having two stages the diffusion of international ideas can be taken as agenda setting with the domestic as policy application. Policy diffusion theorists argue that there are four possible diffusion mechanisms: coercion, competition,

learning, and emulation (Simmons et al, 2008). It is this last mechanism they argue which provides researchers with the opportunity to separate social constructivism from materialist rationalist analysis of policy adoption (Simmons et al, 2008). Emulation is also of value when explaining sub-optimal policy outcomes in the context of domestic political coordination; in other words, equilibrium is achieved when political actors are satisfied with the outcome.

In the realist ontology, the interests of states are exogenously determined and states are the only actors in an anarchic system. Liberals allow for institutions, formal and informal, but remain rationalist in assuming that actions can be objectively observed and that interests and identity are a given. Keohane considered two approaches to the study of international institutions: first, one based on 'substantive rationality'; and second, one based on a 'reflective' approach (Keohane, 1988). In sum he is a leading member of the first group and he argued that the second group have done nothing more than criticise, and do not have a comprehensive research agenda of their own. The principle philosophical argument of rationalists, taken from economics, is that interests are exogenously given and therefore social drivers do not impact directly on utility calculations. It is this notion of self-interested utility maximising actors that is difficult to reconcile with real world observations of policy change; particularly in the domestic context of past policy decisions. Keohane argued that “rationality is always contextual” (Keohane 1988: 381). He further argued that allowing for cognitive limitations of decision makers, “bounded rationality”, the range of possible outcomes expands. It is this concession to the idea of sub-optimal and politically variable outcomes that resonates with a more nuanced approach to domestic change common in institutional approaches to policy development. Therefore, the determinism associated with this ontological perspective is not as gloomy as might be argued by constructivists. Keohane argued that many of the relativists concerns with variability in identity and interests and thus outcomes are accommodated in good rationalist empirical research.

In the work of comparative politics, social constructivists have made significant contributions (Finnemore and Sikkink, 1998). Finnemore and Sikkink focused on empirical research and it is the potential for change that most interests them and is thus an “inductive enterprise”. In considering the development and diffusion of economic policy norms, the role of ideas must be considered, not just in themselves, but also in terms of their role in constructing identity and interests. Accounting for a socially constructed identity that is variable historically and geopolitically is therefore

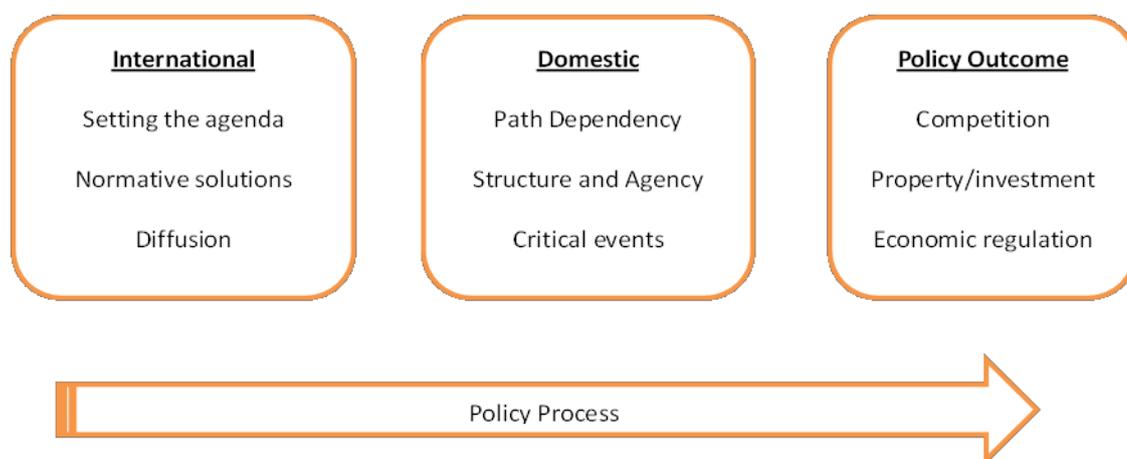
problematic. This section thus far has juxtaposed rationalism, in the sense of materialist assumptions of certain meaning, with social constructivism. Comparative politics quite often will use some categorisation of state identity, as a proxy for interests, in quantitative models and qualitative case studies.

Comparative researchers of norms and their dynamics do not necessarily focus on this apparent ontological divide (Finnemore and Sikkink, 1998). In fact they argue that the “fact that rational choice methods have been appropriated in the past by those with a materialist ontology has tended to obscure the fact that nothing about rational choice requires such an ontology. The utilities of actors could be specified as social or ideational as easily as they can be material. By making different assumptions about social relationships and ideational values, rational choice theorists provide interesting insights into the kinds of normative patterns that may develop and be stable.” (Finnemore and Sikkink, 1998:910). They argue for a theoretical link between instrumental rationality and social constructivism. They consider the possibility of cross fertilisation between comparative researcher's mid-range analysis and constructivist theorising (Finnemore and Sikkink, 2001). They conclude that to better theorise how international norms influence domestic settings a better understanding of domestic ideational and political structures is required. From another perspective, rejecting rational choice models in political science is premature if we allow for additional variables and alternative views as to what is to be maximised by rational actors (Mueller, 2003:662). Thus, an accommodation of sorts may be possible for students of comparative politics with Meta theoretical dilemmas, other than ignoring the issue. Comparative theorists can test for a number of potential mechanisms that rely on both materialist and constructivist ontologies. Such mid-range comparative work can do so and leave the grander ontological and epistemological questions for others.

Once the constraints of exogenous interests are lifted from a practical research perspective it is possible to explore the domestic with greater flexibility. It is possible to conceive of different responses to the international diffusion of policy prescriptions as contestable within the domestic political space. It is possible to consider different outcomes where states appear to have the same interest profile in an international model of change. This does not exclude the possibility of external shocks driving change. However, it does provide an opportunity to control for both the international and the national in an appropriate model of change. Figure 2.1 is a schematic of a multi-level policy process. This is consistent with theories of institutionalism and open economy

politics (Lake, 2009:221). The schematic parses the process into the international dimension, the domestic political ‘black box’ and the economic institutional context that conditions the policy choice sets and market responses.

*Figure 2.1: Multi-level Political Change Process*



The building blocks in Figure 2.1 refer to levels in the economy and thus refer to the causal story, developed further in section 2.3, where policy dynamics differ in each of these stages. It is a simple construct and issues of feedback and interactions between and within are explored further in the discussion that follows. Within the grand quest to explain political liberalisation in the international political economy one can look to the role of domestic institutions in explaining change. Within the outcome metrics, inclusive of market responses and regulatory cohesion, variation can objectively be studied. It is a political economy representation rather than a process model<sup>5</sup>. To progress this debate further requires an examination of theories of neo-institutionalism, also borrowed from economics.

### **2.2.2. Path Dependency**

As ports are a community of actors, functioning across a range of activities, it is logical that there are a range of rules and practices that regulate said activities. Such regimes will include market, security, environment, health and safety, shipping, and the carriage of goods regulations. Market regimes will cover competition, property, capital, labour, development, and foreign investment structures. It is appropriate to examine the literature on how rules and practices, considered herein as institutions, are formed and

<sup>5</sup> For a more comprehensive discussion of this multi-level change process from an economic perspective, see Brooks and Pallis (2008).

change over time. Given the range of institutions that are relevant to a ports policy package such change may reflect the local combination of practices developed and/or the interaction between these institutions over time; as such, institutions are collective constructs (Hall and Thelan, 2009:12). Having highlighted the weaknesses in the conventional privatisation macro-economic approach this review now examines the historical institutional literature, often characterised as path dependency, in order to describe a causal process more appropriate to this industry case.

Liberalisation of public service provision assumes a transfer of functions from the state to the market. The process can involve a transfer of asset ownership and/or a transfer of operating rights to the private sector. Another variant of this process is the devolution of ownership and regulatory powers from central to local government. Within each of these options, there are variants such as the re-constitution of port authority functions in line with best practice corporate governance models, referred to as corporatisation. While all of the combinations are focussed on improved efficiency benefitting the national welfare only some transfer ownership to the private sector. It is this broader concept of liberalisation that is of interest here as a measure of power distribution in the economy. Modernisation actions that do not transfer ownership to the private sector are not pertinent as they are more relevant to a performance study. This type of analysis is limited in explaining why institutions change because focusing only on the functionalist efficiency objective in complex institutional environments is a “highly risky pursuit of a rapidly moving target” (Streeck and Kenworthy, 2005:583).

Liberalisation in this trade facilitation sector is therefore characterised by part privatisation, as “full privatisation of public ports seems unpalatable to most governments, no matter what the tenets of new public management” (Brooks and Cullinane, 2006b:414). Port governance institutions shaped by “local and national differences” is an argument supported in maritime economics literature (Notteboom et al, 2013). Explanations are offered through firm level ideas of management responses to external market pressure. There is little by way of political variables in such studies and even less by way of cross-national comparative studies. Another strand of the economics literature considers descriptions and categorisation of port policy outcomes that is, diverse governance systems as implemented (Brooks and Cullinane, 2006b). Implicit in most analysis is that path dependence serves as part explanation for diversity, and that governance typologies are largely descriptive and thus difficult to

apply comparatively (Notteboom et al, 2013: 26). Politics, characterised as diverse institutional frameworks, does appear as part explanation for variable policy outcomes in a three port comparative study (Ng and Pallis, 2010). Whether the research is normative, and argues that policy makers should develop port governance policy in line with political, economic and social context (Baltazar and Brooks, 2001), or analytical where actors are embedded within a country specific 'political culture' that partly explain outcomes (Ng and Pallis, 2010), the maritime literature supports the historical institutionalism approach to explaining policy variance. Two further points are of note: first, time is a factor in that path dependence assumes that a domestic port itself has a long history on which to draw; and second, that publically owned ports would generally be expected to be less responsive to external pressure to change than their private sector counterparts. In the former case, containers are new in historical terms however; ports generally pre-date the establishment of a container terminal thus providing context for port governance policy formation.

Path dependency arguments reference the resilience of past policy and institutions to change. They are also employed as an explanation for policy divergence cross-nationally. National economic systems are highly path dependent; and they "are likely to exhibit substantial resilience, even in the context of major exogenous shocks" (Pierson, 2000:264). In earlier literature, policy change was often seen as a function of an exogenous impetus (Frieden and Rogowski, 1996). In the case of the port industry, the shift to containerisation is consistently described as a critical event (Reveley, 2008). Another systemic event, perhaps a natural development from earlier containerisation, in the political economy of ports was the changes in international shipping from liners and liner conferences for general cargo to intermodal logistics chains. They have evolved into important nodes in a door to door valued added chain of services, where a small number of trans-national corporations (TNC) dominate, with as much as eighty per cent of world trade under their control (UNCTAD: World Investment Report, 2013:x). Such paradigmatic shifts required new and flexible policies from the state in order to remain relevant. In product life cycle terms the port offering required re-imagining or the international market would take its business to ports elsewhere, with knock on cost implications for importers and exporters, producers and consumers. However, this adaptation often faces "visions of past glory as a strong barrier to change and reform and may seriously distort policy decisions" (Sletmo, 1999:13). Change does not always arise, or depend on, exogenous shocks (Hall and Thelan, 2009). Change can be

interactive and a product of domestic political action. To further this argument the next section considers the evolution of theories of institutional change as an input to the theory of change proposed subsequently.

### **2.2.3. Neo-Institutionalism**

Explaining change in domestic economic institutions, beyond an intelligent narrative that uncovers policy paths as historically contingent, remains problematic in the literature. Path dependency is an organising or heuristic device employed to describe institutional change and is not a theory (Kay, 2005). Change can occur at different levels in the economy (Hall, 1993; Rose and Davies, 1994; Kay 2005); is subject to informational deficits leading to policy choices that are bounded by perceptions (Keohane, 1988; Kay, 2005); and is contextualised by policy paradigms that provide an interpretive framework in the policy making process (Hay,2000; Hall,1993). Therefore, policy develops along a path incrementally, perhaps deflected to new paths in the context of a paradigm shift in the political economy, to outcomes that are not necessarily in line with efficient economic solutions that target national welfare growth. Policy change is agreed within the political space rather than in the market place; and an interactive institutional environment where changes in one can have an impact, intended or otherwise, on another. Thus, change is dependent on political equilibrium among competing interests. Based on these propositions policy change is explained by a political process that produces agreement among relevant and capable actors. However, the above propositions, based on neo-institutionalism, need to be justified as appropriate to the industry case and period under review.

Neo functionalism argues that institutional change in the political economy results in policy convergence because of interdependence and integration globally (Amable and Palombarini, 2009). Earlier theoretical constructs, such as corporatism and functionalism argued, in line with economic theories from which the political version evolved, that solutions will come from shared ideas of best efficient practice. It requires states to be the key actor in the change process and that their interests are aligned with maximising national welfare. This assumes that interdependence is caused by developments in the international political economy rather than the putative cause. Critics argued that such theories have a number of weaknesses. For example, causal mechanisms are unidirectional with exogenous shifts as the sole driver of change. Equally devastating to the theoretical explanatory power are the critiques of policy determinism leading to convergence on normative solutions that are a function of what

is considered appropriate economically. They take no account of political or social dimensions (Hall and Thelan, 2009). Equally, they are odds with observable reality where there is evidence in the port sector of policy variance, as is clearly evident in the data presented in Chapter 4. Beyond policy variance the literature also highlights that a number of port reform projects were “stalled or even abandoned” due to dominant interests in the policy process (Notteboom et al, 2013: 28). This includes labour unions (Haralambides, 1995). This suggests that any theory of institutional change should account for the power and influence of actors, and logically the political structures that frame their contributions.

#### **2.2.4. Varieties of Capitalism**

Critics of the former brand of institutionalism responded with new approaches based on incorporating theoretical assumptions to avoid the criticisms of the past and enhance the explanatory power of their theory. ‘Varieties-of-capitalism’ (VOC) is one such strand of theory within neo-institutionalism that rejects the convergence hypothesis and brings in the political to the theoretical space. This branch of thought argues that capitalism does not have one form and economic systems vary based on the suite of economic institutions common to the economy. As with other path dependency theories it assumes that institutional packages are a product of their historical and social context, and the consequences of interaction between institutions. The analytical assumption is that firms, that is, employers, are the key actors in the way they respond to market dynamics (Hall and Thelan, 2009). Labour is a lesser power in this model of change. From this, scholars proposed multiple variants of capitalism, albeit with two different intents. The classic work argues that there are two variants of capitalism, liberal market and coordinated market economies (Hall and Soskice, 2001). The assumption is that in the long run all economies will fall into groups that exhibit the dominant characteristics of the two models. Some scholars extended the argument to allow for additional models (Schmidt 2008, 2009; Amable, 2003). A distinctive feature of later development of the theory is that they propose groups as a typology rather than a predictive model (Streeck and Kenworthy 2005; Amable and Palombarini, 2009). Varieties of capitalism is firm based, and perhaps with a functionalist legacy based on market ideas of best practice, so politics is not central. Amable and Palombarini (2009) argue that a comparative political economy understanding of capitalism requires a link between political and institutional equilibriums; and therefore change representing the dynamics of rapidly moving equilibriums. However, this branch of thought has introduced ideas that allow for the

interactive effects of related institutions, and a perspective that regards institutions as resource opportunities rather than constraints (Hall and Thelan, 2009).

Research thus far has focussed on advanced economies, which limits its applicability to a dataset that has a range of liberal and illiberal economies. Nonetheless, the non-liberal countries are fully integrated into the global trading economy, which requires a package of economic institutions that will facilitate trade. Logically the theoretical assumptions will be testable on such a variable dataset producing contingent results, as with most work in comparative political economy. The theory proposed here draws on the varieties of capitalism literature to propose a change mechanism and to propose a trend towards regional convergence.

Institutionalism introduces the concept of rational calculations in political decision-making. Structural Realism, based on political structures and actor capabilities is consistent with this form of analysis (Amable and Palombarini, 2009). Neorealism provides the means to look at the structure and complementarity of institutions and argue that change can happen in many circumstances, including in crisis or incrementally. Public policy processes operate within a structure that mediates between social demands that seeks to reach an accommodation for the common good (Amable and Palombarini, 2009:130). Inertia suggests no political conflict and therefore no mediation. Therefore, policy outcomes are a function of a power distribution in a contested space mediated by politics. Compromise is not limited to a short-term long-term trade off but to managing the risk of political support dilution, characterised as ‘coalitional politics’ (Streeck and Kenworthy, 2005). “In equilibrium, the dominant compromise and hierarchically superior institutions validate each other; institutions are instrumental in the establishment of the compromise and, in return, dominant groups politically validate these institutions.” (Amable and Palombarini, 2009:135). Thus, political contestation is the dynamic and crisis, perhaps with a paradigmatic shift in policy fundamentals, is about the intensity of that contestation. Contestation itself assumes repeated feedback loops with information updated continuously. Therefore, a theory of diversity can flow from a political theory of institutions; and not from firm based strategies in varieties of capitalism.

### **2.2.5. Political Coordination**

Research in the field of institutional change has examined a number of economic functions from both top down design and bottom up adaptation perspectives. These

matrices of analysis suggest that the mix and power of explanatory variables may vary depending on the industry and the policy level under review. Levels of analysis are common in the literature (Hall, 1993; Rose and Davies, 1994; Kay, 2005). Amable and Palombarini (2009:125) argue that there are levels to institutional analysis including representations of ideas, the demands of actors, political mediation, winners and losers, and the institutional rules of the game. This perhaps refers more to the steps or ingredients of the policy process rather than levels in the economy. In the case of privatisation, there are economy wide strategies whereas at port industry level there are specific programmes that may not derive from a top down policy paradigm. It is conceivable that policy can develop from the industry level and thus change can be better explained by more pragmatic factors rather than national political competition. This can be characterised as the difference between ‘constitutional’ level policy and ‘operational’ level policy implementation (Kay, 2005). This also represents a key theoretical divide between high-level partisan politics setting out policy positions, usually in the context of elections; and low-level policy action often driven by the pragmatic politics of negotiation and accommodation. Actual policy outcomes are a better measure of reform success (implementation as imagined by policy makers) as they are conditioned by actor interpretations (as adopted by the market). The state is one actor in the process (Hall and Thelen, 2009). This also draws on the neo-realist perspective where state structure and capabilities are important variables cross nationally.

The political dynamic assumes actors, including political parties, need to maintain or grow support for political validation (Amable and Palombarini, 2009:132). A further consequence of this operational level of analysis is that actors are not in a process of competing over discrete alternative solutions. The assumption is that the state, the policy maker, proposes an idea and others decide whether to contest or support the proposition. Consider the modernisation idea as an ideology that is dominant and actors form their views in relation to this rather than necessarily in opposition to it, or in support of a contra idea. The “agents’ cognitive structures reflect the incorporation of a social domination and thus the ‘objective’ structure of domination” (Amable Palombarini, 2009:131). This has a further implication in terms of explanatory and intervening variables deemed theoretically appropriate to the proposed change process described in Chapter 3.

The economy wide narrative often approaches the analysis by identifying variables that influence the determination of appropriate policy. In the industry level frame, theoretically appropriate variables condition the outcome rather than determine it. This linking of institutional and coalitional politics is regarded as a research opportunity and can “yield(s) an account of institutional change that is eminently political” (Hall and Thelan, 2009:27). An alternative statement of the same research agenda regards the blending of functionalist and historical institutionalism in international political economy that allows for appropriate hybridisation of policy within the context of bounded innovation (Streeck and Kenworthy, 2005) This forms the rationalist theoretical foundation to the change process dynamics proposed below for port liberalisation policies.

Policy processes, including implementation, are complex and interactive. Causal inference is difficult in terms of complexity and direction. Complex path dependent hypotheses are difficult to test, thus presenting a methodological challenge (Pierson, 2000:265). Drawing on institutional settings, which define the context and perhaps limits for port privatisation, and the proposition that labour will always resist such reforms together provides the motivational frame for endogenous policy resistance. Standard exogenous theories provide the frame for policy reform and agenda setting. The question as to how these competing forces are resolved into policy action depends on defining a sector specific policy process. Two of the approaches in the literature relevant to the maritime transport sector are political competition and political support. The former assumes a competition between candidates for election while the latter is based on incumbents accommodating interest representation to maintain or grow political support. It is more likely that such industry level reform will be an issue for an incumbent rather than electoral politics, and perhaps ideological commitments.

The equilibrium structure of industry protection is examined from the perspective of a political support model rather than the political competition for electoral advantage approach. Castillo-Manzano et al (2010) argue, in a study of Spanish port reform, that the lack of significance found in political competition between federal and provincial party profiles points to policy pragmatism rather than ideology based policy development. More broadly, party ideology has little impact on policy change in either direction. This supports the argument that party manifesto data will provide little insight into actual policy outcomes at sector level. It also supports the argument that the policy process at sector level is driven by political pragmatism and not ideology. Therefore, the

political support thesis is a better frame of analysis than the electoral based model. This is a higher level of abstraction than say an examination of party donors and their contributions. The political calculation seeks to gain support for the optimum policy package from diverse actors.

In the case of ports labour interests, as will be shown in the data, are consistently against changes that devolve power from the state to private interests. In order to overcome such objections, assuming their support is valued, policy makers may offer alternative forms of welfare compensation. In the case of the USA some levels of reform, to accommodate new technology and working methods, were accepted by labour as significant wage improvements where guaranteed to their members. (Port Strategy, June 2011). Understanding the dynamics of policy change in the face of apparent resilience will come from the proposed causal mechanism in the following section.

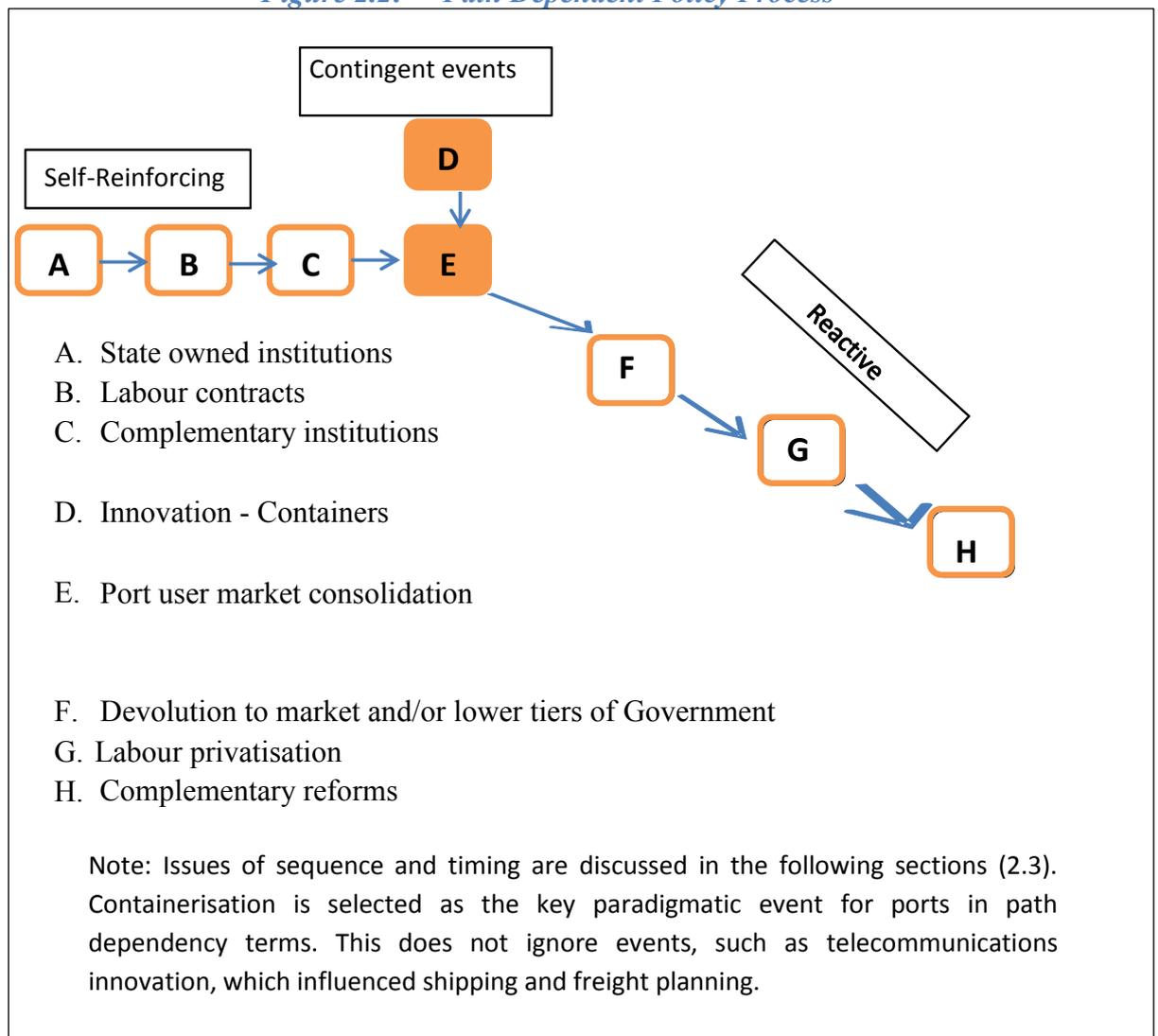
### **2.2.6. Reactive Path Dependence**

Reveley uses path dependence theory in a historiography of New Zealand dock labour (2008:194). By following Douglass North (1990; 1992:28), he shows that a sequence of changes can be explained by a shift in the balance between transformation and transaction costs in a period bisected by technological change. He further shows two phases to the process as self-reinforcing and reactive sequences. The critical juncture between the phases is the introduction of containerisation and the resistance of unions to the changes required. Containerisation impacted on ports in that dockworkers required a higher level of skills and training to operate the equipment that demanded less labour per tonne of cargo handled. Employing path dependence frames of analysis it is possible to consider the resistance by labour to change that blocked and delayed institutional reform. It is also possible to examine the interaction between labour reforms and governance reform, specifically deregulation to the market and/or lower levels of government.

Three paradigmatic shifts are observable in the general cargo industry during the second half of the twentieth century. In the case of the first two, they are arguably a reversal of similar shifts following the industrial revolution in the nineteenth century. They are the creation of internal labour markets to provide certainty to employees and employers in dockworker supply. More particularly, it was intended to reduce the propensity for dockworkers to strike. The unintended consequence and one reason for its reversal in

the latter part of the century was the growth in the political power of organised labour. The second shift relates to the global diffusion of neo-liberal ideas like devolution of port services control to the private sector. This acted in parallel to labour reform in many cases and some researchers argue that one is contingent on the other for improved economic performance (Baird and Valentine, 2006; Thomas, 1994). In the cases examined, some countries have yet to complete one or the other so arguing that policy divergence is permanent is contingent on no further changes; which does not reflect observable reality, or probable future political conditions.

*Figure 2.2: Path Dependent Policy Process*



The third shift relates to the introduction of a radical new technology for cargo handling (Notteboom et al, 2013:28). This impacted port operations as well as shipping methods. Previous technology advances such as steam and communications did not impact ports in this way as cargo handling remained mostly manual. For path dependence in the

transport sector, there are two criteria. First, “pinpoint causal linkages between tightly coupled sequences of events”, and second “identify in a theoretically informed manner the mechanisms that propel those sequences” (Reveley, 2008:206). The links in the process are described in Figure 2.2. The driver is the shift in the balance of transaction and transformation costs, which also explains the underlying mechanism for a shift from self-reinforcing to reactive path dependence. Such a shift in costs may result from a systemic financial crisis. There is little evidence of this happening for the ports in these data, as the discussion in Chapter 6 will show.

The self-reinforcing form of path dependence assumes that an institution will continue to defend itself, may possibly adapt to new circumstances, and will survive political attempts to close it down. Therefore, in political terms the costs associated with an exit from this institutional arrangement are too high. Logically, if there is a shift in this cost calculation then path dependence can be considered as reactive, as the changes implemented will be consistent with the inherent logic of the broader institutional framework. The inherent logic is that one event can naturally lead to another. It is not sufficient alone to show path dependence as slow or no change. The advent of containerisation resulted in many cases of unions extracting high rents rather than policy change to distribute the gains across the economy. Over time, the cost calculation changed reducing the costs of capital organising and lobbying for reform.

Labour militancy re-enforces the lock-in of labour institutions as the costs associated with policy change are considered too high unless a critical event shifts the calculation. These costs are higher again when the wider institutional framework for labour is protective of union power. Another feature of institutional stamina is that the related organisations in the industry can “become entwined with institutions whose existence they then defend” (Reveley, 2008:200). He also shows in the case of New Zealand that stakeholders began to lobby harder as the structure of trade altered. Shippers looked to “lower transformation costs by decreasing the labour intensity of the work process” (Reveley, 2008:201). The unions responded, as in other countries, by driving hard bargains for using new technology. Rather than accommodate change within existing institutions the unions had raised the stakes and incentivised their political opponents to invest in change. “These were fateful decisions under the logic of reactive path dependence, because the way that port union power was exercised at a time of

technological change led eventually to the demise of the very labour market institutions that sustained that power” (Reveley, 2008:201).

Blending the literature from maritime economics and privatisation studies on comparative political economy leads to a number of conclusions at this point. Disaggregating ports to the load on/load off container market provides the foundational unit to test the port privatisation theory. In terms of Meta theory, allowing for alternative views of interests and utility calculations is consistent with a rationalist model of change. Path dependency theories provide a set of methodological assumptions consistent with the theory of port privatisation to follow. In this next section, the general theoretical analysis is developed into specific theory and hypotheses.

### **2.3. A theory of port privatisation**

Path dependence is proffered as the framework for describing the policy change process. The term is not in itself a theory and some describe it as a “faddish term” (Pierson 2000:74). Nonetheless, the port governance policy process is theorised as path dependent, and it is based on the assumption that there are “strong grounds for believing that self-reinforcing processes are in fact very widespread in political life” (Pierson 2000:78). Such processes show evidence of “punctuated equilibrium”, where order of events matter, and that most policy elements are situated in nested relationships of institutions, sector policy and actor behaviour (Howlett, 2009:244). The process also shows evidence of ordering various drivers of change by level in the political economy, and by sector, so as to capture their incremental or marginal effects over long time periods of policy development (Howlett, 2009:243-245). The literature on varieties of capitalism provides valuable theoretical insights into policy change along a continuum of market versus state coordination in the broader economy. They are adapted here to both develop a theory of policy development and later, to develop a country typology. At no stage are port policies and country types proposed as varieties of capitalism, merely as useful analogies for description and empirical rigour.

As the academic debate evolves, methodological developments have opened up new ideas of how the policy process can be conceptualised. It is normally assumed that a tight sequence of events needs to be observed in a path dependent policy process; however, this is not always the case (Amable and Palombarini, 2009). A variation on this is to allow for tightly grouped institutions interacting over time to produce, at a

point in time, policy equilibrium. There is a “need to build out from the core dichotomy on which the original varieties-of-capitalism framework rests to more nuanced analyses of what might be described as non-trivial movement within the broad categories of ‘coordinated’ and ‘liberal’ market economies” (Hall and Thelan 2009:25). This allowance for difference between the standard ideal types is echoed elsewhere in the literature (Amable, 2003; Amable and Palombarini, 2009). Liberalisation is the process of interest and Hall and Thelan (2009:24) pointedly argue that to “frame the debate in terms of an undifferentiated view of ‘liberalization’ squanders one of the principal advancements offered by the varieties-of-capitalism framework”. Functionalist methods effectively situate countries on a scale relative to each other whereas varieties of capitalism theory categorises countries based on the kind of institutional mix in the domestic political economy. Blending the port centric theory of a policy continuum along the spectrum of state intervention in the market with the concept of strategic, rather than market, coordination provides the foundation for the port governance theory of change.

This approach “deploys an understanding of institutions that anticipates a lively politics, marked by experimentation, negotiation and conflict, even in cases of institutional stability.” (Hall and Thelan, 2009:14). Within this, there are many possible modes of change including displacement (from above) or conversion (from below) (Streeck and Kenworthy 2005). Maritime economics literature refers to path dependent policy development based on modes of change that include probing, stretching of current institutions, and different forms of process logic (Dooms et al, 2013; Notteboom et al, 2013:34; Ng and Pallis, 2010). While the modes and motivations may be different in the politics and maritime literature, they are consistent with each other at the higher level of abstraction that is political contestation. For example, in Ireland the Harbours Act 1996 made no mention of privatisation. In fact, the Act made no provision for shares to be held in the Port Authorities other than in the hands of the Minister. The governance frame required a change in functional form to a corporate entity, still owned by the state. This type of legislation is not unusual during the period under review. The reaction of the actors in the process, including the private sector, point to the underlying modes of change. Container terminals in Dublin for all forms of container handling effectively evolved, in a process started before the 1996 Act, into privately operated entities holding long-term interests in property. Within the sector, policy was ‘stretched’ from below and the actual policy frame moved further along the public/private

continuum. Others describe the policy process as reflections of sunk costs, network and learning feedback effects, hegemonic discourse, and a process of adaptation (Arthur, 1994; Pierson, 2000). Thus, policy was converted from below in a context where power was devolved to a lower level of state control by the legislation.

The port sector is characterised by significant investments with relatively long payback periods, therefore change can be constrained by the need to avoid losses on earlier investments. Equally, the process in Dublin reflected what happened elsewhere during the period. Within the legislative frame, actual policy changed in a process of constant interaction with the private sector and consequential adaptation. Therefore, port policy measures used here will reflect this internal dynamic in the leading port with an annual assessment of its position on the policy spectrum. What is important from a testing perspective is that the policy as actually implemented is a more interesting measure than scoring legislative papers, which set the broad parameters for economic activity. Thus, a policy outcome metric should reflect the response of the market, bureaucratic actions, and institutional interaction in constructing the actual observable policy at a point in time. This does not limit the change process to one of contestation among market actors. The process can involve ‘displacement’ from above through state led directives, themselves the product of a political process; as well as policy ‘stretching’ at industry level. The mode of interest here is the process of political coordination among domestic actors that result in real and substantive shifts from states to markets. ‘Stretching’ from below of policy is more likely to reflect operational configurations rather than measurable policy change.

This pragmatic approach to research, defining specific industry sectors, policy outcomes, and modes of change, continues with an examination of process elements of time and institutional levels in the economy. Time has a number of influences on policy change research. The process can be disaggregated into stages of development, requires data over considerable time periods to capture the iterative movements, needs careful identification of sequence over time, and finally is contingent on the historical ‘snapshot’ of a process that continues long after the study.

This research parses the causal process into two main parts of international and domestic. This reflects the demand and supply side of the policy process. For example, demands for change may come from international institutions, powerful market actors

in the international political economy, and/or bounded learning from the performance of neighbouring states. In the supply context, the domestic political institutions respond with proposals to change. Thus, the agenda is set. It is assumed in this research that the agenda will reflect demands for modernisation, efficiency, and effectiveness, through greater devolution to the market. This two part causal analysis is consistent with the literature (Lake 2009:221). A two level approach to capital controls effectively argued that domestic factors have declined in the face of international developments (Kastner and Rector 2003:4). Privatisation policy in Latin America, including ports, was conceptualised as having two parts to the policy cycle (Doyle, 2010). In modelling terms, this suggests that game theoretic models will be valuable in isolating the domestic political determinants of policy change. This is not pursued in this work because the additional dimensions identified below suggest a more sophisticated multi-level model is required.

Levels in the economy are also an important consideration. It is a factor consistent with the broader trend in research to disaggregate the economy into industry sectors. The public infrastructure sector is taken as a subset of the economy. Capital control institutions are also a subset of the economy. The difference is that the latter is subject to macro-economic forces while the former is subject to micro-economic dynamics consistent with varieties of capitalism theories. Strategies of disaggregation are common (Cohen, 2008). The methodological risk or the 'reductionist gamble' is that important processes may be left out of the model specification (Oatley, 2011).

Another time relevant difference in modelling policy change is that macroeconomic level research tends to define the dependent variable in terms of change events. This dichotomous variable does not provide an assessment of movement over time along a policy continuum. Policy lead times in the port industry sector are significant. This time factor refers to the time to coordinate a policy change and the time for the market to respond. Past policy is likely to have a significant impact in such a slow moving policy context requiring control mechanisms in the data models, which are described in the data chapter to follow. This reflection on time as a determinant of policy change is incorporated in the process account through parsing phases, collecting data across a policy and statistically significant period, and measuring incremental policy change as an iterative movement rather than as equal events over time.

A final assumption is that policy change is unidirectional in nature as it “is unlikely that the present political climate in most countries would allow a tightening of state control over ports, especially since deregulation, privatisation, and decentralisation are powerful forces that are reinforcing the independence of port administrations world-wide” (Slack, 1993:586). This is evident in the strong trend in the data from 1980 to 2010 of policy moving market power to the private sector. This is a modelling constraint and is discussed further in Chapters 3 and 5. Having defined a frame for analysis that reflects on levels in the economy, international and domestic institutions, and time factors the next section sets out an account of change based on political coordination among capable and motivated actors.

### **2.3.1. Linking ‘coalitional’ and institutional politics**

Two propositions are common in the political science literature as explanations for policy shifts. One is based on the politics of ideology and the other is based on maintenance of political support. By assuming earlier that there are different levels in the economy with different institutional dynamics it is not necessary to show that one is flawed. This fits with ideas of policy pragmatism over party ideology (McMenamin, 2012). It is more likely that the political decline of parties in terms of explanatory power as one looks to microeconomic processes can be rationalised by the capacity of interest groups to adapt better in a multilevel political environment (Fraussen, 2012:514). Ultimately “the proximate objective of all governments is to retain office – irrespective of whether the mechanisms for deposing governments are elections, palace coups or popular revolutions” (Garrett and Lange, 1995:629). The premise is that party politics is more relevant at the macroeconomic level with political coordination more appropriate at the microeconomic level. More specifically the varieties of capitalism literature on this microeconomic level process are supportive of the coordination hypothesis (Amable and Palombarini, 2009). Therefore, macro level causal stories based on ideas of left and right are not disputed (Oatley, 1999). The common ground is that “ultimately the interaction of interests and institutions shape outcomes” (Kastner and Rector, 2003:3). This is the process dynamic and the foundation for the variable used in the data modelling and the analytical narrative, Chapters 5 and 6 respectively.

Applying institutional and political coordination arguments extends existing knowledge by positing a political account of institutional change. Thus, policy is proposed, contested, and an accommodation is reached. The result is a political equilibrium that is

temporary given the dynamic nature of political conflict. In an approach that resonates with varieties of capitalism theories political survival, based on “endogenous trade theory”, is based on maintaining power: so “instead of focussing on any one particular institution, a preferable approach would be to focus on a conceptual approach that can characterize a wide variety of institutional differences” (Erlich, 2007:572).

The mechanism of change is a function of political institutions, economic institutions, interest groups and economic performance variables. Early theoretical work looked to socio-economic institutions and economic performance as predictors of change (Olson, 1982). Political institutions and economic performance are common in the literature and do have an impact in the models that follow; however, such impacts may tell us more about change as a time sensitive event rather movements away from state control. The additional institutional variables introduced into this analysis are economic and actor based and will lend a greater weight to marginal impacts and measures of incremental change. The research is more interested in the marginal effects of interest groups on port governance policy outcomes.

### **2.3.2. Institutional constraints and interests**

Privatisation will benefit some and not others and therefore it is “an intensely political phenomenon” (Feigenbaum and Henig 1994: 186). This political perspective assumes that interests are divided and in conflict; which is better suited to understanding the resistance to privatisation by politically motivated interest groups (Feigenbaum and Henig 1994). The process of cause and effect relies on the concept of cost/benefit calculations that incentivise or otherwise interests to resist change, and political actors to promote accommodative policy solutions. Politically motivated interests do not operate in a vacuum in that they need, assuming they have the capacity in scale and access, to exert pressure on political actors. Decision makers operate as part of a structure, in part constitutional, and are characterised as political institutions. It is unlikely that in reality the process is not iterative where policy makers seek to balance the political costs and benefits of a policy proposal. In the container port industry, there are two notable factor based interest groups: port users (capital) and labour.

Functional arguments on liberalisation processes suggest that the principal driver in policy formation is the net effect on the productive capacity of an economy (Streeck and Kenworthy, 2005). Policy makers look for the best fit or optimum solution to

modernise, to enhance competitiveness and efficiency. In such an ideal scenario, where policy makers are free to do what is considered industry best practice, one would expect policy outcomes to converge on an accepted view of what is appropriate. In the case of international ports, the World Bank has developed a recommended reform package (WBPRTK, 2003). The data herein shows a significant divergence from this normative solution and thus functional arguments are considered insufficient. This perhaps is not difficult to understand as economic studies tend to focus on what should be rather than the political science approach of unpacking what happened and why.

Such norm development perhaps reflects the international agenda setting dynamic in the overall policy process. Extending this view of the policy process into the domestic arena relies on economic arguments that characterise actors as rational beings focussed on minimising cost and maximising benefits. Thus, the process includes the political institutions promoting policies that produce a net political benefit to themselves. Equally, interest groups, that may pay a very high social and economic cost as a result of privatisation, will be prepared to spend political capital to resist the policy proposed. At some point a balance of relative costs and benefits is arrived at, which by definition implies a degree of interaction. Causal processes that rely on path dependency arguments suggest that political options may be limited by the existing policy framework, direct and indirect. This is because the political costs of switching will be high. This is particularly so when industry interest groups overcome collective action costs and further limit political choices, that is, raise the costs of change. Policy makers therefore frame policy, and its implementation, so as to minimise the political cost and maximise the benefits. To do this they need to accommodate the views of domestic interests, which are readily known when those same interest groups overcome collective action constraints. It also assumes that these groups have a voice, through protest action or on the basis of cooperation, in the policy making process.

It is this institutional capacity that is of interest to neo-institutionalists. To “the extent that they impute a bureaucratic interest in resisting privatisation, as the rational choice literature assumes, the neo-institutionalist theories can illuminate the variations in privatisation experiences across countries by highlighting the variations in institutional capacities to resist the current world fashion” (Feigenbaum and Henig, 1997:354). The proposition to be tested is that as factor resistance rises the transfer of power to private actors will be less.

Port communities experience disproportional social and economic costs when the international markets take on functions previously managed by state entities. A common argument in globalisation research is that capital, neoliberal capitalism is dominant, and therefore labour no longer has an impact or a national role. Dock labour, as a constituent of the larger state employee constituency, is expected to lose many privileges in a privatisation process (Doyle 2010; Davies 2007). The port sector has traditionally been a significant employer of unskilled or semi-skilled labour; and in some states, is seen as an employer of last resort for the state. The introduction of modern container handling techniques changed the dynamics of port operations to skilled operations. Thus significant unemployment, often coupled with enormous social dislocation of waterfront communities, followed. This process is accelerated by the transfer of power to private and often foreign entities, which leads profit-seeking enterprises to minimise their labour costs and maximise the return from high value immovable assets. Thus the “immobility of capital and the costs of strike action to shipping lines, customers and wider economic interests, significantly increases the bargaining power of labour” (Turnbull 2000: 3). Further “dockworkers in most countries are renowned as a well-organised and traditionally militant occupational group” (Turnbull 2000:3).

The dynamics of the policy process see governments proposing a privatisation policy that may already incorporate labour friendly modifications or that may be followed by protest and resistance to the proposed policy. In the case of the United Kingdom, labour resistance was significant. “The stated intention of Thatcher’s policy was to improve economic efficiency, but the conservative party was hardly oblivious to the possibility that it would weaken organised labour and thus change the political game” (Feigenbaum and Henig, 1997:341). It is this political process, sometimes characterised as a game, which is the mechanism of interest. Labour will pay a high price in a privatisation programme. Political actors will balance their own potential costs against the benefits of the modernisation agenda. In Thatcher’s case, the assessment seemed to be that the changes they hoped for in general society would ultimately produce political gains to offset the costs. The analysis herein is not directed at lobbying and interest group dynamics, but it does examine the relationship between labour power and policy outcomes. Causally therefore, labour representation will exert pressure on political actors through lobbying, negotiating where the institutional environment allows, and protest actions in countries where the institutional environment allows for such activism. Where this arises, governments will respond, delay, or modify policy

proposals. This is the proposed causal process that is based on pressure from labour and a cost/benefit analysis by political actors' intent on survival.

The inclusion of domestic shipping (i.e. traders) is analogous to the domestic traders that sought protection from free trade in the inter-war trading system (Henisz and Zelner 2006:267). Domestic ship owners can be a potent political force. In a wider definition of port services, many are provided directly and indirectly by these same ship owners. They can lobby for favourable policies such as special tax status and incentives to maintain a viable domestic ship registry. For example, they are likely to exert concerted pressure to maintain their status as service providers domestically through licencing regimes, limits to foreign ownership and control of port operations, and limits on state investments that support the role of international service providers. Through legislative regimes such as cabotage,<sup>6</sup> segments of the shipping market are reserved for their control. The essential logic for such strategies is to avoid the high costs of privatisation given that international operators, dominated by a relatively small group of corporations, will tend to self-handle their ships and cargo. Thus, domestic operators may lose significant business. Alternatively, by restricting access to the market place they can benefit from high rents. Traditionally maintaining a national register of shipping is an economic and political statement for a significant maritime nation. This is, in part, related to the requirement of ship owners to hand over their vessels to the sovereign in times of war. In more recent times vessel owners seek out the country of registration based on cost considerations. These include regulatory compliance and tax obligations. Thus maintaining a significant registry of shipping is indicative of a constituency that has the capacity to exert pressure on policy makers. It equally indicates that political actors are sensitive to the representations of this constituency.

It is common for ports to share space with a security installation such as a naval yard. In some economies, the military may have an economic institutional place in domestic politics. Chapter 6 will discuss in depth the scenarios where security interests may have an interest in port policy developments. There is little literature on this proposition however, based on experience it is more likely that security interests are concerned about whom participates. This is controlled for in the models discussed in Chapter 5.

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<sup>6</sup> Cabotage is navigation between ports along the coastline or waterways of a single nation, which distinguishes it from overseas travel between ports in different countries. The term cabotage is derived from the surname of the 16th century Venetian navigator, Sebastian Cabot. It is employed as a protectionist mechanism to ensure domestic shipping has exclusive rights to certain trade and cargo.

The proposition to be tested is that as factor resistance rises the transfer of economic power to private actors will be less. Both domestic capital and labour are of interest, although the role of labour in providing resistance to liberalisation policies remains an enduring topic in the industry (Turnbull, 2012). The first two hypotheses are set out below:

H1: that as domestic maritime capital power in the economy rises then the level of privatisation in ports will be lower.

H2: that as the power of dock labour rises then the level of privatisation in ports will be lower.

### **2.3.3. Clusters and Normative models**

One proposition advanced in this thesis is that regional convergence, because of similar historical experiences, can be observed across countries with global container ports. This is analogous to varieties of capitalism theory. The argument is founded on the idea that the location matters in policy formation and in regional path dependence theories for a number of reasons, not least that of region-specific institutions and regulatory frameworks (Martin and Sunley, 2006). The comparative capitalism literature “largely rejects the convergence hypothesis that national varieties of capitalism will move toward a single model” (Jackson and Deeg, 2008: 694). Research in this field has focussed on identifying and categorising differences in systems at various levels such as business, governance, and national regulation; and it has focussed on understanding change in institutional structures in response to globalising markets and governance. Hall & Soskice (2001:8) define types of capitalism as two ideal types: liberal market economies (LME) and coordinated market economies (CME). Schmidt (2009:521) makes use of a third type to allow for mixed economies. For some “this diversity has been seen as a matter of evolutionary development. This was true of Max Weber’s ideal-type approach, and of the advocates of post-war modernisation theory; and those who followed Antonio Gramsci’s identification of a Fordist phase of capitalism that was deemed to succeed the classic free-market form” (Crouch 2005: 439). The challenge in developing theoretically robust typologies is in categorising the many forms of institutions across many states in a parsimonious fashion because of complexity and because different sectors may fit different models of capitalism within each state. It is made more difficult when studies are extended beyond western countries to include

institutional frameworks in different cultural and historical settings; and when states fit different categories at different times.

The argument for considering capitalism as consisting of a number of variants has its *locus classicus* in Andrew Schonfield's 1965 work, who considered the efficiency of different economies based on different institutional arrangements such as central planning (Crouch 2005:439). Colin Crouch argues that the approach therefore runs counter to the argument of economic globalisation moving inexorably towards convergence and the liberal free market model (Crouch, 2005). The theoretical foundations are based on institutionalism and the dynamics of change. Therefore, to better frame the analysis the basic unit of institutionalism, the state, requires deconstruction. First, the political and economic structure requires definition and second, the premise that the state as the primary unit of analysis requires challenge. In terms of structure, through which economic and political actors can operate, there is a requirement to define the key elements of the institutional framework for economic policymaking and implementation. They will range from complete devolution to the market and private hands, to central planning and management of the economy. In terms of the state there are two challenges to the economic unit and its sovereignty, first the boundaries of an economy may no longer equate to the boundaries of the legal entity in an open economy; and concurrently some powerful actors in the economy may be non-nationals such as international institutions and Multi-National Corporations (MNC) (Crouch 2005: 451). Thus an ambitious approach to research will attempt to map the forms of capitalism found in each state at a point in time, the possibility of regional clusters, and the changes that occur in institutional arrangements over time. Research to date has assumed model definitions and attempted to categorise states, mainly in Europe, into two or perhaps three variants. The assumptions made were largely based on observations of leading examples, a theoretical weakness (Amable, 2003).

Richard Whitley (1999) moves away from the western model of analysis based on neoliberalism and its opposite and considers Asian scenarios to develop six models of capitalism based on business systems: fragmented, coordinated industrial district, compartmentalised, state organised, collaborative, and highly coordinated. This micro economic approach assumes five models of the firm: opportunist, artisan, isolated hierarchy, collaborative hierarchy and allied hierarchy. Bruno Amable (2003) uses OECD data to chart characteristics and develop a typology of five country types: Market based (primarily Anglophone), Social democratic (Nordic), Asian (Japan and

Korea), Mediterranean (Southern Europe), and Continental Europe. He demonstrates that using a scientific approach a typology, not based on assumed paradigm models, is possible while allowing for exceptions. It is this approach, rather than more common dualist models described earlier, that will be applied to data on port governance institutions across many regions, and over an extended time period, to group states into empirically driven country types. The varieties in the literature argue for different forms of capitalism and often cluster geographically. This is discussed further in the next section and in Chapter 6, where an analysis of port governance against economic and political openness variables reveals country types again clustering regionally.

The dynamics of change are at the heart of such comparative political economy (CPE) research. Much work has considered the causal story from the international perspective, that is, the formation of an idea (perhaps in a domestic or international institutional setting), its negotiation within international society, and its diffusion to domestic settings. The dynamic assumes that states will inevitably reform to converge on the normative construct, for example public sector liberalisation. This may well be true of the dichotomy to reform or not but is not the complete casual story when considering the policy details. To better understand the policy framework and its implementation, we must consider the domestic decision making environment. A theoretical approach might set a neoclassical model of perfect markets as the base line for analysis and contrast actual data in terms of their proximity or distance from this theoretical ‘ideal-type’. For example coding the presence or otherwise of certain perfect market characteristics would facilitate comparisons against the ideal-type and each other. It would also facilitate the grouping of similar countries into clusters.

#### **2.3.4. Port Clusters**

The basic varieties of capitalism argument pushes against the simplicity of globalisation theses. Defining typologies is a useful analytical tool in comparative political economy and as such this research will make a contribution to the literature. A cluster typology is advanced that brings the concept of nationalism and identity into contingent explanations of policy variance. While this is analogous to typologies proffered as Varieties of Capitalism (Hall and Soskice, 2001) it is limited to a description of how states have integrated into the international economy through trading ports rather than a wider characterisation of how the national economy is organised. Varieties of capitalism concepts refer to economic paradigms and political culture; when considering privatisation the rationalist argument is that such paradigms are essentially a product of

historical practices and therefore immutable (Appel, 2000:540). Thus, countries with similar historical practices may respond in similar fashion to ideational diffusion.

The maritime economics literature describes the varieties of policy solutions in terms of varieties of privatisation, commercialisation, and liberalisation (Gong et al, 2012:39; Tongzon, 2008). Grouping countries around common economic practices is not new (Bennathon and Walters, 1979; Lee and Flynn, 2011). The European Sea Ports Organisation (ESPO) propose a “geo-governance typology: ‘Hanse’; ‘New Hanse’; ‘Anglo-Saxon’; ‘Latin’; ‘New Latin’ for European ports (ESPO, 2010:7). Bennathon and Walters (1979) proposed two port governance categories. They examined infrastructure investments and port pricing mechanisms on the proposition that there are two types of models. First, the continental or European model is based on the concept of contributing to the national or regional socio-economic welfare. Thus, investments are assessed based on a wider economic rather than a firm specific financial appraisal. Second, the Anglo-Saxon model assumes that the port enterprise, howsoever governed, must stand on its own “bottom” and make a return directly for the investor (Bennathon and Walters, 1979). Anglo-Saxon economic ideology argues that the market is the more efficient means to deliver economic growth and contribute to the wider economy.

Lee and Flynn (2011) add a further type to the analysis by proposing Asian ports as targets for state investment based on a wider contribution to the national economic development. The difference with the European model appears to be one of degree of national interest in that Asian state investors will contribute greater relative sums and not seek a direct return from the port. In the oil rich Middle East non-democratic states there is an argument that they represent a fourth category of regime, as economic national objectives are difficult to differentiate from elite driven objectives. Philosophically such a benevolent national economic objective may be a contradiction in terms in dictatorships, often monarchies.

Another distinguishing factor across clusters is the relationship between pricing policy and the competitive environment. In the European model intra-port and inter-port competition is relevant whereas in the case of Anglo-Saxon models intra port competition is not as much a policy concern in the data. In the Asian model and in the Middle East competition appears to function on a state versus state basis and the port model is not a competition policy concern. The four categories are based on differentiating economic strategies employed across port service market dimensions.

The philosophical difference between the models is the level of state intervention in terms of operations, investment, ownership, pricing and project planning. The policy process assumes such strategies flow from shared social, economic and political characteristics, which are a function of historical pathways. This extends the typological approach in maritime literature (Bennathon and Walters, 1979; Lee and Flynn, 2011). However, it is a narrower theoretical concept than varieties of capitalism models of capitalist clusters but does draw on relevant theoretical insights.

Consistent with historical institutionalism theory, the model of country types cannot be framed as static. In the long term wider institutional conditions may change, which in turn may lead to further convergence. It might also lead to divergence. Thus the predictive value of the country clusters is temporally contingent. This typological theory is also consistent with the idea that nation states continue to pursue their national economic interests, which provides a motivational theory where such is needed. Eric Helleiner (2002) argues that such motives do not necessarily result in protectionist responses. Friedrich List is “widely accepted to have been the most important figure in developing the ideology of economic nationalism” (Helleiner, 2002:308). This can include protectionism but crucially includes autarchic economic nationalism and liberal economic nationalism (Helleiner, 2002:308). Realists regard economic nationalism as consistent with the statist tradition of thought where economic ideas are subordinate to the goal of state building and the interest of the state (Gilpin, 2001). Another view is that economic policies, taken as institutions here, are a “set of policies resulting from a shared national identity, or from the predominance of a specific nationalism in the politics of a state” (Abdalal 2001:33). Economic nationalism, as an expression of national interest, is therefore an ontological point rather than a singular policy response as it is often regarded (Helleiner, 2002). An open economy can also be taken as in the national economic interest, depending in the dominant political narrative.

Thus categorising levels of expected interventions, to manage an economic activity, provides a legitimate means to group countries around converging outcomes. This will be explored further in later chapters, based on the policy outcome measurement presented in Chapter 4. The main proposition argues that policy outcomes are a function of past policy decisions, which in turn are a function of history, place and social context. It is reasonable to extend this proposition to argue that where countries have a shared or common history, place and social context then their policy outcomes will be similar; thus policy convergence. It is a theory that is consistent with varieties of

capitalism ideas, which is based on an “intuition that more than one model can deliver economic success” (Hall and Gingerich, 2009:449). As a concept this shared history, place and context can be categorised as economic nationalism.

There are a number of differentiating factors common to typology research, which reflect an economic nationalist theme. Each group will have a shared philosophy of how interventionist the state should be in port governance, particularly in investment and pricing mechanisms. In this work, this common approach is measured as an economic institutional ‘package’. For example, where a state has constraints on foreign investment, capital movements, and equity shares then this should be reflected in a port policy with higher levels of state investment and political veto power. The expectation is that countries with a shared history, place, and social context will also have a common approach to economic governance. Therefore, their port policy outcomes are expected to converge. The groupings proposed here build on those already in the literature- Anglo, Europe, and Asia- by adding a grouping for the Middle East and North Africa (MENA).

Therefore, drawing on the varieties of capitalism metaphor, a convergence of port governance frames, within regions with similar historical paths in policy formation, is proposed. The basis of the similarity is primarily geographic based on broad concepts of historical congruence. Consistent with this grouping logic is including in developed world categories post-colonial states with a shared historical experience. The final hypothesis is below:

H3: that where nation states share common economic and political regime characteristics then port policy outcomes will tend to converge within these groups.

#### **2.4. Historical context matters**

Policy change, through the broadly defined privatisation dynamic, is assumed to be a result of “the process of economic globalisation”, which “is simply imposing constraints on the ability of states to govern the economy”; thus policy makers need to take into their calculations a “set of economic and political trade-offs” (Adserá and Boix, 2002:255). The theorised causal process argues that operational level economic policies such as public infrastructure institutional reform will change infrequently at the end stage of a process of political coordination among domestic actors with the capacity to

support, or resist, as necessary. It is also argued that where states have similar institutional characteristics then their resultant policy profiles will converge. This participation by political actors is based on the positivist premise that rational actors will engage out of self-interest to maximise group welfare. Such participation in the policy process may have many potential origins and motives, not necessarily including maximisation of national welfare. Equally, policy ideas are not necessarily based on best practice solutions as they may be constrained by complimentary institutions and socially constructed appropriateness.

While change in public infrastructure policy is the general policy construct, the specific industry case selected is the international container port sector. Privatisation of public infrastructure, including related State Owned Enterprises, has received some attention in the literature in recent years (Henisz and Zelner, 2006). As an area of economic activity, it exists in the domain previously understood as public goods. In some industry cases this characterisation is still valid, however in the port sector there has been a significant shift in ideational terms. Many port services are no longer regarded as public goods and efficiency theories argue for control to transfer to the private sector. Such functional arguments often include the caveat that exchanging a public monopoly for a private one is not acceptable and therefore the market requires a matching regulatory regime. Thus, the line between the state and the market has shifted through liberalisation, deregulation and asset sales; referred to herein as privatisation. What is of interest is that the policy outcomes globally do vary significantly, and are conceptualised as existing on a states and markets continuum.

As already noted, this work does not extend to producing a grand theory in comparative political economy. This “loss of ambition” is driven by the lack of suitable cross-national and temporal data coupled with positivist requirements for rigorous empirical testing (Cohen 2008:141). The area of study is public infrastructure and specifically international container ports. While economic theory of what ought to be points to the private sector as the most efficient actors in the market the case of international container ports argues that there is a marginal resistance role for factor interests, and support for arguments of regional rather than global policy convergence.

This literature review identified a number of research opportunities in institutional theories of change and in understanding port policy development. The first is the lack of an operational level study of policy change in the maritime sector based on

institutionalism theories in international political economy. The second is the research opportunity of linking institutionalism with the politics of coordination in this operational policy context. This pays less regard to motives in policy development as agenda setting can have several origins, including the internal de-civilising of powerful interests or self-interest power based calculations, or asymmetric normative initiatives or competitive economic pressure. The premise here is that motives are reflected in the agenda rather than in the coordination process to follow.

The chapter started from the premise that interdependence, trade growth, technological innovation, and liberal economic ideology are critical exogenous factors in port governance reform. However they are considered here as factors that drive the policy agenda. The more interesting puzzle is in how the domestic institutions and actors respond to the push for change. This is understood as opening the 'black box'. A clearly defined unit of analysis is required and theoretical and pragmatic research issues are explored including a detailed consideration of the complex organism that is a port and the deconstruction of public goods ideas thus privileging privatisation as appropriate policy. The chapter also explores at length the specific theoretical assumptions required in this 'path dependent' model of policy change. Essentially historical context matters.

### **Chapter 3: Explaining policy variance: the research design**

Public infrastructure and related services provide an opportunity to examine the relative power of the State and the private sector in terms of market coordination. The purpose of this research is to take a rational approach to uncovering verifiable evidence of such a shift in power from the nation-state, with explanations for such a change in power relations. This is a highly contested political space, with variable outcomes observable across a range of economic and political contexts. This research seeks to measure the extent of this variance; but more importantly, it seeks to provide explanations for the variance. The literature review in Chapter 2 concludes with a theoretical proposition based on concepts of path dependency, more specifically by including institutional and actor variables in hypothesised models of policy change.

One measure commonly referenced as an indicator of globalisation is trade growth (Jacks and Pendakua, 2010). Such growth required the means to transport the goods and the maritime industry adapted accordingly. The port sector, driven by a technological shift to the standardised freight container, is continuously faced with market demand for change and cost reduction. Policy makers responded with schemes of devolution, liberalisation, deregulation, and privatisation (Brooks, 2004; Brooks and Pallis, 2012). While there is an overlap in meaning across these terms the dependent variable of interest is the actual policy outcome. Historical institutionalism is the theoretical frame for the analysis based on the proposition that political, social and economic context does matter in explaining domestic policy responses to international demands for best practice prescriptions for public services. The theory proffered employs economic arguments of rational utility calculation within the epistemological frame of neo-institutionalism. This does not imply that best practice will become policy but does suggest that political institutions will mediate social spaces to produce a policy that ensures, or enhances, executive support. Much policy research, as discussed in Chapter 2, is based on comparative case studies; and there is little work of a quantitative nature across countries and across time. Thus, this research seeks to explain container port policy change in leading maritime countries across a three-decade period. This thesis considers two bodies of evidence in a mixed method strategy; first, regression of an original times series cross section dataset; and second, within case analysis of selected country studies.

The literature review in Chapter 2 raised a number of methodological challenges. First, the reductionist approach appears to rule out any prospect of a grand theory, although it may be regarded as part of the journey (Cohen, 2008). Second, comparative studies in political economy tend to focus on developed and industrialised countries partly because there are useful data available; thus, many transition and developing countries are not examined as often. Third, in similar vein the countries examined tend to be more democratic and highly integrated into the global economy; which gives an added weight to modernisation and efficiency theories. Fourth, where developing states are considered in terms of trade or financial systems their apparent weakness adds weight to systemic coercion theories. Fifth, measuring privatisation policy outcomes as a dependent variable has tended to focus on economy wide measures such as privatisation revenues or the size of state involvement in the economy. This in effect only considers, in part, the transfer of property to the control of the market while not considering issues of competition and regulation consistent with a broader definition of privatisation. Finally, countries adapt differently partly because of their histories and therefore their concepts of national interest remain different (Helleiner, 2002). Variables that allow for this variety in historical and nationalist context are difficult to include in quantitative studies in comparative political economy, and therefore such studies are potentially subject to missing variable bias.

The literature review also identified a number of theoretical issues to be resolved and blended into a theory that explains the policy development process for public infrastructure. First, there is a need to parse the process into the agenda setting, the policy framing, and the coordination of political actors that results in an actual implemented policy. It is this latter policy action phase, that is of interest and it allows for policy inaction, as well as private sector responses to policy instruments. Second, within historical institutionalism the concept of policy levels is common (Pierson, 2000; Kay, 2005; Howlett, 2009). Positioning public infrastructure within the operational level of policymaking provides the theoretical justification for differentiating the causal mechanism and explanatory variables from theories that explain constitutional level change. This differentiates, for example, capital control policy from public infrastructure policy mechanisms. Theories of change must also account for time and timing within a sequence of events (De Boef and Keele, 2008). Evidence that public infrastructure policy change is slow and unidirectional for the period under review is required. This assumes that change is iterative with a movement in power towards the

private sector. Lastly, for actors to influence policy it requires evidence of institutional capacity to do so. It is in the linking of institutional theory and a theory of coalitional politics that fills a noted research deficit (Amable and Palombarini, 2009). This is proposed as an innovative theoretical frame for explaining policy change in public infrastructure.

Joining quantitative and qualitative work is the appropriate approach given the research objectives, which include making a theoretical and methodological contribution to the literature. “This approach is particularly well suited to cross-national analysis, where investigators tend to be interested not only in general patterns (as one might be in the study of, say, voting behaviour) but also in the analysis of specific country cases” (Lieberman 2005: 450). King, Keohane and Verba (1994) set the scene for mixed methods by characterising casework as a support for the main strategy of social science. In a critique of this work Sidney Tarrow (2004) argued for much greater integration of the two methods. Brady and Collier (2004) take the argument further by placing casework firmly in the positivist tradition and arguing that standards are important. They focus on how casework adds to knowledge especially in addressing some of the limitations of quantitative analysis. George and Bennett (2005) provide guidance and formality for case analysis, including within case analysis seeking theoretical congruence or deviance. This latter approach is consistent with structural realist theories and is intended to identify any intervening causal processes in deviant cases (George and Bennett, 2005:203). Lieberman (2005) argues for a particular form of integrated or nested research where the quantitative and qualitative inform each other in a looping mechanism; subject to clearly defined scope definition to avoid endless loops.

Mixed-methods assume that the researcher’s hypotheses, along with rival theories, are tested in statistical models based on a large set of units and observations; and complemented by an analytical narrative that identifies complex interaction effects among non-independent theoretically relevant variables (George and Bennett, 2005: 212; Bennett and Elman, 2006). Quantitative models assume strong hypotheses and good data and they can filter out alternatives leading to better focus or justification for case study design. Beyond the premise that statistical results may not be robust or they may not be substantive lies the opportunity to explain deviant cases from the theory proposed; to propose a country typology; and to develop the proposed theory further.

The aims of the research are positivist and have two interconnected parts. First the aim is to estimate the marginal impact of interest groups on policy implementation and thus estimate the mean causal effect of a difference in an explanatory variable on the value of a dependent variable (King, Keohane and Verba, 1994:85). Second, the aim is to explain actual outcomes in terms of divergence or convergence on a normative policy, bringing additional observations that explore further ideas of path dependence and economic nationalism. The research strategy is a mixed methodology based on the statistical modelling of an innovative time series cross section dataset to test the hypotheses; followed by an analytical narrative intended to explore evidence of regional policy convergence and labour resistance to change.

The thesis proposition has a number of critical elements for which a set of pragmatic testing assumptions are required. These assumptions, implied by the underlying theories, specify how the process can be operationalised, the data requirements, and the standard of evidence required to support the proposition. The empirical elements of the process are the unit of analysis, stages in the change process, issues of time, policy levels in the political economy, and an account of policy coordination. Such a complex set of process elements along with the variables required to represent them suggest a large set of possible outcomes. Therefore, a number of pragmatic assumptions are made to produce a parsimonious model of change where hypotheses can be empirically examined.

The chapter expands on the methodological and theoretical issues described thus far with a discussion of the testing assumptions, research methodology, and the rationale for the country case selections.

### **3.1. A theory**

Policy change in the container port sector is theorised here as functioning at the operational level of the domestic economy, through a process of political coordination among institutionally capable institutions and actors. The theorised explanation for enduring cross national policy variance assumes that political and social context matters such that policy choices are ‘path dependent’. Examining policy based on actual implemented profiles, which implicitly reflects the response of the private sector to policy change (or the lack thereof) at various political levels, provides the opportunity to test the marginal influence of domestic actors. The actors of interest are domestic

capital and dock labour. Critically the policy outcome is not a change event but is a position at a point in time along the continuum between states and markets. As this measure is a function of political and economic actions, it does not require a legislative driver. Because historical context matters, regional convergence is expected. Specifically the hypotheses tested in the quantitative and qualitative studies are:

H1: that as domestic maritime capital power in the economy rises then the level of privatisation in ports will be lower.

H2: that as the power of dock labour rises then the level of privatisation in ports will be lower.

H3: that where nation states share common economic and political regime characteristics then port policy outcomes will tend to converge within these groups.

### **3.2. Selecting the countries**

In an earlier section a number of methodological issues were identified with this area of research. One is the problem of limited country data sets, which places important constraints on the range of interest groups and “domestic political institutions” analysed (Henisz and Mansfield, 2006:189). There is little evidence of institutional studies across illiberal nation-states (Streeck and Kenworthy 2005). This results in a dearth of studies that look to non-democratic and/or less developed states for insights into policy change, in an expanding capitalist trading universe. Indeed the quantitative approach is rare in comparative studies of policy change (Hall and Gingerich 2009). Pierson (2000) argues that “variable-centered analyses are based, however, on some questionable assumptions about how the social world works. The significance of such variables is frequently distorted when they are ripped from their temporal context. There is often a strong case to be made for shifting from snapshots to moving pictures” (Pierson, 2000:72). Thus, any quantitative modelling is pushing the boundaries of knowledge; however, there is an obvious need to supplement the results with rigorous qualitative work. This work can then be characterised as a mixed methods strategy.

International container ports, and the institutional model of change proposed, provide an opportunity to break free of typical constraints on country selection. In an interdependent world with extensive trade networks transporting goods in a standardised form, each state must integrate into the capitalist trading system.

Therefore, all states, across a variety of political configurations, require compliant institutions. Chapter 4 will describe in detail this political variety and the variety of policy outcomes. However, it is appropriate here to describe the country selection process.

The maritime industry has a long history of interdependent networks. It also has a long history of actors overcoming collective action problems in the international and domestic arenas. It is an industry case that is useful in terms of addressing the aims of this research, which include testing domestic interest group hypotheses, peripheral in the literature, that are relevant to public infrastructure privatisation. The testing requires a comparable unit of analysis. At a theoretical foundation level states are conceptualised as historical individuals in the Weberian sociological context, therefore each is unique and must be conceived as dynamic and historically contingent. In the positivist paradigm, the nation-state is the prime unit of analysis. In the international container port sector, therefore the representation of port governance policy appears to require an assessment across all ports in that country. This is problematic given the wide variety in port types, scale and service configurations. Ports are “long-lived and costly, similar to many utility sectors and transport infrastructure such as highways. However, unlike utilities and highways, ports provide a wide variety of services and functions rather than a few specific outputs”; there are also “multiple actors in the public and private sectors and complex decision-making and production in port development, management and operation” (Cheon, 2007:76).

Calculating an average, minimum, or maximum policy profile for a country is problematic and costly, while not necessarily capturing the extent to which political actors will transfer power to the private sector in response to international market demand. Thus, the logical proxy for state policy is to take the port with the maximum level of ‘privatisation’. This again is problematic given the complex mix of services, actors, and asset profiles. The range of port dimensions are reduced in order to provide a rational comparative unit of analysis. Thus, the port definition is narrowed to the load on/load off container market, and the major service categories of cargo and ship handling. A further empirical requirement is to select ports that are fully integrated into global trading networks with a potential internal competitive market for cargo handling services. Finally, the port needs to be of sufficient scale where political contestation, in response to global market dynamics, over port policy can be reasonably assumed. This

would apply in the larger ports as the scale of investment and development coordination required is reasonably assumed to be political.

The country selection is based on the largest container ports in 2007 with sufficient scale to support more than one container terminal. The selection comes from a dataset developed by Containerisation International ([www.ci-online.co.uk](http://www.ci-online.co.uk)). In a few of the countries there is more than one qualifying port. Taking the leading port as the proxy value for state policy is a pragmatic decision, and it is argued that there is no material loss in comparative value. First, the number of countries that fit this profile is small at seven. Second China has nine ports in the top level of container ports in 2007. Their largest port of Shanghai is now the largest in the world, second in 2007. Including all ports as separate units in the analysis would skew the dataset unduly towards the Asian group (see regional spread data in Chapter 4, Table 4.2). Taking their largest as a proxy for all countries is based on the premise that the largest is the most integrated into the global economy and therefore its policy profile is the one of direct value to the study. The unit of analysis is therefore each country represented in the top fifty container ports in 2007 with the largest container port for each country acting as a proxy unit. This does not imply that the largest at a point in time is the most privatised but does reflect the selection requirement to identify ports where globalisation is most likely to have an impact. These drive the policy agenda and in turn the political process. Scale is also useful in arguing that domestic actors, capital and labour, can overcome collective action costs and mobilise to resist or support. This is a political point rather than one of economic scale.

Data from twenty-nine countries for the period 1980 to 2010 are collected. The selected year of 2007 reflects the peak volume level before the downturn in trade. Therefore, it is a set of units across a range of nations (cross section), with a reasonable regional spread, observed over a substantial length of time (time series). Three countries are dropped from the data. Vietnam contains insufficient data before 1994, as there was little activity before then. Hong Kong contains insufficient variance on independent variables as most datasets treat it as a region of mainland China. Taiwan is also dropped from the data modelling because of constraints on data as institutions that produce datasets take a variety of approaches to recording data within China's sphere of interest. The results are a time series cross section (TSCS) dataset, listed in Table 3.1, where hypotheses defined

above are tested, while controlled for explanations such as globalisation of capital and trade, economic conditions, political institutions, political decision constraints, and systemic variables as proxies for economic nationalism.

**Table 3.1: Countries Selected for TSCS Dataset**

<b>Group</b>	<b>Countries</b>
Anglo	United Kingdom; United States of America; South Africa; Canada; Australia
Europe	Spain; France; Belgium; Netherlands; Germany; Italy; Brazil
Asia	India; Sri Lanka; Indonesia; Singapore; Malaysia; Thailand; Philippines; South Korea; Japan; China
MENA	Egypt; UAE (Dubai); Saudi Arabia; Oman

Chapter 5 provides a further discussion on the selection criteria. The dimensions of the dataset (Time X Units), at thirty-one ( $T > 20$ ) for the critical time period, and at twenty-six for countries are statistically sufficient for the type of modelling techniques common in time series cross section data sets (Beck and Katz, 1995:645; 2001:342). The modelling approach is discussed next while the more technical aspects are followed up in Chapter 5.

### **3.3. Modelling the data**

Taking a set of sufficient units observed over a lengthy time period it is possible to test for statistically significant associations between the independent and dependent variables using regression techniques. The objective is to find substantively interesting features in the data (Beck and Katz, 2011:351). Nonetheless, the treatments applied in the model are consistent with recommended practice (De Boef and Keele, 2008:186). The testing is one-dimensional but sufficient to identify useful patterns in the data for further examination through analytical narrative. Theories about politics typically tell us only generally how inputs relate to processes we care about; and they “are nearly always silent on which lags matter” (De Boef and Keele, 2008:186). The key modelling risk associated with such work is not accounting correctly for the effect of time (Buthe, 2002). There is a strong trend in the literature towards a standard set of corrective actions proposed in the work, which include the specification of lagged variables (Beck and Katz 1995, 2011).

The change process of interest assumes that there is little decay in the effect of history on the current policy outcome value. Therefore, it is logical to include past values in the model specification, that is, a lagged dependent variable (LDV). The assumption required for the model employed here is that the past does matter “for the current values of the process being studied”; and if “one assumes that history matters, OLS with an LDV model remains a good choice” (Keele and Kelly, 2006:203). The testing will include a number of regression models and add value to the substantive inferences generated (Williams and Whitten, 2012:685). This will start with a general model including country fixed effects and add time lags, such as a lagged dependent variable, to provide a better analysis of the process dynamics (De Boef and Keele, 2008, 199). As this is a time series cross section model further treatments include a linear regression (OLS) with panel corrected standard errors (Beck and Katz 1995, 2011). This is a treatment of the data that confines any within country unit (panel) effects to it and therefore is proposed as a better means to calculate standard errors. It assumes that country specific effects are the same across the time period. This use of Ordinary Least Squares (OLS) regression is still a valid workhorse of political methodology; and in the context of comparative political economy using Time Series Cross Section (TSCS) data it is considered as the standard (Beck and Katz, 1995:634; Keele and Kelly, 2005:203; Beck and Katz, 2011:350).

The policy pattern for international container ports trends towards greater private sector participation in the container port market over time. This dynamic trend in the model has a strong effect on the regression with past values influencing later values. The correcting action proposed is to include the dependent variable for the previous year in the models. This is a disputed treatment, as countries with slow moving policy change will be dominated by the accumulated impact of past policy (Achen, 2000). The results in the data show some sympathy for this line of argument. However, the literature rejects this argument by way of statistical simulations and argues that including the lagged dependent variable make theoretical sense where the past matters (Keele and Kelly, 2005:203; Beck and Katz, 2011:350). This is a key point of academic contention and it “seems that the current default response to lagged dependent variables is suspicion if not outright objection” (Keele and Kelly, 2005:187). The goal is not to break new technical ground but to follow logic of careful specification in a general model added to with lagged treatments to gain some insight into the temporal dynamics

of a political process. Therefore a “theoretically motivated reason to include a lagged dependent variable is to capture, through specification, a type of dynamics that frequently occurs in politics” (Keele and Kelly, 2005:188). The assumption is that policy is adapted from previous values, based on new information.

The literature highlights a number of weaknesses in how the techniques are applied in published works (De Boef and Keele, 2008:184); including a lack of connection with the testable theory and the politics of equilibrium, plus the poor interpretive approaches to the effects of time dynamics. The modelling approach here essentially adapts an iterative strategy that builds from a base model and presents the results as treatments are added, including the lagged dependent variable (De Boef and Keele, 2008). Thus, comparisons across models can be used to understand the dynamics of change or inertia in institutional change. By including past values of institutional variables in the models the effects of past policy in country groups are accounted for (Beck, 2001:280).

A variant of the model will test the impact of specified country groups as part explanation for policy outcomes by way of a statistical absorption technique that allows for the common effects of the categories institutional context. While temporal dynamics are the more complex to model, spatial dynamics are of value here also. These statistical measures are explored in detail in Chapter 5. The objective is to avoid a mechanistic approach and to focus on the process theory, in the context of political dynamics (Keele and Kelly, 2005:187). The modelling will seek out patterns in the data across time and space as well as test for marginal impacts of independent variables across the different models.

The innovative feature of the data is the definition and collection of a new dependent variable to measure policy outcomes. Privatisation is defined as the transfer of economic functions to the private sector, through mechanisms of liberalisation, deregulation and asset sales. This original metric quantifies outcomes along a state-market continuum in terms of control over the market functions of competition, property, and regulation. This variable is quite flexible and is used as an additive scale from zero to five with the higher score indicating a greater level of privatisation. The data is also collapsed to six panels based on five-year averages of the variables given that the time series cross section data have a strong temporal trend and a relatively small number of change events. The results for both modelling exercises provide parameter

estimates, although they may be subject to misspecification or measurement error. The variety of countries in the models and nature of relatively low-level policy change in political terms may suggest varied and complex causal patterns. This along with potential ignorance of country specific characteristics may find their way into the error terms. Thus while quantitative analysis avoids the risk of determinism that may follow from multiple case studies there are limits to its efficacy (Ragin 2004:136). They are however, only intended to make inferences based on probabilities (King, Keohane and Verba, 1994). Statistical models also provide an efficient means of screening rival explanations and posing questions for a qualitative follow up to derive better theories for the unexplained variance; or to confirm it is just noise in the model.

A key design decision is required as to the relative concentration between data modelling and case-based analytical narrative. This is an issue of research efficiency. A particular constraint of cross-national analysis of this type is that each policy is a function of its past versions, and interaction with other institutions. Specifically the modelling risks are of dependent variable correlation across time, and unpicking the interactive effects of institutional configurations. In the case of temporal effects there are modelling solutions available.

Another risk is in ignoring endogeneity in the data. To model the different interactions in terms of sequence, if observable, and policy levels is problematic. It suggests a multi-level game theoretic or nested model. However, it is possible that exploring relevant country cases will also provide a means to explaining institutional change in the container port sector. Thus, the latter is adopted as a research strategy based on its relative efficiency. Before discussing country case selection the dependent and explanatory variable options require definition.

### **3.4. The Dependent Variable**

The problem with testing explanatory factors in path dependent processes is misspecification of the policy outcome variable (Howlett, 2009:244). As already stated the solution developed here is to measure the extent to which the state has transferred the coordination role for container port infrastructure and services to market actors. To do so this sector of the economy is parsed into its constituent elements at great length, theoretically in Chapter 2 and its calculation in Chapter 4. Theoretically, there are three dimensions to economic management of a market: competition, property rights, and

regulation. To calculate a comparable variable the dependent variable has five dimensions: competition, equity/ownership, pricing power, investment obligations and a political veto on development. This last dimension includes the coordination of port projects with national planning (Cullinane and Song, 2002; Tull and Reveley, 2002). Its empirical value is that it is a continuous variable ranging from zero to five, with five representing full market coordination by the private sector, namely ‘real’ privatisation. A score of zero represents retention, in this theoretical construct, of power within state structures.

The dependent variable is flexible in a number of ways, and two variants are used in this research. First, as a continuous variable it is applied to a regression analysis to identify statistical patterns in the data between policy outcomes and the institutional profile of the state. Second, as a measure that can be compared to a normative or benchmark value and collapsed into a binary of compliance or non-compliance with this assumed normative outcome it is used to test a country typology. It is theoretically robust and the valuations shown in Chapter 4 are consistent with research in maritime economics on privatisation of container terminals (Cullinane and Song, 2002). It is equally consistent with the maritime economics literature that looks to policy selection based on matching with the historical and social context, in this work the institutional package, and conceptualising policy outcomes as existing on a continuous spectrum rather than discrete typologies (Baltazar and Brooks, 2001; Brooks and Pallis, 2012).

### **3.5. The explanatory variables**

The process model includes three institutional vectors and one macroeconomic set of variables. They are domestic actors known as interest groups, domestic political institutions for decision making, economic or market openness institutions that condition actor responses, and economic performance metrics as operational context. This section describes the rationale for each and Chapter 5 details the specification and calculation issues for each variable, within each institutional and economic group.

#### **3.5.1. The capacity of interest groups**

Institutional theories of change are interested in actors that have the capacity as well as the motivation to engage. Interests “often have independent effect on policy choices” by refraction through political institutions (Lake, 2009:228). In neo-institutional theory, interests interact with political institutions. They also respond to contextual influences like economic institutions and economic performance. Methodologically the argument

is that “the potential impact of interests on policy outcomes, has been somewhat neglected” (Beyers and Kerrimans, 2004). They are defined by their organisation, a known political interest and informality, as they stay outside formal political institutions; whilst still potentially highly institutionalised (Beyers and Kerrimans 2004). What is more important though is recognising an interest group as politically salient when they are “structured and organised for political action” (Lake, 2009:224). This assumes a functional capacity that will be included in a coordination process, rather than risk a loss of support by their exclusion. Interest group activities are largely focussed on influencing policy outcomes, trying to force issues onto, or up the political agenda, and framing the underlying dimensions that define policy issues (Beyers and Kerrimans, 2004). This excludes actors that do not have the capacity or motivation to engage in political activities in support of or in resistance to a policy initiative. As discussed in Chapter 2 there are two industry wide groupings, labour and domestic capital, that are included as explanatory variables as actors that may engage with policy responses to economic globalisation. Other interest groups may also have an impact but are not included here because of data collection costs. For research efficiency they are included in the model error term so the variable specifications can focus on the interests typical of the privatisation narrative. The variable construction takes account of their scale in the port sector and narrative evidence of their motivation to resist privatisation.

Politics assumes interests are divided and in conflict (Feigenbaum and Henig 1994:203). Policy makers, bureaucrats, trade unions and industry associations are assumed to represent the players. Formal political institutions represent the arena. In maritime economics the transformative capacity of agency is recognised (Notteboom et al 2013). In dock labour, there are two stages of action: strike and other costly resistance followed by negotiation and accommodation with agreed distribution of rents (Rama, 1997). These “distributional conflicts among interest groups affect policy outcomes” (Henisz and Zelner 2006:266). In addition, where disproportional social and economic costs are evident then there will likely be political conflict. This is the case with dock labour (Turnbull, 2000). The objective therefore is to isolate the marginal effects of interest groups (Henisz and Zelner, 2006:268). A key point is that a difference is made between labour capacity to resist expressed as an index of worker rights and labour institutional reform that is intended to liberalise the market in favour of employers.

### **3.5.2. Political Institutions**

There are two variables used in the analysis. A measure of constitutional structure is used to test the argument that greater levels of democratisation will result in an increased role for the private sector in the economy, including in public infrastructure. Secondly, a measure of constraints in the formal institutional decision process is used to test the argument that such mechanisms will limit policy change. However, such constraints may capture the dynamics of change as an event rather than change on a continuum. Nonetheless, it is useful to expand the domestic institutional variables beyond one dimensional regime type analysis to include characteristics of domestic political institutions, including bureaucracies and preferences (Tsebelis, 2000). Such approaches have been used in macroeconomic studies (Kastner and Rector, 2003) and in the privatisation studies of state owned enterprises (Henisz, 2000a, b; Henisz and Zelner, 2006). Data from the Polity IV project provide sufficient coverage across the time frame and country units in the data. These are included in the model to improve the explanatory coverage of the models, while still hypothesising that interests add to the overall explanation.

### **3.5.3. Economic Institutions**

In the same vein as political institutions, it is assumed that economic institutions will have an impact on the policy outcome. There are two reasons for this. First, economic institutions reflect the economic policy decisions of the past and thus limit the choice sets available in a reform programme. Second, as the dependent variable captures the point on the policy continuum that the state, and the market, has moved to it is likely that such market actions take account of economic institutions that are complimentary to the port reform efforts. Thus, “one set of institutions is said to be complimentary to another when its presence raises the returns available from the other” (Hall and Gingerich, 2009:450). The latter argument is the direct point of interest in selecting variables to include in the model. They are conceptualised here as a composite set of variables that structure the level of openness to market actors in a sector of an economy. Therefore variables that condition the maritime markets response to port liberalisation are relevant to explaining policy outcomes in international container port governance. There are issues as “openness is historically rare, problematic, and a phenomenon that itself needs to be explained” (Lake, 2009:221). The Frazier Institute compiles such a set of variables based on data available from, among others, the World Bank and the IMF. By abstracting measures from their databank that are relevant to the port governance

equation it is possible to include ‘economic openness’ as a variable set. The specification and descriptive data are discussed in Chapter 5.

#### **3.5.4. Economic context**

It is possible that trends in the wider economy will impact on policy outcomes. The theory proposed here discounts this on the basis that policy and project time lines in the container port sector are assumed to be longer than any economic trend. Therefore financial crisis or long-term unemployment are unlikely to be meaningful in such an analysis. However, controls are included for economic factors of direct relevance to the sector. They are the level of foreign direct investment in the economy, the level of economic development in terms of income per capita, and the traditional measure of trade openness expressed as trade over gross domestic product.

At this point the model of change includes interests to capture marginal impacts, political institutions to reflect government capacity to reform, economic institutions to reflect the capacity of the market to respond, and economic performance variables to include trends that may impact policy from time to time. The economic openness variables take on a second dimension as a measure of past policy outcomes that are expected to constrain policy reform options. The data modelling also provides information on those countries that lie outside predicted outcome ranges. This forms the basis for the case studies discussed next.

#### **3.6. Analytical narrative**

The methodological strategy employed in the gathering of reliable and verifiable evidence for the narrative in Chapter 6 is a focussed form of process tracing, analogous to collapsing variables into categories or value bands in quantitative studies (George and Bennett, 2005:211). There are three purposes to the narrative account of change in the international port sector. First, evidence is gathered to test further the argument that labour not only has the capacity to resist but also in fact does do so. This resistance has many forms so particular instances across a range of countries are taken to illustrate this variety. Second, the documentary and interview evidence is gathered to test the argument that port policy frames are converging within identifiable country groupings. Third, there are countries that can be regarded as deviant cases in terms of their policy outcomes when compared with expected values. Three of these cases are taken to test for additional explanation for the variance, or to identify an alternative explanation.

### 3.6.1. Case Selection

The key objective of the comparative case analysis is to find out why countries differ in systematic ways. The data record for each case is a causal-process observation, which provides information about mechanism and context (Collier, Brady and Seawright, 2004: 253). This approach allows for both the testing of deductively formed hypotheses and the inductive generation of theory (Lieberman 2005:437). Structured focussed comparison provides an empirical basis for making narrative assessments of counterfactual claims that the outcome would have been different in the absence of this causal variable. It “is important to note that when using pooled time-series cross-section data, the “country” is still the unit about which one tries to make inferences, but the inclusion of historical data implies an interest in accounting for dynamics or historical patterns that describe each country, in the context of time-varying parameters” (Lieberman 2005:446). As discussed in the theory section above, time is a critical element in any comparative study of policy change. This is based on the premise that the work is more than a description of the data used in the case analysis and can bring some additional information and context to the research. This additional data will mainly come from primary documentary sources complemented by interviews in some countries; that collectively are constructed as an analytical narrative. Secondary sources are used successfully in political science (Lieberman 2005:450) and peer reviewed case articles for the selected countries are also referred to as appropriate.

There are twenty-six countries to choose from in the dataset. There are four clear targets in terms of evidence. In the case of regional convergence, all countries remain of interest and further descriptive comparisons made on categorical variants of the variables are included in the data analysis. This, in the form of scatter plots, provides further information to augment the statistical findings in the regression models. Individual country evidence is introduced to support the findings. In the case of labour, an account of major dock labour strike activity is compiled from a comprehensive search of news media and industry accounts. Brazil is as an instance of regular labour conflict while Germany is considered in contrast as an example of no apparent conflict. The United States of America is discussed in terms of the capacity of dock labour to exact rent from the change process. Dock labour narratives in the deviant cases augment this labour discussion. Third, three countries are identified as deviant, in that they are outliers in terms of their expected policy outcomes. They are the United Kingdom, which has a policy value that is the most extreme globally. South Africa is a country

included in the Anglo model because of its colonial past, and because the policy outcome appears not to have moved at all away from the state sector. Indonesia is a country that has moved very little from the state sector despite evidence of aid conditionality, financial crisis, and political institutional change through democratisation. Finally, where evidence of explanations discounted in the data models is identified across all twenty-six countries, such as financial crisis or security issues, it is included in the narrative account of policy change in the international container port sector. The three main countries cases selected are described more fully below.

The United Kingdom is considered as the country with the greatest level of privatisation and this suggests that it represents an outlier in path dependent terms. The argument is that the policy shift was influenced by systemic change rather than solely based on hypothesised policy pathways. It is also a leader in terms of adopting a liberal market coordination strategy. The narrative will challenge this argument with an account of institutional development through the twentieth century, along with an account of complementary changes in economic institutions. This leads to an account of institutional reform in labour practices. It is possible therefore, that port governance change, labelled privatisation, is not as institutionally radical as it might first seem. It is also possible that the real controversial change was in labour institutions, intended to defeat the powerful trade unions of the day. These points are explored and the propositions supported in a full account in Chapter 6.

South Africa is taken on the basis that it is recently democratised, that it has experienced extensive labour resistance, and it is post-colonial. It has proposed change in the past but at the end of the period had made no progress; and remains fully managed by the state. This makes it an outlier in the context of the Anglo model for port governance. The proposition here is that public sector trade unions do have a powerful place in the South African economy. When coupled with the discourse of ‘Apartheid’ and arguments that labour institutions need to force change in the racial balance, the political power of labour to resist is likely to be expanded. This is explored in the case study in Chapter 6 through industry press and general media coverage. It also takes account of Ministerial statements, where relevant.

Indonesia is of interest for a number of reasons. First, it has experience of financial crisis and aid conditionality. For example, international conditionality required

privatisation in the port sector. These financing conditions were in place before the Asian financial in the late 1990's, which called for privatisation across the public infrastructure sector. In the final years of the decade General Suharto, a dictator since the mid 1960's, was deposed. This led to a series of political changes that included the restoration of democracy and direct Presidential elections. It also led to devolution of substantive powers to provincial control and further calls for port privatisation<sup>7</sup>. Yet the port sector for both port administration and cargo handling remains with Pelindo<sup>8</sup>. It therefore continues to have a relatively low privatisation score. Indonesia is also the country where I had the opportunity to gather information based on extended periods on site between 2005 and 2010, including visits to Jakarta International Container Terminal. This was complemented by the opportunity to spend time, during the time span of this research project, in Indonesia conducting interviews with direct participants, from public administration and from the domestic capital side. In other visits I held discussions with managers in Pelindo across a number of ports. Finally, there are some primary documents available to chart the most recent attempt to open the port service industry to private interests since 2008. Indonesia represents the case with the widest range of variance on the independent variables.

No countries from continental Europe are used as a direct case study because there is every possibility that convergence (within region) is driven by membership of the EU and its attempts at a common ports policy. It is also possible that any shift in market coordination is similarly driven. This warrants an extensive study<sup>9</sup> of its own as there is evidence that the creation of a single market in port services has proved difficult, for the period of the study, given the range of political and historical contexts within the union. Where appropriate, material from Europe is included within the comparative cases as contrast and context on the specified themes.

### **3.7. Linking theory and data**

Specifically a theoretical framework of historical institutionalism is employed to test the proposition that domestic interest groups resist privatisation. The policy process is characterised as interactive with political actors and interest groups maximising benefits

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<sup>7</sup> I have personal experience of attending functions and announcements, while based in Jakarta, seeking private investment in public infrastructure between 2005 and 2010.

<sup>8</sup> Pelindo I, II, III, and IV are combined a State Owned Enterprise covering four regions within Indonesia.

<sup>9</sup> ESPO published an EU funded extensive study of port governance regimes across the maritime countries of the EU in 2010. It took a number of years to compile and report on (Verhoeven, 2010)

while minimising their costs to arrive at policy equilibrium. It assumes that policy makers are sensitive to the needs of interest groups and that these groups in turn have the institutional capacity to exert pressure on policy makers. In the case of the port industry, domestic port users and labour are theorised as resisting privatisation. From this analysis, regional convergence based on common historical experiences is hypothesised.

The methodological strategy is to complement regression analysis on new datasets and variables with selected case studies, focussed particularly on the labour proposition (H2). This fits with a broader interest in the demise of labour in an interdependent market place such as the globalised container trade. The nature of the outcome variable is that it is slow moving with a small number of changes per country across the period from 1980 to 2010. Therefore, the focus of the testing is on cross-national variance and on controlling for the impact of within country correlation in this heavily trending data across time. The data shows that in the port sector labour continues to be relevant and that policy outcomes do cluster around groups with similar institutional structures. This neighbourhood concept, while theoretically constructed, tends to reflect physical proximity and a shared colonial past.

In methodological terms, a number of issues are addressed. First, the new data used includes a wider range of regime types, in political and development terms, than is typical in the literature. Second, a new measure of actual privatisation outcomes is introduced to include all economic dimensions of the market place for port services. Finally issues of history and national economic models are explored through the theoretical prism of national interests to inductively propose a typology of national governance models for public infrastructure. Such theories differ from a generalizable theory in that they generate contingent explanations: “a rich and differentiated depiction of a phenomenon” (George and Bennett 2005: 235).

The following chapters build on the industry case, the explanatory propositions and the theoretical framework discussed thus far. They are also framed to reflect the mixed method design of the research with the analysis of a cross-national time series dataset and a complimentary discussion of the primary themes, domestic interest representation and regional policy convergence. However all this is contingent on a valid measure of privatisation outcomes, to which we now turn.

## Chapter 4: Measuring the retreat of the State

Measuring policy outcomes is problematic (Howlett, 2009:244). The hypotheses specified require a measure that reflects actual policy profiles, which capture the political economy dimensions of port reform. Therefore, an original measure of public utility liberalisation, which is based on measuring the power of the private sector in the operation of the market for container port services, is required as a dependent variable in this study. Five economic dimensions relevant to policy makers are examined: competition, equity participation, state aid, economic regulation, and political veto power. The metric will be constructed from these five elements into a variable where a high score will indicate a high degree of private control in the market place. The metric is also indicative of state intervention strategies, such as public investment in new assets. It therefore provides the means to test to what extent policy is state or market coordinated leading to theoretically supported evidence of regional or typological policy convergence. Most importantly, it provides a basis to differentiate policy outcomes cross nationally and test the argument that they are historically contingent.

Container ports represent an excellent symbol of twentieth century globalisation (Cullinane and Song, 2002:59). They reflect investments by global maritime enterprises, globalised production processes, technology transfers, and growth in global trade flows. More particularly investments in modern container ports reflect the shift from a state led supply focus to a market led demand approach (Van de Voorde, 2005). Maritime economics literature has categorised port privatisation based on an assessment of the operational and functional structure of the port organisation (Baird 1995, 1999; Baltazar and Brooks 2001; Bichou and Gray 2005). This approach has the merit of parsimony but is problematic in a comparative test. It is difficult to categorise ports into the relevant matrix and while two ports may be categorised in a similar fashion their liberalisation profile can be different. Political science literature tends to consider public infrastructure privatisation in macro-economic terms such as revenues generated by asset sales as a proportion of national income. Again, these have the merit of parsimony but are problematic in explaining policy variation.

Policy makers are faced with a new paradigm where concepts of public goods are challenged by an international trend towards liberalisation. The discussion of the dependent variable elements will lean on the 'public goods' argument, and on economic theories of a functioning market place. Specifically it will focus on a functional matrix

proposed by Baltazar and Brooks (2001), which identifies the primary functions in a port system in terms of property, regulation, and operations. The matrix then requires policy makers to decide whether each of these functions in turn is to be managed by the state, the market, or a suitable partnership model. The variable proposed here develops a five-part measure of the key market functions from this matrix. Not only will this variable look at the policy choices for politicians but also the variable is structured around key issues for market participants.

Competition between and within ports is a consistent theme in the literature (Baird 2004). Terminal operators are interested in equal or better access to the market place and a level playing field for their business. Policy makers, on the other hand, will be concerned that allowing private business to provide terminal management services without competition will result in a private monopoly. Either way the existence of competing terminals is a valid indicator of market openness. Terminal operators are interested in protecting their interests, which may include exercising control over the local operating entity. This entity may own, lease or concession the terminal from a port authority. In a number of countries there are statutory limits to foreign ownership and domestic partners are often required. Equally domestic politicians need to ensure that the national interest is protected. Measuring the extent of non-state ownership, direct and indirect, is a useful indicator of market control. Policy makers often retain control over both port authority and terminal operator prices. Thus, the market is not free to find price equilibrium. Measuring the regulation of price by the state, or alternatively by the market, is an indicator of how free the market is to function. Private investors in terminal operations will normally argue that the state should provide the necessary capital to invest in port infrastructure often based on public goods arguments. Measuring the extent to which the market must invest, without any express or implied guarantee of state aid for losses incurred, is an indicator of risk transfer to the market. Assuming the market owns a majority stake in the terminal management business, is free to set prices and be competitive, there is still the option for policy makers to retain investment control over the development of the market. In other words the state may insist on approving new developments through mechanisms over and above normal planning controls. This leaves the market uncertain as to how it can grow and prosper, while leaving the state with the means to manage political opposition to development projects. The composite measure charts how each state has set policy over market

functions of competition, property rights, and economic regulation. The scale is a valid measure of advancing market power or alternatively the continuing power of the state.

The chapter will proceed with a review of the historical context of international container ports to highlight their political relevance, and their economic significance. This is complemented by a description of maritime logistics and related market dynamics. A review of privatisation typologies in the literature, and their efficacy for comparative studies, will follow. The subsequent sections will discuss the detailed issues and measurement structure for each of the policy elements, that is, competition, investment, price regulation, equity regimes, and state veto powers. The chapter will conclude with an analysis of the dependent variable data.

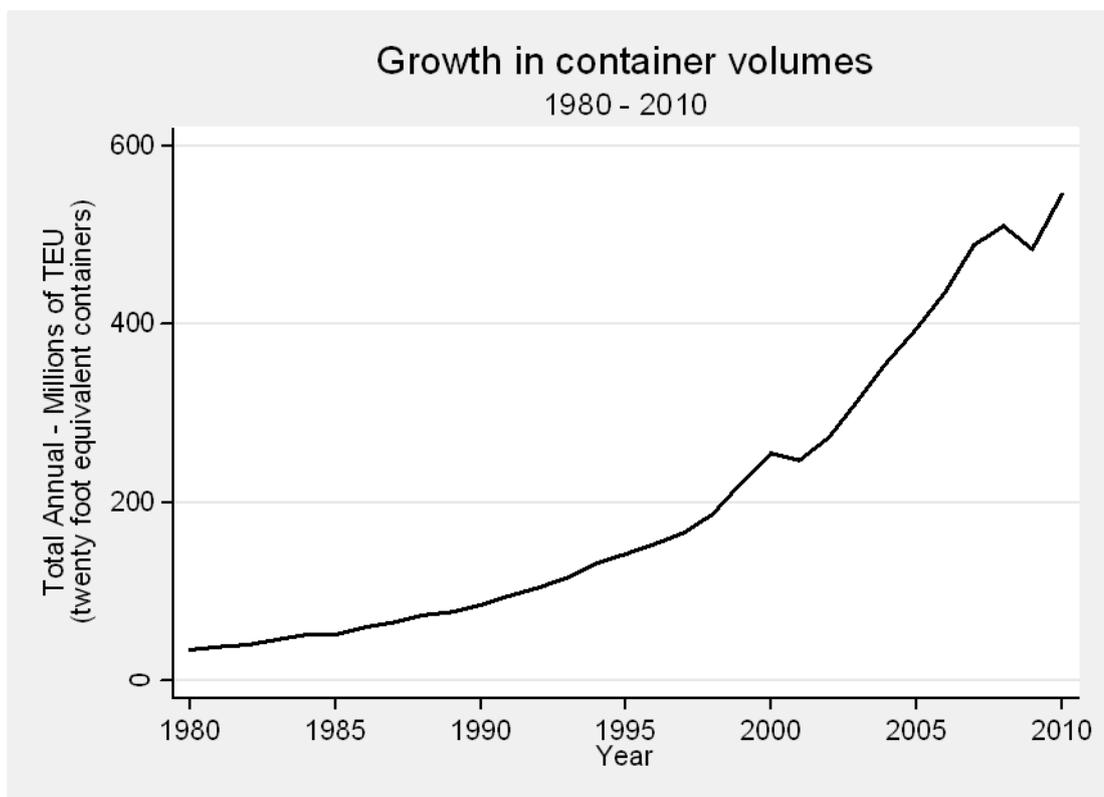
#### **4.1. Historical and Comparative Context**

The evolution of the port sector is of interest geo-politically, in terms of technological innovation, and in a context of increasing globalisation of production. In economic terms the maritime sector provided some of the earliest signs of market based capitalism (Stopford 2009). Authorities, be they tribal, city-state, provincial or more recently the Nation-State needed to ensure that their access to the sea was secure. In their earliest forms therefore political calculations required the appropriate authority to provide the necessary facilities.

UNCTAD define the history of port development in generational terms and argue that the initial generation was characterised by one-dimensional state-led port authorities lasting up to the mid twentieth century (UNCTAD, 1992). The second generation was characterised by extended roles in providing lands for ancillary activities around ports. It is in the third generation that the impact of the most significant technological shift is seen with the adoption of the standard size container as a mode of transport for general cargo. This facilitated further growth, deeper integration of transport networks, and globalisation of production. Figure 4.1 charts the growth in volumes moved through container ports confirming that globalised production has driven, or has been facilitated by, massive volume growth. Ports developed a more significant commercial identity with customers, that is, port users, as their business focus. The third generation can be regarded as a logistics distribution centre. In recent years a fourth generation is represented as total transport solution providers; and “act as information distribution centres” (Marlow and Casaca, 2003:190).

Container vessels required significant investment in mechanised port handling equipment in order to meet the demands of the market. Such cargo now represents more than half of all cargo moved by sea by value<sup>10</sup>, just over five decades since the introduction of the container. In developed countries the shift has seen some countries move as much as eighty per cent of their cargo in and out by containers and developing countries represent sixty eight per cent of all containers traded in 2008 (UNCTAD 2010: 94). Also fewer, but higher skilled, dock workers were required to operate the container cranes at the dockside and the handling equipment in the container yards. Political focus now shifted to market demands for significant capital investments and greater operating efficiency.

*Figure 4.1: Trade Growth*



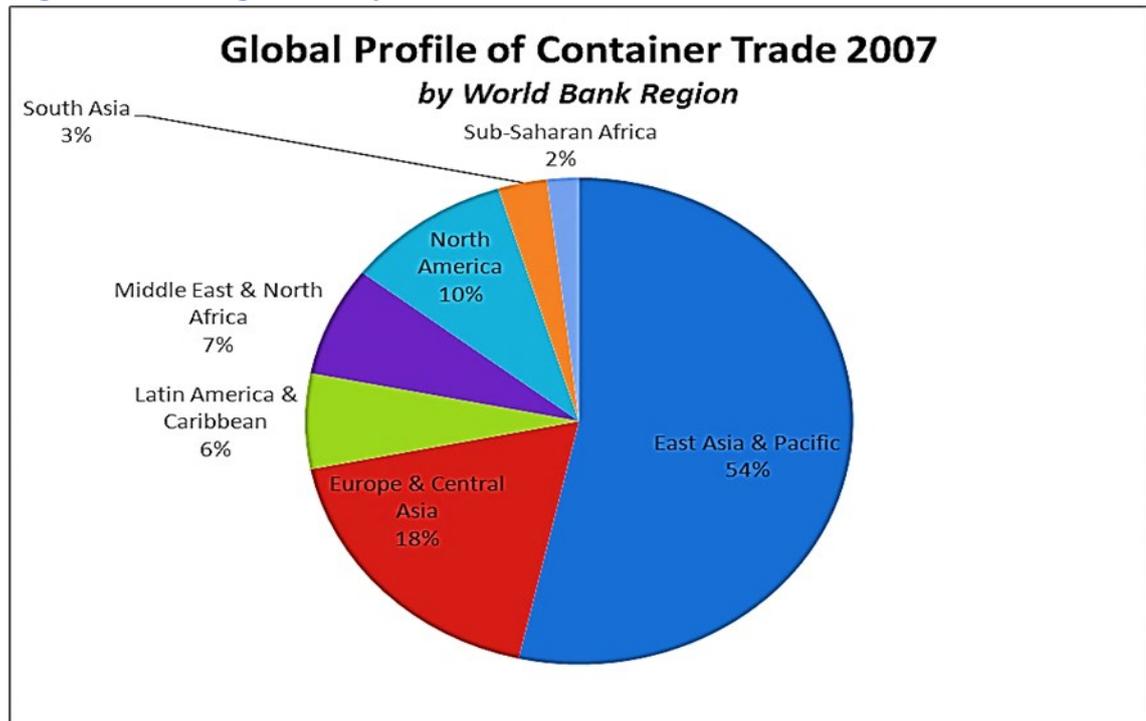
Data is drawn from database of Containerisation International [www.ci-online.co.uk](http://www.ci-online.co.uk)

Trade in containers is a useful prism through which to consider the impact of globalisation during the last two decades. Containers are to be found in all parts of the globe whereas other cargo modes, such as major liquid bulk ports, are specific to countries rich in the relevant natural resources or refining capacity. The volume of cargo

<sup>10</sup> Taken from World Shipping Council website homepage April 11<sup>th</sup> 2011: <http://www.worldshipping.org/>

traded in a globalised world continued to grow as shipping connectivity, free trade regimes, technology and communications progressed. Figure 4.1 illustrates the growth in container volumes in the major ports of the world during the age characterised as driven by neoliberal economic ideas, that is, from 1980 to 2010. Figure 4.2 shows the regional distribution of those same container volumes. The lion's share of container movements is through Asian ports.

*Figure 4.2: Regional Profile*



Driven by this trade growth, technological change and market pressures to reform, privatisation of ports and national shipping lines became a significant factor (Trujillo and Nombela, 2000:125). In political terms, the calculations that drive the policy agenda now shifted towards responding to the market directly.

The shipping industry itself also exerted pressure through their economic scale, their home governments, and direct participation in the port market. In 2007 four of these Multi-National Corporations controlled about one third of the container terminal market by volume, adjusted to reflect their equity stakes in those terminals; and taking the gross volumes from the terminals the share of the market rises to just under half (UNCTAD 2010).

**Table 4.1: The Largest Container Ports**

Top 20 container ports and their throughput for 2006 to 2010						
Port Name	Country	2006 M/teu	2007 M/teu	2008 M/teu	2009 M/teu	2010 M/teu
<b>Singapore</b>	Singapore	24.8	28.0	30.0	25.9	28.4
<b>Shanghai</b>	China	21.7	26.2	28.0	25.0	29.1
<b>Hong Kong</b>	China	23.5	24.0	24.2	21.0	23.7
<b>Shenzhen</b>	China	18.5	21.1	21.4	18.3	22.5
<b>Busan</b>	Korea	12.0	13.3	13.4	12.0	14.2
<b>Dubai</b>	UAE	8.9	10.7	11.8	11.1	11.6
<b>Ningbo</b>	China	7.1	9.4	11.2	10.5	13.1
<b>Guangzhou</b>	China	6.6	9.2	11.0	11.2	12.6
<b>Rotterdam</b>	Netherlands	9.7	10.8	10.8	9.7	11.1
<b>Qingdao</b>	China	7.7	9.5	10.3	10.3	12.0
<b>Hamburg</b>	Germany	8.9	9.9	9.7	7.0	7.9
<b>Kaohsiung</b>	Taiwan	9.8	10.3	9.7	8.6	9.2
<b>Antwerp</b>	Belgium	7.0	8.2	8.7	7.3	8.5
<b>Tianjin</b>	China	6.0	7.1	8.5	8.7	10.1
<b>Port Klang</b>	Malaysia	6.3	7.1	8.0	7.3	8.9
<b>Los Angeles</b>	USA	8.5	8.4	7.9	6.7	7.8
<b>Long Beach</b>	USA	7.3	7.3	6.5	5.1	6.3
<b>Tanjung Pelepas</b>	Malaysia	4.8	5.5	5.6	6.0	6.5
<b>Bremen/Bremerhaven</b>	Germany	4.4	4.9	5.5	<i>Gone from Top20</i>	
<b>New York/New Jersey</b>	USA	5.1	5.3	5.3		

Adapted from the UNCTAD annual Review of Maritime Transport 2010-2012

In the EU market concentration is higher with six companies in control of seventy per cent of the market (Pallis, 2007). Table 4.1 shows the top twenty container ports for the period 2006 to 2010. The presence of Asian ports in eight of the top ten positions, and two new Asian ports of Xiamen and Dalian replacing Bremen and New York, again illustrates the shift of market power to the East. Equally, it illustrates how rapidly China has integrated into the world economy with six of the top ten container ports. While the data profiles reflect activity during the period under review it is noteworthy that the shift from West to East continues with Asian ports replacing European and US ports in the top twenty for 2012 (UNCTAD, 2013:91). The market for operating, that is port service provision, at these terminals as stevedores has also changed dramatically with four major suppliers dominating the market for container handling at ports. Table 4.2 shows the top twenty operators in 2009. Hutchinson Port Holdings is a subsidiary of a Hong Kong based conglomerate with major interests in the telecommunications

industry. The port subsidiary (HPH) was oversubscribed in a public listing of its shares on the Singapore stock exchange (Port Strategy, 2011). The port of Singapore, a subsidiary of the state owned investment vehicle Tamasek, has expanded its stevedoring operations internationally, as did the port of Dubai through DP World. Both these providers are state owned and controlled, while functioning in corporatized operating models. Maersk is a subsidiary of the shipping business of AP Moeller and they have taken full and partial roles in container terminals where their ships make calls.

**Table 4.2: The leading International Terminal Operators (2009)**

	<b>Name</b>	<b>Economy</b>	<b>TEU millions</b>	<b>Capacity TEU millions</b>
1	HPH	China, Hong Kong SAR	64.2	93.9
2	APMT	Netherlands	56.9	105.4
3	PSA	Singapore	55.3	84.4
4	DPW	United Arab Emirates	45.2	63.1
5	Cosco	China	32.5	68.1
6	MSC	Switzerland	16.4	23.6
7	Eurogate	Germany	11.7	21.1
8	Evergreen	Taiwan	8.6	16.6
9	SSA Marine	United States	7.7	18.0
10	CMA-CGM	France	7.0	14.5
11	Hanjin	Republic of Korea	6.0	15.8
12	NYK Line	Japan	5.2	19.0
13	HHLA	Germany	5.0	9.2
14	Dragados	Spain	4.9	9.1
15	APL	Singapore	4.6	7.7
16	K Line	Japan	4.3	8.7
17	OOCL	China, Hong Kong SAR	4.2	5.5
18	Yang Ming	Taiwan	4.1	7.9
19	ICTSI	Philippines	3.6	7.4
20	MOL	Japan	2.7	5.7
	Total		350	604
	World		524	751

Source: Abstracted from Table 6.14 in the Review of Maritime Transport 2011.

Demands on nation-states to invest in ports accelerated as ship size and their cargo volumes grew. Demands also increased for labour reform, the elimination of corruption, price reductions, and operational efficiency. Governments faced pressures from international governmental organisations through trade agreements and aid conditionality. The impact of globalised production was not just in increased volumes but also in greater demands for efficiency and cost effectiveness. Given the normative

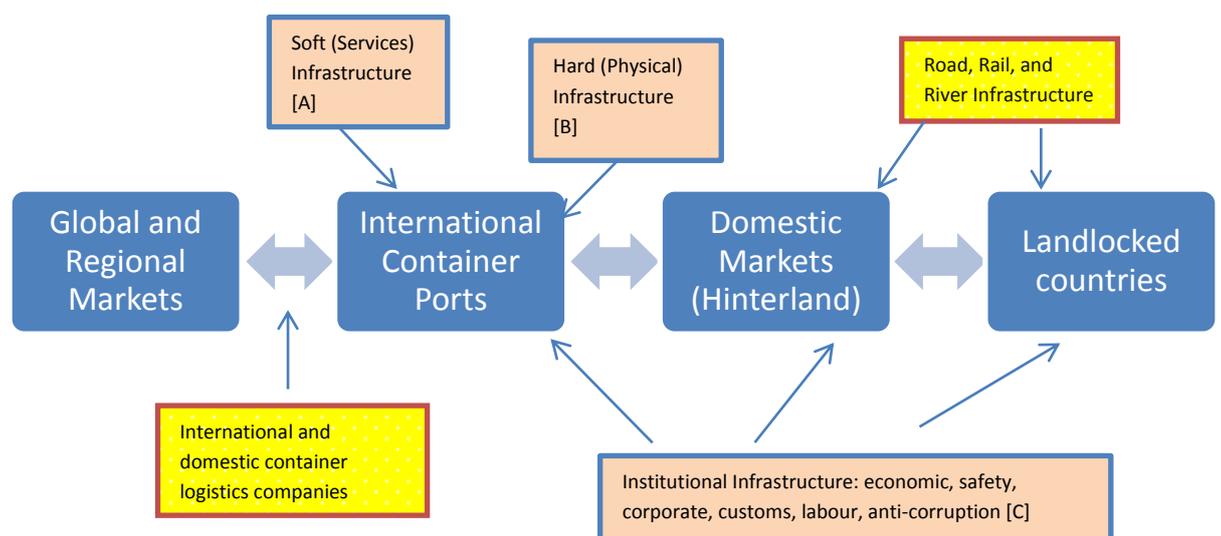
economic shift in the final quarter of the twentieth century towards deregulation, privatisation of ports was inevitable. However, ports are a complex mix of services. Framing a deregulation narrative requires a careful definition of the services to measure. The objective here is to focus on those services that generate the majority of port revenues.

#### 4.1.1. International Container Ports

This section will describe how the markets for port services function as a coherent chain of logistical events, that combined represent the port product. It is intended to show the ideational shift from public to private of key port activities and test public goods arguments across the various port services.

Figure 4.3 describes the market for international container ports in terms of soft, hard and institutional infrastructures. This schematic forms the basis of a process flow description to provide the reader with an appreciation of the activities, investments, and institutional arrangements associated with the arrival of a container vessel in port. This in turn will inform the discussion on the unit of analysis selected to represent national policy outcomes. It will also provide the material to frame the ideational change in the public goods narrative on ports.

*Figure 4.3: Container Ports and Logistics.*



Adapted from figure 2.1 in ADB 2010, p33.

Soft infrastructure can be considered in two parts. First, each port needs to provide an array of services to vessels and cargo. When a ship arrives it will be met by a pilot

licensed to advise the shipmaster and sail the vessel into or from a berth safely. The pilot will be aided by navigation lights and vessel traffic management systems, all intended to regulate safe passage of vessels. If the vessel is large enough or weather conditions dictate then the services of a tug will be required. They will operate under the direction of the pilot who will assist with the safe passage of the vessel. On arrival at a berth the vessel will be tied up securely by operatives often, but not always, known as lines men<sup>11</sup>. From this point the stevedore will provide equipment such as quayside cranes and storage yard equipment in a container terminal to load and unload the vessel. On the labour side the requirement is for dockworkers to function as equipment operators rather than traditional manual handling of cargo. Cargo agents will arrange for the cargo to be cleared through the customs authorities and for onward transit if it is an import. This chain of events requires a range of actors and equipment working in a coordinated process. Second, soft infrastructure also refers to the regulatory environment. The vessel may be inspected by various state and port authorities for compliance with international security, safety and cargo regulations. The licensing of pilots, the issue of operating concessions for tug operators, the concessions or leases for terminals, and the economic regulation of the market form the institutional frame for the port. National regulation of the labour market, the customs authorities, inspection regulations such as port state control and policing form the complimentary regulatory framework.

Hard infrastructure can be divided into two parts. First the basic land and marine access assets are considered infrastructure. These can exist naturally, however in the main they are created over long periods of time in ports. For example, a channel of sufficient draft to accommodate the largest vessels trading with that port is developed through dredging. The land on which cargo will be loaded or unloaded from the ship can be created through reclamation of the sea and the construction of suitable retaining walls and/or breakwaters. Superstructure is regarded as the provision of utility services to the cargo terminal such as electricity and paving, as well as the provision of cargo handling equipment.

The industry itself is an interesting mix of actors both national and international. Three main groups function in the port service market. First, international shipping companies dominate the market in the sense that they ultimately decide which ports they will include on their schedules. A strategic objective for ports is to tie in these shipping lines

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<sup>11</sup> They can also be known as berthing or boatmen depending on local custom and practice.

into medium to long-term contracts thus providing some certainty to the main source of revenue in a port. Second, stevedores are the primary service provider in the port container environment. They may be related in some way to shipping lines, ports, or independent. They may partner with the state in joint venture or public private partnerships. They are also the ultimate employer of dock labour and in the container handling market the scale of change, mainly through large-scale redundancies, has transformed the labour market. This led to significant resistance that in some countries remains a critical political factor (Turnbull, 2000). Third, the port authority generally represents the state and provides services that are seen as public goods, at least in domestic political terms. It can also act on behalf of the state to regulate the market, and safety responsibilities, to ensure that they are performed directly or that the private sector is required to do so. In infrastructure liberalisation it is this separation of the market regulator role from market operations that often shapes policy. Thus, the role of the state changes philosophically as well as in practical responsibilities for financial supports (subsidies/aid).

The simplest way to test the shift in public goods arguments is to disaggregate the port system to its key process elements and related infrastructure. Take for example the case of marine access facilities at a port. In the first instance a ship needs to enter the port through a channel dredged and maintained to a suitable depth. This facility will be used by all vessels and its use does not represent a competitive advantage. Vessels cannot be blocked from entering the port except on political, safety, and environmental considerations. Similar arguments apply to navigational aids within the port along with any traffic management system typical of modern ports. As these are provided to the market at no competitive advantage to any single user of that port, and as they are available even if there is no trade, they have characteristics consistent with the economic definition of public goods. In the Federal Budget 2011 in the USA the funds allocated to port development is limited however the political narrative at state and federal level argues for the President to intervene in the market and provide the necessary public goods<sup>12</sup>. It is worth observing here that much of the political interest is driven by actor perceptions on the East coast who either fear or wish to take competitive advantage from the soon to be enhanced Panama Canal. Expansion by Cuba is driven by

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<sup>12</sup> The source of these examples are various articles in Port Strategy journal during first quarter in 2011 reporting the political arguments of east coast southern states for direct federal investment in port dredging projects. Briefly, in March 2011 a US Senator from Georgia tried to block appointments in the Senate unless funding was provided to his home state.

the same narrative of market change as a result of the improvements to the Panama Canal (UNCTAD, 2010:101; Port Strategy, 2013). In all these cases the political expectation is that funding such assets is the responsibility of the public sector.

The argument is even starker when considering the most basic infrastructure that defines the location as a port at all. For example, the provision of breakwaters at the entrance to a harbour provides the basic protection for port operations. The costs of these are likely to be relatively high and not typically provided by the private sector. They are perhaps, along with lighthouses, the clearest examples of public goods in the maritime sector. For example, investments in the port of Antwerp to upgrade marine access with breakwaters and dredging, was deemed not to be state aid as the assets were available to all port users and did not provide any user with a competitive advantage (Baird 2004,387). This argument may well hold in terms of competition between container terminals in the same port. However, in a regional context, where hinterland infrastructure is good, such investments may distort competition between ports. Consider for example an investment in marine access assets in Dublin, providing no competitive advantage to the container operators in the port, but arguably providing them with a competitive advantage over container terminals in Waterford and Cork. Such an argument implicitly assumes that the cost of moving a container to and from a factory, say in the West of Ireland, can be transported with equal cost effectiveness from any of these terminals. Extending this argument further the competition may be in another State, for example in Belfast. This interaction between competition, public goods, and state investment is political and are differentiating factors cross nationally.

International institutions will play a significant role in the future in regulating public investments in ports, through loan/aid conditionality, trade facilitation agreements, or regional economic agreements. For example, the European Union regulates such investments in the context of competition policy and rules regarding State Aid. There are four conditions to test for state aid under the EU Treaties. First, show that the infrastructure was built with funds from the state. This may be in direct aid but also may be indirect such as taxation incentives or discounted lending. Second, show that the market will be or is distorted by such an investment. Third, show that the investment is selective in that it is not equally available to all. Last, show that the investment distorts trade between member states (Baird 2004, 383).

Ultimately, the classification of assets as public goods is a political one and dependent on the nature and membership of domestic political institutions. Baird (2004, 389) argues that the “notion of major seaports in Europe providing some form of public good appears to have been abused, largely for the sake of local and/or national political expediency”. At times the public goods argument will focus on adding value to a broader social and political agenda. For example, generating or maintenance of employment opportunities may be set as a strategic goal for a port authority. In many environments this is a key political issue given votes required from the wider port community concentrated typically in one constituency; and the radical shift in employment profiles. Providing subsidised land or other facilities to a port user, to further a broader national policy objective, may be required of the port authority. This value added argument may be attractive politically; however, in the context of the international market for port services’, passing on the related costs in the price to port users is not consistent with a market-led strategy.

The case for public sector investment on the basis of an economic public goods argument weakens as the vessel and its cargo move upstream. The next stage, where much of the revenue is earned, is the cargo handling process. In the case of the container trade competition in this sector can be intense intra-port as well as inter port, serving the same hinterland. Therefore funding such assets is a direct intervention in the market with enormous potential to distort competition. In Europe the municipal or state authority will often provide non-recoverable aid to the port and the authority will seek to recoup operating costs only (Trujillo and Nombela, 2000:156). Thus variable port financing is a consideration when seeking to compare ports as units. Given the mix of arrangements within ports the argument again is that one should focus on the more significant activities, infrastructure and superstructure.

In a globalised economy the balance of power has shifted towards international shipping companies seeking economies in their own extremely competitive transport market (Van De Voorde, 2005). Modern vessels seek ready access to berths, efficient handling of cargo and swift turnaround times. This requires ports and their political stakeholders to respond with the necessary reforms and appropriate investments. It also requires policy makers to understand the different dimensions of a port system and allow for different approaches depending on market characteristics. This further implies, for those researchers interested in using ports as a comparable unit of analysis for economic performance measurement or proxies for state policy, a need to segment the market

appropriately. Table 4.3 profiles the range of dimensions discussed in this chapter. To assess the policy outcomes for a wide variety of countries and ports using the complete range of dimensions is not practical. What is also relevant is that the critical components are cargo handling and the related marine services to bring the vessel in and out. They represent the majority of the cost of using a port; and if they fail to operate efficiently have the largest impact on demurrage<sup>13</sup> costs. There is sufficient difference in the economics for cargo mode to merit considering them as separate or sub port components.

**Table 4.3: Port Industry Dimensions**

Dimension	Description		
Policy	Competition; Equity; Price; Investment; Planning/Political veto		Private; public; mixed
Actors	State; Port Authority (PA); Stevedores/Terminal operators; Port users/Shipping; Service providers; Labour		
PA Functions	Regulator; Landlord; Operator		
Cargo mode	Containers (Ro/Ro, Lo/Lo); Bulks (Dry, Liquid, Break)		
Marine Services	Pilots; Tugs; Vessel Traffic System; Dredging; Linesmen; Chandlers; Bunkering; Repairs; Crew Change; Ship inspections		
Landside Services	Cargo handling; Passenger handling; Customs; Cargo and Vessel Agency; Property; Electricity		
Port Type	Hub; Feeder; Coastal	Marine; Dry; River	Tidal; Non-tidal

The unit of analysis best suited to a comparative privatisation study is to conceptualise the load on/load off operations as a separate port made up of one or more container terminals for cargo handling. It is also useful to narrow and clearly define the range of service to include as part of the unit to cargo handling and the directly related marine assets. These vessel services include provision of major infrastructure to enable the

<sup>13</sup> Demurrage is the term used to represent the time costs associated with delays in ports. They are mainly associated with the vessel costs rather than additional port authority or stevedore costs.

vessel to navigate to and from terminals safely and efficiently; the landside infrastructure including the berth and related container yard; and the superstructure including making the terminal fit for purpose and the equipment required for modern container operations to and from a vessel.

There is a considerable body of research that examines the trend towards the private operation of container terminals<sup>14</sup>. Much of this work is economic focussing on efficiency and effectiveness based on selected inputs, including aspects of a port institutional framework. There is little evidence of research to explain the political determinants of port institutional frameworks except as part of privatisation studies. In such research privatisation is generally characterised as a sale to the private sector and outcomes tend to be measured at a macro-economic level. For example the shrinking size of the public sector is offered as evidence of privatisation (Doyle, 2010; Lee and Strang, 2006). However as ports represent a location in which multiple economic activities are undertaken by a variety of actors subject to a range of rules and practices (institutions), such output measures are unlikely to describe the variety of policy solutions observable in the international political economy.

#### **4.2. Privatisation typologies**

There are a number of port typologies available in the literature that can be used to group the activities and functions of a port for research and policy purposes (Bichou and Gray 2005). The most common is credited to Alfred Baird (1995) and is represented in Table 4.4 as a port function matrix. It takes three categories of port functions and develops a typology based on whether the provider in a particular port is private, public, or a mix of both. This typology is a very useful device for describing ‘ideal types’ but is very difficult to apply in practical circumstances.

Maritime economic literature suggests that privatisation trends are towards a ‘landlord’ model of a public regulator and landlord, with operations managed by the private sector (Trujillo and Nombela, 2000: 127). This is where concessions are offered to operators to finance and manage dedicated container terminals. It usually requires a medium term life to the concession to provide a reasonable basis for adequate returns on investment. A number of subsequent studies have struggled to position ports into the matrix cells as

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<sup>14</sup> For an overview of this research see Brooks and Pallis (2012)

described above primarily because the reality is that port governance tends to be a mix of policy choices (Brooks and Pallis, 2012).

**Table 4.4: Function Matrix**

<b>Port Models</b>	<b>Port Functions</b>		
	<i>Regulator</i>	<i>Landlord</i>	<i>Operator/ Utility</i>
<b>Public</b>	public	public	Public
<b>Public/private</b>	public	public	Private
<b>Private/public</b>	public	private	Private
<b>Private</b>	private	private	Private

**Source: Baird (1995)**

The World Bank produced a Port Reform Toolkit intended as a guide for policy makers' intent on institutional change (WBPRTK, 2003). This responsibility matrix, Table 4.5, considers the distribution of activities and services and categorises ports accordingly. With each of these ideal type models risk is transferred from the public sector to the private market place. From a policy makers perspective there remains the need to balance private sector wealth creation motives with public interest and social objectives. Logically therefore increased private sector involvement will require some consideration as to how the public interest can be protected. Regulation of security and safety generally remains with the state along with delivery of those services. It is the least likely group of activities to be privatised.

**Table 4.5: Basic Port Organisation Models**

<b>Type</b>	<b>Infrastructure</b>	<b>Superstructure</b>	<b>Port Labour</b>	<b>Other functions</b>
<b>Public service port</b>	public	public	public	majority public
<b>Tool port</b>	public	public	private	public/private
<b>Landlord port</b>	public	private	private	public/private
<b>Private service port</b>	private	private	private	majority private

**Source: World Bank Port Reform Toolkit, module 2.**

In the case of economic regulation the case is not so clear-cut. For example, reform instruments need to consider how the market will perform when a public monopoly is deregulated and/or privatised. There will be a risk of high pricing, rent seeking behaviour, given the captive nature of trade and the inelasticity of demand, relative to tariffs, between ports (Trujillo and Nombela, 2000:156). Within ports there is the risk of

a private monopoly if there is insufficient competition. Where a container terminal is managed by a subsidiary of a shipping line there is a risk of preferential treatment in servicing vessels from related companies. Therefore the market may need more than the ‘invisible hand’ of demand and supply forcing price equilibrium to ensure maximum utility for the national economy. In module one of the World Bank Port Reform Toolkit this balance of risk and regulation is discussed and it recommends that reform programmes must focus on the need for effective market regulation (WBPRTK, 2003; Module1).

Current literature tends to expand on the above typologies in order to test the extent to which a port authority is decentralised. Brooks and Cullinane (2006b, 415) argue that such a devolution scale would include central government ownership and control; central government ownership with local government control and operation; government (local or central) owned but operated by a corporatized entity; government owned but operated by the private sector or in partnership with the private sector through concessions and/or leases; fully privatised including ownership. This typology is subsequently applied to an informative study of devolution practices (Brooks and Pallis, 2012). It is certainly worth examining in future work how the variable proposed below can be blended with this devolution typology to give further nuance to comparative path dependent policy studies. An EU funded research project has also made a significant contribution to the typology debate, with an extension of the functional categories to include higher-level abstractions such as facilitator and community integration (Verhoevan, 2010a, b). This certainly is useful in considering decentralisation and forms of administration; however it does not focus on the line between market and state control. They are useful in a broad categorisation of devolution but they do not consider key market control issues such as price regulation or project vetoes. The proposed dependent variable is not a replacement for existing typologies, which serve a very useful purpose in categorising ports. The new variable is intended to complement the earlier work and provide an objective measure of policy outcomes for comparative purposes.

### **4.3. A New Policy Outcome Variable**

The dependent variable developed in this chapter is a continuous measure of the scale of liberalisation across direct market dimensions relevant to a major container port. There are a set of complementary institutions that are also relevant to this policy context,

including dock labour regimes. The World Bank Toolkit includes a section on port labour institutional reform as well as human resource implications (WBPRTK, 2003). This is a critical component of the stevedoring market place. As the proposed independent variables include labour representation it is excluded from the proposed dependent variable. Rules governing the markets response to liberalisation are also important such as rules that govern foreign ownership, capital controls and national security structures. Each of these is posited as explanatory variables in the models tested in Chapter 5; therefore, they are not incorporated in any form within the dependent variable construction. This is intended to measure actual outcomes from a political coordination process without implied interactions with explanatory and intervening variables. This suggests complex policy frames and the objective is to “examine linkages between policies” (Kay, 2005:567). This includes linkages with institutions nominally external to the port operation.

The term privatisation in ports is itself a contested term. Taking all the functions of a port, all the assets and equipment and transferring them to the ownership and control of the private sector is rare in this industry. As Mary Brooks and Kevin Cullinane note, “full privatisation of public ports seems unpalatable to most governments, no matter what the tenets of new public management” (2007:414). The only real examples are to be found in the United Kingdom where the process was underwritten by an ideological project. It may be some services are privatised while in other cases the operation of the service will be privatised for a period of time. In the literature the process can be labelled as liberalisation, deregulation or privatisation. It is in the variety of services and the mix of policy choices that one can develop a rising scale of liberalisation in the port sector. Mary R. Brooks remarked that “there is very little published research on port devolution, and most that has been written only examines port privatisation This is quite surprising given the worldwide trend towards new public management and the subsequent devolution of government-owned entities using a wide variety of devolution models, only one of which is privatisation” (2005:114).

Baltazar and Brooks (2001:8) argue that the division of responsibilities for port functions should reflect the economic, political, historical and cultural context of the country; which they refer to as a matching framework. This historical turn for policy formation echoes with the analytical approach of political institutionalism. The normative premise is that policy should be contingent on pre-existing domestic policy pathways. This is a matrix of functions and is set out in Table 4.6. It effectively forms a

policy template to allocate responsibilities into public, private or public/private partnership arrangements.

A business maxim requires functions to be allocated to those who can best manage the risks associated with the activity, in this case political and economic. While this matrix is helpful in framing regulations and policy papers this thesis sets out to assess the strategic political choices required, and the factors, which influence those decisions. There are five dimensions to the market for port services, which combined measure the level of private sector control. This innovative dependent variable represents a broader assessment of private interests in the market place. The components of the variable are competition, ownership/control, price setting freedom, state aid, and state veto power on development. Assessing actual market practice provides an annual picture of how institutional arrangements in each state have impacted market competition, property profiles and economic regulation.

**Table 4.6: Port Devolution Matrix**

Governance	Regulator Functions	Port Functions	
		Landlord	Operator
<b>Public</b>	<ul style="list-style-type: none"> <li>• Licensing/Permitting</li> <li>• Vessel traffic safety</li> <li>• Customs and immigration</li> <li>• Port monitoring</li> <li>• Emergency Services</li> <li>• Public interest protection</li> <li>• Setting port policy</li> <li>• Setting environmental policy</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance marine assets</li> <li>• Maintenance port access</li> <li>• Marketing of port</li> <li>• Development plans</li> <li>• Port security</li> <li>• Land creation, acquisition and disposal</li> </ul>	<ul style="list-style-type: none"> <li>• Cargo handling</li> <li>• Passenger handling</li> <li>• Pilotage</li> <li>• Towage</li> <li>• Line handling</li> <li>• Facilities security</li> <li>• Facilities maintenance</li> <li>• Marketing of services</li> <li>• Waste disposal</li> <li>• Landside and berth capital investment</li> </ul>
<b>Mixed (Public/Private)</b>			
<b>Private</b>			

**Source:** Adapted from Table 1 in Baltazar and Brooks (2001:8)

Not all functions in the table will be required of all ports. It is important to distinguish between the lists of functions in Table 4.6 and allocate responsibility to each of the actors recognised as the regulator, landlord and operator; as each at times may undertake the role of the other depending on local practice. The matrix serves as a means to assess responsibility allocation and any conflicts of interest that may arise.

The primary political role can perhaps be associated with the protection of the public interest.

The structure of the dependent variable draws on the understanding of the port service market and follows the logic of perfect market theory. In other words the policy outcome is a function of the competition, equity, price, investment and project approval dimensions in the market. By measuring the extent to which the state has passed control to private actors it sums to a comprehensive measure of market liberalisation. What follows is the detailed construction of the dependent variable.

### 4.3.1. Competition

Naturally, terminal operators are not necessarily interested in having competitors; however, they are interested in equal access to the market place and a level playing field for their business. Policy makers will be concerned that allowing private business to provide terminal management services without competition will result in a private monopoly. Either way the existence of competing terminals is a valid indicator of market openness.

**Table 4.7: Contestable Markets**

<b>Volumes</b>	<b>Regulation</b>
<b>Less than 30,000 TEU</b>	Single terminal with price controls
<b>Greater than 30,000 TEU but less than 100,000 TEU</b>	Market price based on competition within single terminal or between dedicated terminals
<b>Greater than 100,000 TEU but less than 300,000 TEU</b>	Market price with competition between dedicated terminals
<b>Greater than 300,000 TEU</b>	Market price with intra and inter-port competition

*Adapted from Kent and Hochstein 1998*

When political discussions consider port privatisation the focus will generally fall on the container business. Within ports these vessels and their cargo, that is containers, are serviced in specialised terminals when the volumes are sufficient. One study of container terminals, see table 4.7, argued that when volumes exceed 100,000 TEU (twenty foot equivalent units) there is a market for intra port competition; and when the volume exceeds 300,000 TEU in a region there is a market for inter-port competition

(Kent and Hochstein 1998). A more recent study applied economic concepts of Minimum Efficient Scale when considering competitive concession structures for container ports (Kaselimi et al, 2012). The smallest port in these data is 2.2m TEU, which is considerably higher than the range of values in that study.

This is an important point and supports the argument that only ports with a significant contestable market should be selected in this study to ensure that a low competition score is a function of policy rather than the lack of an effective market for container handling.

In the container business the most significant decision for policy makers is how to structure the market for stevedoring services. Such services for cargo operations, in ports with significant volumes as per Table 4.1, are generally organised into discrete terminals. In turn these are managed by terminal operators. They can be a port authority, an independent operator, a subsidiary of a shipping company, a business unit of an international stevedore, or a joint arrangement with any of the above. The public goods argument is relevant where the volume of containers through the port, is not sufficient to sustain a contestable market. The sample taken for this research identifies ports with significant volumes above 300,000 TEU levels, where it can be assumed that there is the potential for an internal competitive market among terminal operators. In the data collected the smallest port in 2007 handled an annual volume of 2.2m TEU and the average annual port volume was 6.9m TEU. Intra port competition is assumed to exist where there are two or more container terminals, unless the same operator controls the terminals. It is assumed therefore that actual public policy environments allow competition among private stevedores.

Where there are two or more distinct private operators then this component will be valued as 1, and 0 if not. Where the State, perhaps through a port authority, is the only competitor to a single private terminal then the component is valued at 0.5. This assumes that there is a competitive market between the public and private terminals however, the transfer to market coordination is partial. In one scenario the public terminal is acting as a control on a private monopoly. Nonetheless market coordination is split.

Many stevedoring operations are subsidiaries of or are related companies to shipping lines. If a shipping line has no choice but to use a terminal related to its competitor, then

there may be a distortion to the market. A public good argument may apply, however, this competitive risk can be managed through market regulation, rather than requiring the service to remain in direct public control. A regulator may insist on at least one terminal remaining independent ('common user')<sup>15</sup>, which means that this independent stevedore has no direct connections with any shipping line. Inter-port competition is considered further in the context of state aid, where such public investments may be seen as distortions to inter-port competition, including competition between ports across national boundaries.

Table 4.8 illustrates the spread of values for this factor of the market based on the collected data of the largest globalised container ports across the 26 countries in the selection. The categorisation reflects the assessed competition metric for each port. While there is a mixed result for more advanced regions, there is a striking lack of competition in less developed locations. This may be as a result of under development but given that the ports are 'high achievers' in the container market it may be a result of political and economic strategies, examined later in terms of attitudes to intervention by the state. For example, taking the observations for all years and countries in the dataset forty-seven per cent in total are ports with only publically owned terminals.

**Table 4.8: Relative Distribution of Competition Values by Region**

World Bank Region	Values are per cent of observations			
	Public (0)	Mixed (0.5)	Private (1)	Total
Sub-Saharan Africa	100	0	0	100
Middle East & North Africa	92	6	2	100
South Asia	59	33	7	100
Latin America & Caribbean	48	6	45	100
Europe & Central Asia	39	14	47	100
East Asia & Pacific	38	11	52	100
North America	0	0	100	100
<b>Global Spread</b>	<b>47</b>	<b>11</b>	<b>42</b>	<b>100</b>

Note 1: Original data based on actual policy profile of selected container ports described in Chapter 3

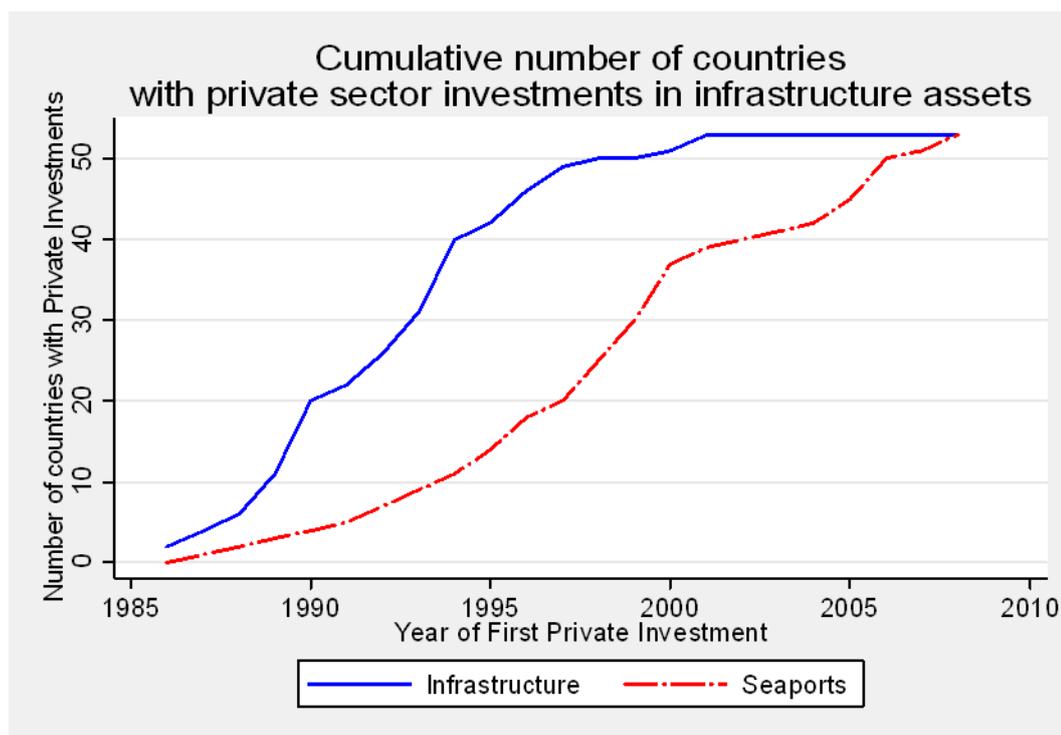
This implies no internal port competition. Forty two per cent are operated by private operators, while eleven per cent represents ports where the private and public sector compete in the provision of container handling services. All regions show a mixed

<sup>15</sup> The term 'common user' implies that all users have equivalent access to services at a terminal

market setting with the exception of North America and Sub-Saharan Africa, the former all private and the latter all public. There is only one port in the latter category, that is, South Africa. This is examined in detail in Chapter 6 as a deviant case.

### 4.3.2. State Aid

Ports require significant and regular capital investment. Policy makers may consider that the market is better placed to provide the necessary funds. Ports can be loss makers and require regular state intervention and again politicians may prefer if the private sector managed this particular risk. Both these points may be supported by ideological preferences; however there is evidence of illiberal states privatising some elements of their port sector<sup>16</sup>. Private sector investment in the international seaport sector has increased significantly over the last two decades. Figure 4.4 shows the pace and extent of that policy shift based on data from the World Bank. Figure 4.4: Private investment



Investment data are drawn from the PPIAF World Bank dataset. [www.ppiaf.org](http://www.ppiaf.org), and 'seaports' refers to all ports.

The infrastructure category refers to assets in the energy, telecommunications, water, and transportation sectors. International seaports, including container ports, are a subset of the transportation category. Private sector participation in the provision of public infrastructure appears to be universal by the early years of the twenty first century.

<sup>16</sup> Hutchinson Port Holdings participate in a container terminal in Yangon, Myanmar. Taken from terminal listing on April 11<sup>th</sup> 2011 at [http://www.hutchison-whampoa.com/eng/ports/international/asia\\_pacific.htm#100](http://www.hutchison-whampoa.com/eng/ports/international/asia_pacific.htm#100)

The chart follows a standard ‘S’ policy adoption curve common in economics literature. However, it is limited to showing that the private sector has made a contribution rather than showing the degree to which liberalisation has occurred in the market for port services. What is of interest in the chart is the degree to which port investments lagged other utility sectors. This time variable is an important observation and is indicative of slower policy change albeit with a standard cumulative adoption trend.

State funding of port assets is often justified on the basis of the economic concept of ‘public goods’ (Baird 2004). The decision to provide these services and assets is a political one and the market is largely sidelined. Baird (2004) concludes that the “notion of major seaports in Europe providing some form of public good appears to have been abused, largely for the sake of local and/or national political expediency.” He argues that this remains the case in Germany, the Netherlands and Belgium. Finally he challenges our perception of the market place itself beyond state borders given that modern logistical solutions can deliver a container without necessarily using a seaport in the destination or originating country. State investment, that is aid, is therefore an intervention in the market and will be assumed to represent a constraint on market power. The greater the degree of state intervention through investment is an indication of a state coordinated market in the varieties of capitalism analytical frame. To avoid unjustified scoring in this dimension it is appropriate to disaggregate the measurement to three sub categories of asset class.

To assess the level of privatisation of the funding role in ports three areas are considered: marine infrastructure, terminal infrastructure, and terminal superstructure (Lee and Flynn, 2011). Marine infrastructure refers to the most expensive assets in a port that provide safe access for all vessels, that is, a channel of sufficient draft, navigation support and breakwaters. Terminal infrastructure refers to assets required to link a vessel with landside cargo handling facilities such as a quay wall and the basic land. Superstructure refers to the surfacing and servicing of the land along with the equipment required of a modern cargo handling operation. For each of these a score of 1 is assumed where the private sector assumes the risk. An average score is then used as the component value in the dependent variable.

Table 4.9 shows that nation states continue to fund large parts of significant port assets. For example, eighty-four per cent of observations in the data represent instances of funding responsibility resting with the state. A high score represents the extent to which

the private sector provides the funding. This trend typically relates to the marine and terminal infrastructure. Superstructure shows a greater role for the private sector and is generally tied to commitments made in lease or concession agreements, and represents sixteen per cent of the instances of private investment.

**Table 4.9: Relative Distribution of Funding by Region**

World Bank Region	Values are per cent of observations		
	High	Low	Total
Europe & Central Asia	30	70	100
South Asia	26	74	100
East Asia & Pacific	12	88	100
Middle East & North Africa	11	89	100
North America	10	90	100
Latin America & Caribbean	0	100	100
Sub-Saharan Africa	0	100	100
<b>Total</b>	<b>16</b>	<b>84</b>	<b>100</b>
Note 1. <i>High assumes greater than 50% of funding</i> Note 2. <i>Original data based actual policy profile of selected container ports described in Chapter 3.</i>			

The greater project activity is in this asset class but it is also the least expensive with shorter payback periods. The skewed nature of the state towards the public could be explained by different stages of economic development and/or the different funding characteristics of the three asset classes. The key point is that effective policy leans towards public funding of long-term infrastructure.

### 4.3.3. Price Setting

Economic theory tells us that markets self-regulate when the price is allowed to continuously adjust to reflect equilibrium between demand and supply. In the case of ports there are two pricing issues. First, the policy maker must decide on the pricing objective in terms of recouping a return on investments made. For example in Ireland and the United Kingdom port pricing must reflect the need to recover the full cost of the asset. In Europe the municipal or state authority will often provide non-recoverable aid to the port and the authority will seek to recoup operating costs only (Trujillo and Nombela, 2000:156). Second, economic theory assumes that there is a level of market contestability among service providers to provide the necessary dynamic that will push prices into equilibrium. In the modern world of container terminal operations there are

numerous examples of inadequate competition. Therefore where the market fails or is unable to self-regulate through the pricing mechanism there is an argument for the state to provide economic regulation in the public interest (Cullinane and Song, 2002:62).

Regulation of price by the state or the market is an indicator of how free it is to function. Policy makers often retain control over both port authority and terminal operator prices. Thus the market is not free to find price equilibrium. It may be that the market is structurally incapable of finding price equilibrium due to lack of transparent competition. There are three broad scenarios. A regulatory body such as a government department or a statutory entity may set prices in order to regulate the private sector. This is a policy level assessment of price mechanisms and does not include agreed prices set out in commercial concession agreements. The state or its delegate may set prices for the port authority only and in some cases it may also set prices for the stevedore. It is the policy of market intervention that is of interest so there is no distinction made here where the price control instrument is a limit on the maximum price, an acceptable range, or specific item level price control. They are all legitimate instruments of economic regulation. It is the absence of public regulation that indicates a level of private sector control.

As the majority of port cost is stevedoring related, a weighting is applied to the scoring mechanism. An industry 'rule of thumb' based on work in 1996 by Ferdinand Suykens is that stevedoring costs range between seventy and ninety per cent of total port costs (Trujillo and Nombela, 2000:155). Therefore the 80/20 Pareto rule is adopted with eighty per cent weighting to the absence or otherwise of price control for stevedoring activities. Where port authority costs, even though it may be wholly owned by the State, are set externally by a regulatory body or government department then a twenty per cent weighting is applied. Therefore a score of 1 will apply where both the stevedoring and port authority costs are set by the private sector. The score in the state aid component will provide the necessary adjustment where they are subsidised by the State. Where the port authority sets stevedoring prices it is assumed to be the state managing the market as there is an absence of private sector control identical to external regulation described above.

As the weighting is heavily towards the terminal operation a value of eighty per cent indicates that the market controls the cargo handling price mechanism. Forty one per cent of the market operates in this way while only four per cent allows the market to

control all elements of price. In lessor-developed regions there is evidence of full price regulation by the state.

**Table 4.10: Relative Mix of Price Regulation by Region**

World Bank Region	Values are per cent of observations				
	Public	Public/ private	Private/ Public	Private	Total
South Asia	100	0	0	0	100
Sub-Saharan Africa	100	0	0	0	100
Middle East & North A	82	6	11	0	100
Latin America & Carib	55	0	45	0	100
East Asia & Pacific	38	16	44	2	100
Europe & Central Asia	14	1	73	12	100
North America	0	49	51	0	100
<b>Total</b>	<b>42</b>	<b>11</b>	<b>43</b>	<b>4</b>	<b>100</b>
<p>Note 1. The higher the percentage level the more the private sector controls the price mechanism</p> <p>Note 2. <b>Original data based actual policy profile of selected container ports described in Chapter 3.</b></p>					

Table 4.10 provides a regional account of pricing policy over the period. Again there is a significant retention of regulatory power with the state as forty-two per cent of the observations show publically controlled pricing. This does not show any trends over time away from such a policy and this analysis is picked up in Chapter 5. In the fully private sector the United Kingdom is the unit driving the value. In the public category both South Africa and Indonesia feature and they are explored further in Chapter 6.

#### **4.3.4. Equity Rules**

Terminal operators are interested in protecting any investments they make including exercising control over the local operating entity. This entity may own, lease or concession the terminal from a port authority. In many countries there are limits on foreign ownership and domestic partners are often involved. This is the component that is often reflected in the domestic political debate, particularly where issues of national sovereignty are high on the agenda. Measuring the extent of non-state ownership is a useful indicator of market control. The component is assessed in two parts: the container terminal and the port authority. Again based on the relative revenue value of

the activities the assessment is weighted in favour of the container terminal using the 80/20 rule.

The key elements of the cargo handling enterprise are infrastructure and superstructure, which includes handling equipment. Each can be privatised without the other. The private sector can build, maintain, and operate such assets. However the private sector will require a sound basis for making a return on its capital investment. Certainty of tenure along with a reasonable time to make a return on such assets is the key consideration.

There are varieties of mechanisms used in port liberalisation projects that do not necessarily entail ownership by the private sector. The commercial and political issue here is one of control. The political term in this case is sovereignty. Some of the methods of transferring control on a time and performance basis are lease contracts and concession agreements in the stevedoring sector. For port authorities possible arrangements include management contracts and securitisation of net income streams represented as privatisation. For the purposes of the component under review, only actual ownership by the private sector is scored.

Using the revenue ratio from the study by Suykens (1996) the percentage of equity held by the private sector is weighted eighty per cent to the terminal management entity and twenty per cent to port authority. Therefore when the equity in the terminal management company is all in the hands of the private sector the variable will be scored at 0.8.

Table 4.11 again shows that advanced economies allow greater levels of equity holdings in port assets by the private sector. This is primarily driven by shareholdings in container terminals as only eight per cent of port authorities have private participation of more than fifty per cent. Overall forty eight per cent of ports have private shareholdings above fifty per cent of the total. It points to a relatively even spread over the observation period but again the time trend towards private ownership is likely to be significant. This will be explored further in Chapter 5. Again South Africa and Indonesia feature in the total public bloc although in the case of South Asia, Indonesia is not necessarily an outlier.

**Table 4.11: Relative Distribution of Equity Levels by Region**

World Bank Region	Values are per cent of observations		
	High	Low	Total
North America	100	0	100
Europe & Central Asia	85	15	100
East Asia & Pacific	57	43	100
Latin America & Carib	52	48	100
Middle East & North Africa	40	60	100
South Asia	0	100	100
Sub-Saharan Africa	0	100	100
<b>Total</b>	<b>48</b>	<b>52</b>	<b>100</b>
<p><b>Note 1. High assumes greater than 50% of the equity</b>  <b>Note 2. Original data based actual policy profile of selected container ports described in Chapter 3.</b></p>			

#### 4.3.5. Veto Power

Assuming the market owns a majority stake in the terminal management business, is free to set prices, compete and invest in a transparent manner, there is still the option for policy makers to retain investment control over the development of the market. In other words the state may insist on approving new developments through mechanisms over and above normal planning controls. This leaves the market uncertain as to how it can grow and prosper, while leaving the state with a means to manage political opposition to development projects.

It is important to understand the nature and relative market importance of these services, regulations and assets in order to understand the policy choices available when considering transferring some or all of them to the private sector. Privatisation of ports requires a clear matching of roles and responsibilities to create a successful institutional framework. Therefore the regulatory infrastructure is a vital part of the reform process and it has the potential to restrict the apparent free role of the private sector.

Ports are complex and high-risk environments. A myriad of international and national safety regulations have developed over the centuries and their implementation are primarily the responsibility of the state. Regulations in the environment, ship safety, cargo handling safety, ship and cargo security, passenger security are generally embedded in a mature international regime. The most significant authority is the International Maritime Organisation. For example, when the events of 9/11 unfolded,

the USA brought considerable political pressure to introducing enhanced regulations for the transport of passengers and goods. The changes were rapid and processed through the IMO<sup>17</sup> as an addition to the SOLAS<sup>18</sup> Convention known as the ISPS<sup>19</sup> Code. Roles and responsibilities for such regulations need to be defined in any deregulation process, whether it is devolved to the private sector or if it remains as part of the public institutional framework. In both scenarios they can impose considerable additional costs on the market actors.

It is quite difficult to assess the application of regulatory rules and their economic impact in such a comparative study. The impact of price regulation and ownership is already factored into the dependent variable. The approach in this component is to focus on investment approval. While the responsibility for investment may rest with the private sector, the state may still retain the power of veto on development projects. As discussed in the section on state aid above there are three main project areas in ports: maritime infrastructure, terminal infrastructure and terminal superstructure. The absence of veto power for each of these segments is scored as 1. The component score is an average of the three sub-component scores.

Table 4.12 shows the distribution of veto values for the selected countries. The three strategic planning areas are measured and then averaged. Therefore a score of zero suggests the state exercises full control over investment planning with 0.33 and 0.67 representing greater independence for the market.

The results show that nation states still retain the option to veto major port projects and thus intervene in market operations. This variable represents the lowest contribution to the combined policy outcome variable. In political terms this perhaps is not a surprise as ports form a significant part of national development planning. In scenarios where market coordination is the economic norm the state may retain a veto power to ensure that port capacity is not duplicated. It is heavily skewed to the first column, which represents marine infrastructure projects. This is a particular issue for policy makers in a market led environment, as the market does not have a history of funding marine infrastructure that has long-term low yields.

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<sup>17</sup> International Maritime Organisation

<sup>18</sup> Safety of Life at Sea

<sup>19</sup> International Ship and Port Facility Security Code; implemented as an amendment to the SOLAS Convention (1974) from July 2004. Agreed by signatories in December 2002.

**Table 4.12: Relative Retention of State Veto Power by Region**

World Bank Region	Values are per cent of observations			
	Marine Infra-structure	Terminal Super-structure	Terminal Infra-structure	Total
East Asia & Pacific	63	37	0	100
Europe & Central Asia	21	67	12	100
Latin America & Carib	48	52	0	100
Middle East & North Africa	89	11	0	100
North America	49	51	0	100
South Asia	100	0	0	100
Sub-Saharan Africa	100	0	0	100
<b>Total</b>	<b>58</b>	<b>39</b>	<b>3</b>	<b>100</b>
<p><b>Note 1.</b> <i>The higher the value the greater the level of political veto on investment projects</i></p> <p><b>Note 2.</b> <i>Original data based actual policy profile of selected container ports described in Chapter 3.</i></p>				

In the models tested in the following chapter it is important to note that the veto dimension to the policy variable represents a specific assessment of port development regimes. By contrast the economic institutional frames used as explanatory variables, including foreign investment and capital control rules, are intended to reflect economy side regimes that constrain market actors in responding to state policy. It is a fine line however great care is taken to account for endogeneity with the data.

#### **4.3.6. Composite Variable**

In summary, the dependent variable assesses the relative economic control of the container port market place. It is demand focussed in the sense that it considers issues from the perspective of the customer. These are the areas where the market is seeking reform from policy makers. The dependent variable is the sum of the above five that together indicate the extent to which the state has devolved power to the market. No weighting in the compilation of the composite scores is proposed, other than as specified for dimension scores. The higher the measure the more the market is in control or privatised. Each of the components has sub-components that will facilitate a more nuanced comparison of country level data. Table 4.13 data shows that veto power is often retained by the state and makes the least contribution on average to the composite score. It also indicates that the state is still required to provide the funding for the more

expensive assets in container ports. The variability in the data is of interest and indicative of different domestic contexts producing different policy solutions.

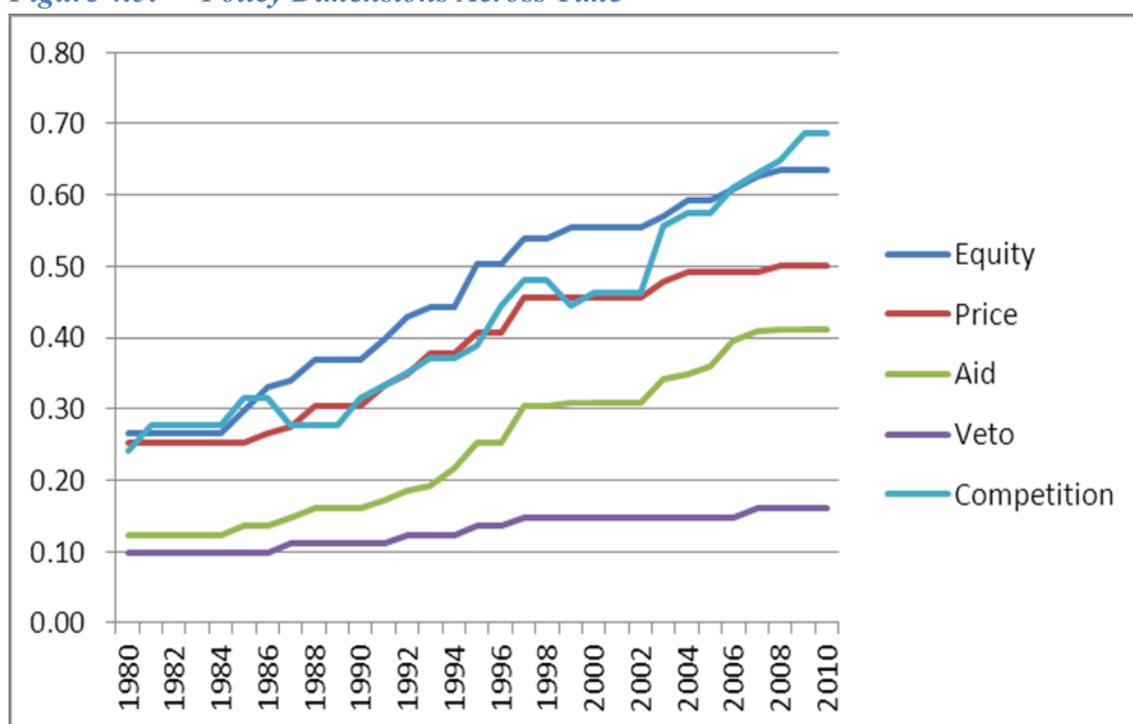
**Table 4.13: Mean Values of Each Market Dimension by World Bank Region**

	Competition	Equity	Price	Aid	Veto	Composite
East Asia	0.57	0.51	0.44	0.24	0.12	1.89
Europe	0.54	0.71	0.70	0.42	0.30	2.68
Latin America	0.48	0.41	0.36	0.17	0.17	1.60
MENA	0.05	0.31	0.08	0.17	0.04	0.65
North America	1.00	0.80	0.60	0.36	0.17	2.94
South Asia	0.24	0.12	0.00	0.21	0.00	0.56
Sub-Saharan Africa	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>0.48</b>	<b>0.50</b>	<b>0.42</b>	<b>0.27</b>	<b>0.15</b>	<b>1.82</b>

**Note 1.** *The higher the value the greater the level of private participation*  
**Note 2.** *Original data based actual policy profile of selected container ports described in Chapter 3.*

The policy measures also provide an innovative way to chart trends in policy development over time. The average policy value across all the observations is 1.82 against an ‘ideal type’ privatisation score of 5.

**Figure 4.5: Policy Dimensions Across Time**



Clearly, the argument that when measured on a continuum of market dimensions the international container port sector is far from privatised. It is also true that there is considerable internal variance in the dependent variable. Figure 4.5 shows the movement in average values for each of the market dimensions measured. The trend in the competition variable is upward for the period albeit with spells of hesitation. Equity and price variables are consistently indicating a transfer of power to the market. The increase in the investment ratio of private to public is consistent with research trends that show an increased role for the private sector. However, movement for the political veto variable is minimal.

#### **4.4. The Data**

In 1980 the volume of containers<sup>20</sup>, measured in twenty-foot equivalent units, shipped through ports amounted to 35 million units. In 2010 this number had risen to 545 million units; a fifteen fold increase. The number of container ports recorded by Containerisation International rose from 274 to 511 in the same period. The average annual volume moved through ports rose from 128 thousand to just over one million TEU per port. Based on the competitiveness studies discussed earlier, this growth justified the economic argument for a competitive market and therefore policy change. Secondly this growth arguably generated a good deal of competition between countries for a share of this evolving market; and as was shown earlier a growth in multinational enterprises to service this same market.

The strategy for selecting this dataset consisted of first identifying those ports that are of sufficient scale to justify a competitive market, thus creating a set of data representing the population of competing maritime nations; and second, by selecting those countries that represent the largest in the market in 2007. The logic for choosing 2007 as the benchmark year is that it reflects the year before the trade downturn evident in most countries from 2008. It therefore assumes that most of the ports in the sample might reasonably be expected to have experienced some form of policy change.

By assuming that an annual volume of 300 thousand TEU represents a potentially competitive market 202 ports across 82 countries representing ninety-four per cent of volume globally were selected. This revised data represents the sum total of potentially competitive container ports in maritime states. The second stage involved selecting the

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<sup>20</sup> As per data from [www.ci-online.co.uk](http://www.ci-online.co.uk)

50 largest ports, which provide the base dataset for the modelling to follow. In many cases, for example China and the USA, there are more than one port per country. The objective of the hypothesis testing will be to take the national political structure, interests and economic conditions and compare them against the extent to which a country will allow private interests to manage elements of the market. All policy values in the data represent the actual governance practice at the time of measurement. They are therefore local or port specific. They reflect public and private actors' action or inaction in 'stretching' the policy environment, which may be a product of federal, municipal and regional political structures. Therefore, this dependent variable is independent of political structures and policy setting mechanisms. The metric reflects market conditions whether national or local politics engage or not. The variable captures the impact of a range of inputs to policy frames. Controls are implicit in the economic and political explanatory and intervening variables, which is discussed at length in chapter 5.

The maximum value for each country is of interest here and therefore the largest port in each country in 2007 is assumed to represent the leading policy position of that state. Seven of the twenty-nine countries selected have more than one port as shown in Table 4.14. In each case the largest port is the most advanced and reflects a significant share of the national market. While data was not collected from the other ports in the seven countries<sup>21</sup> there is no evidence that the market structure, on which the dependent variable is based, is different regionally.

In the case of competition the larger ports have the larger number of terminals; and the variable is based on two or more competing terminals. Therefore, the result for the largest port is likely to reflect the maximum possible nationally. In the case of equity investments it is likely that the largest port will reflect the maximum allowed under national rules for foreign and domestic investments. The final data, before input to test models, includes 29 countries across the period 1980 to 2010.

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<sup>21</sup> China, United States, Japan, Spain, Taiwan, Germany, and Malaysia.

**Table 4.14: Selection Profile**

Countries with Top50 container ports in 2007	Number of Ports	TEU for 2007 Millions
China	9	93.0
United States	5	26.0
Japan	5	15.2
Spain	3	9.1
Germany	2	14.8
Malaysia	2	12.6
Taiwan	2	12.5
Singapore	1	28.0
Hong Kong SAR, China	1	24.0
Korea	1	13.3
Netherlands	1	10.8
United Arab Emirates	1	10.7
Belgium	1	8.2
Thailand	1	4.6
India	1	4.1
Sri Lanka	1	3.7
Indonesia	1	3.7
Italy	1	3.5
United Kingdom	1	3.3
Vietnam	1	3.2
Saudi Arabia	1	3.1
Philippines	1	2.9
Egypt	1	2.8
France	1	2.7
Oman	1	2.6
South Africa	1	2.5
Brazil	1	2.5
Canada	1	2.3
Australia	1	2.2
<b>Grand Total</b>	<b>50</b>	<b>327.5</b>
All Container ports in 2007	558	485.2
Per cent selected	9%	67%

In terms of the final variable no country reaches the maximum liberalised score of five. In fact no country reaches four out of five. The highest value goes to the United Kingdom as expected; and even in this paradigm shifting administration regulatory control is maintained over new projects in the form of a state veto. In all the sub-

variables, but the state veto, there are examples of countries reaching the maximum value.

**Table 4.15: Dependent Variable Summary Statistics**

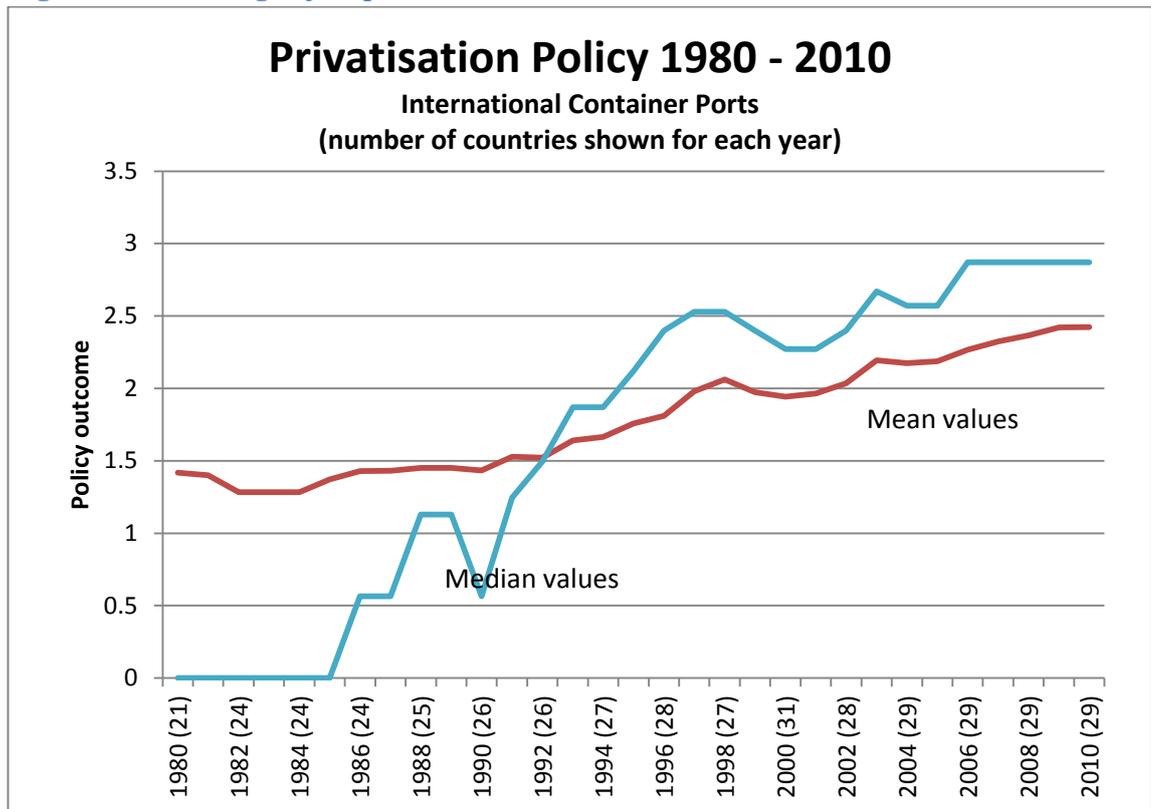
Summary statistics	Policy composite	Competition	Equity	Price	Aid	Veto
Mean	1.817	0.475	0.503	0.419	0.271	0.147
Standard Deviation	1.443	0.471	0.380	0.384	0.255	0.183
No. of observations	825	825	825	825	825	825
Minimum value	0.00	0.00	0.00	0.00	0.00	0.00
Maximum value	3.670	1.000	1.000	1.000	1.000	0.670
Note 1. <i>The higher the value the greater the level of private participation</i> Note 2. <i>Original data based actual policy profile of selected container ports described in Chapter 3.</i>						

Table 4.15 describes the summary statistics for the dependent variable. Equity shows the highest mean value, which is consistent with the assessment of privatisation levels based on equity stakes in container handling operations. The total number of observations at 825 is significant for statistical analysis purposes.

Figure 4.6 illustrates the movement in the mean value for the dependent variable. The continued dispersion in values is consistent with the argument that nation states are not converging on a single model. This shift upwards in the average score is consistent with a trend in liberalisation policies. In a number of cases, there is evidence of no increased power to the market and yet there is continued trade growth. In some cases this is because they entered the period with an evolved model such as the Netherlands, Belgium, Japan, and Australia; in other cases it represents a policy of state control and no change such as Taiwan and South Africa.

In the case of the state veto there is little overall change in the sample countries with the exception of freedom to develop the superstructure of each terminal subject to normal planning regimes. The tendency to rely on the state for major investments such as dredging remains a feature although there is evidence of the market taking a greater role in funding new terminal infrastructure such as new quays and the related lands to support the cargo handling operation.

Figure 4.6: Range of Dependent Variable Scores

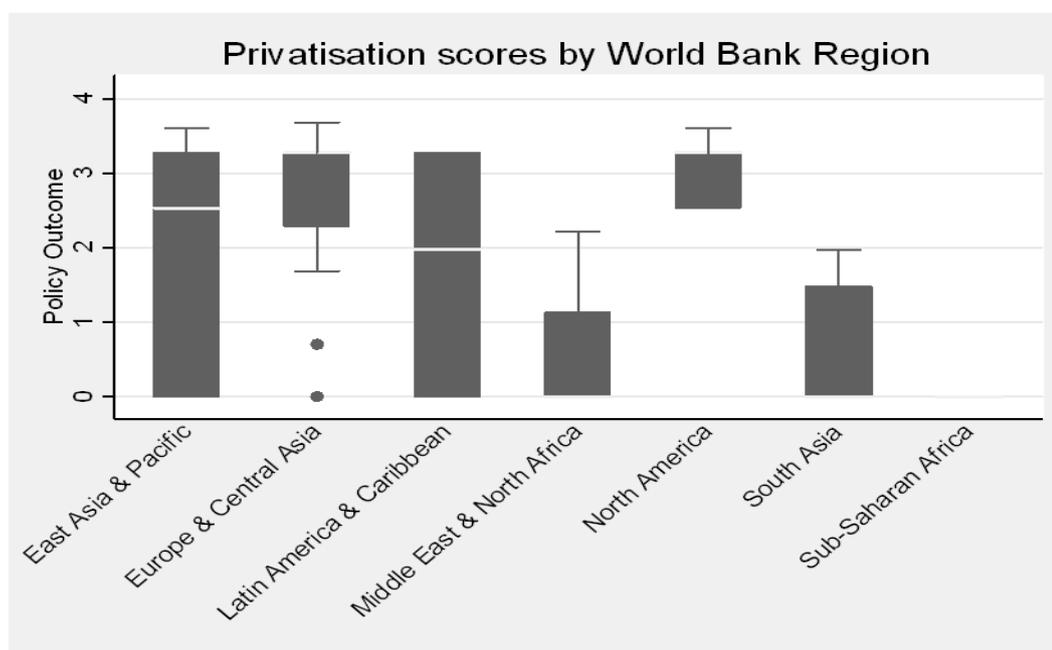


There is no contradiction here with other analyses that have recorded reforms in countries that show little change in this data. This is because of a different assessment of liberalisation. The devolution of control from federal to local administrations or the creation of autonomous corporate port authorities can be represented as liberalisation. This is not disputed however, as ownership and control over these entities, remains in state hands it does not in substance represent an increase in the power of the private sector. Evidence of state control over these corporatized entities can be found in how boards of directors or equivalent are appointed by politicians; in how strategic plans are set or approved by politicians; or in how budgets are subject to political approval. These reforms, which arguably are designed to improve efficiency and market flexibility, do not represent a shift in effective control to the private sector. They continue to be scored as state led, although arguably the institutional context is increasingly market friendly.

One feature of the data is that the components can be reconstituted to construct dependent variable variants to measure change or variation in specific aspects of the market such as competition, ownership and economic regulation. For example, the state

usually retains some form of veto power over major infrastructure projects so a variant could exclude this factor. Combining price and investment variables can constitute an economic regulation variable as the state can control the private sector by limiting investment flows or managing price. The level of equity can be used as a proxy for ownership constraints, usually relevant to foreign investors. In summary the data represents a reasonable sample of the relevant market and the resultant dependent variable is sufficiently dispersed to suggest an absence of policy convergence over the period. However there may be convergence within regional groupings, which is the substance of hypothesis three (H3).

**Figure 4.7: Regional Variation of Dependent Variable**



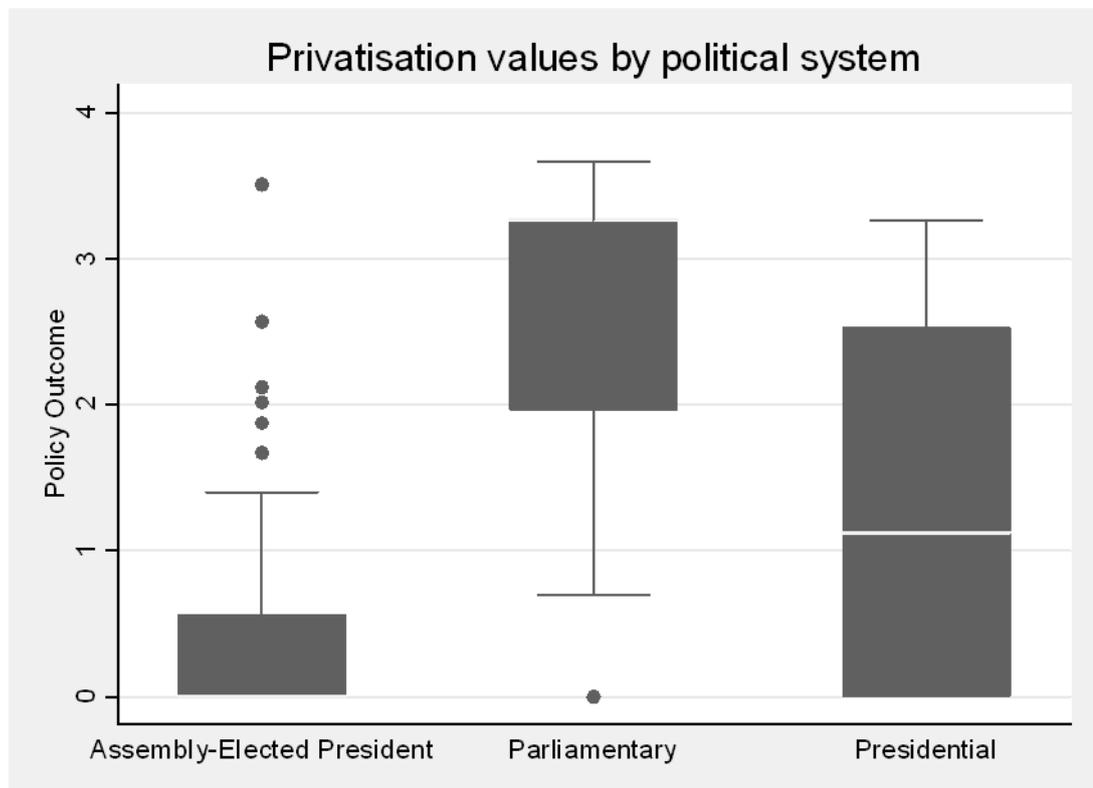
Note: This a boxplot representation of the data collected for the 26 selected countries. The solid part represents the observations to be found between the 25<sup>th</sup> and 75<sup>th</sup> percentile with the 'whiskers' illustrating the distance the outer percentiles are from the mean. The point values or dots and considered outliers in the data.

Figure 4.7 describes the variation in the dependent variable values in terms of World Bank regions. It is of interest; however, there are insufficient observations in a number of the groupings. To get greater value from the regional analysis the number of countries need to be expanded or an alternative regional classification be used. Therefore, the port governance country typology developed further in Chapters 5 and 6 will be used to test the regional convergence hypothesis (Bennathon and Walters, 1979; Lee and Flynn, 2011).

#### 4.5. 'States to Market' continuum

The transformation of macro-economic policy direction over the recent decades from embedded liberalism and state intervention to market driven liberalism and privatisation has been described as paradigmatic (Blyth, 2002). Examining the interaction between states and markets is a useful prism for those interested in comparative political economy when considering the role of the state in the global economy. One aspect of the economy, that is the closest by definition to this line, is the role of the public sector and the normative trend towards privatisation of public services. In the case of transport services, in particular international container ports, there is an opportunity to examine the politics of change over the last three decades. Previous research measured privatisation in macro-economic terms such as asset sales or changes in the size of the public sector. This does not necessarily focus on the transfer of power to the market. Equally measuring liberalisation as a function of privatisation revenues does not allow for policies that do not involve a sale of assets; and they do not adjust for relative scale and importance of the port sector to differing economies.

*Figure 4.8: Variation in Dependent Variable by Type of Political Institutions*



Note: This is a boxplot representation of the data collected for the 26 selected countries. The solid part represents the observations to be found between the 25<sup>th</sup> and 75<sup>th</sup> percentile with the 'whiskers' illustrating the distance the outer percentiles are from the mean. The point values or dots are considered outliers in the data.

Figure 4.8 below charts the dispersion of policy outcome values across different political settings. This suggests that the more advanced parliamentary democracies will transfer greater control over container ports to the private sector. This will be examined further in Chapter 5 as part of the hypotheses testing. The variety in the dependent variable is a positive for later modelling, which includes a variable for political institutions and constraints on policy decisions.

The dependent variable represents an agenda for policy makers, arguably as set by the demands of the international shipping market. It requires regulatory action in terms of competition, ownership, investment, pricing, and development. Quantifying how far along the liberalisation continuum each state has moved to is essential to a comparative study of this type. This is more important given that the objective is to measure policy variation across different states, including illiberal settings, rather than charting policy change as an event in time and space. At this point, an innovative policy outcome measure provides the means to test for associations between domestic political and economic institutions as explanatory variables, and port governance institutions as policy outcomes. This is consistent with theories of path dependent policymaking based on dynamic institutional combinations. The next chapter specifies the appropriate econometric models to test for statistically significant support for the theory of change proposed.

## **Chapter 5: Modelling change in public infrastructure policy**

This section of the dissertation will analyse new data that includes the policy outcome variable described in Chapter 4, and independent variable vectors encompassing political structure, macro-economic conditions, and domestic economic policy context. In so doing the results from testing the hypotheses described in Chapter 3 are presented and discussed. The propositions tested are that domestic politics does account for policy outcomes different from perceived international norms and in the influence of economic factor interest groupings; and that complementary economic institutions do influence policy outcomes. These are consistent with path dependency arguments, which are explored further in the Chapter 6 case studies. As well as supporting the arguments that domestic political and economic context will influence policy outcomes, the results also suggest that such contexts do show evidence of regional convergence. The chapter proceeds with a brief re-statement of the hypotheses and the methodological strategy from Chapter 3. This is followed by a description of the variables included, a presentation of the tests applied, and their results, concluding with a positive assessment of the evidence in support of the thesis propositions.

### **5.1. The arguments**

The international container port sector is a useful lens to test explanations as to public policy variance across nation states. The policy outcome variable described in Chapter 4 is a measure of the extent to which nation states devolve market power to private sector actors. Thus a high score on this zero to five-point scale means that the private sector controls all functions in a port. It is based on actual governance profiles observed across the selected ports rather than frameworks enabled by legislation. It therefore reflects the take up by the private sector of functions for which they are eligible. It assumes that the private sector will assess their decisions, not just on the incentives and permissions in any port legislation, but they will also take account of relevant economic rules in the wider economy. Further, any decision to partake will take account of port actor opposition. This political analytical frame is rarely employed to predict the level of privatisation by country type. More particularly the marginal impact of domestic interests is seldom tested in political economy analysis of privatisation.

The theoretical review in Chapters 2 and 3 concluded with a theory as to how the reform process works and why there is observed policy variance cross nationally. It also

proposed a theory as to why there is little change within unit over time based on self-reinforcing and reactive path dependency arguments. This causal framework argued that domestic capital and labour do mobilise and contest policy proposals by the executive within a domestic political and economic structural context. An extension to this argument is that groups of countries share common social, economic, and political views as to appropriate behaviour; and therefore policy outcomes cluster around group norms. Three hypotheses were proposed in Chapter 2, noted below, and explored in further detail in the sections that follow.:

H1: that as domestic maritime capital power in the economy rises then the level of privatisation in ports will be lower.

H2: that as the power of dock labour rises then the level of privatisation in ports will be lower.

H3: that where nation states share common economic and political regime characteristics then port policy outcomes will tend to converge within these groups.

The methodological strategy is to complement regression analysis on new datasets and variables with an analytical narrative, focussed on the labour proposition (H2), the country typology (H3), and country cases that deviate from their expected dependent variable value. This fits with a broader interest in the demise of labour in an interdependent market place such as the globalised container trade. The domestic capital hypothesis (H1) is included to allow for standard globalisation theories, which is discussed in Chapter 2. Its causal direction reflects arguments of trade theory where protectionist sentiment may remain a factor (Henisz and Zelner 2006:267). The nature of the outcome variable is that it is slow moving with a small number of changes per country across the period from 1980 to 2010. Therefore, the focus of the testing is on cross-national variance and on controlling for the impact of serial correlation in this heavily trending data across time. The data shows that in the port sector labour continues to be relevant and that policy outcomes do cluster around groups with similar institutional structures. This neighbourhood convergence thesis, while theoretically constructed, tends to reflect physical proximity and a shared colonial past.

## **5.2. The Dependent variable**

Measuring policy outcomes (PRIVAT) is a challenging exercise in most scenarios. In the case of public infrastructure, and their related services, the challenge is to capture the extent to which functions are transferred from the state to the market, or vice versa. The dependent variable measures policy outcomes across the three market dimensions of competition, property rights, and economic regulation. The basis for the variable construction and the collection and development of the raw data was described in detail in Chapter 4. This provides a five part scale that when combined provides an assessment of how far the state has devolved power to the market. Policy is slow moving with a high degree of correlation in these data with lags of one year at 0.98; and five years at 0.91. As the tests are intended to isolate explanations for cross-national variance the slow policy change may be moderated by a high number of countries in the data (Beck and Katz, 2001). However, in modelling, the weight of previous within-panel policy outcomes needs to be accounted for to provide a better assessment of the standard errors reported. The slow movement for within-panel policy change is consistent with, but not evidence of, the path dependence theoretical arguments that underwrite the propositions in this thesis.

### **5.2.1. Domestic interests as explanation**

There are a number of maritime nations that have a long tradition of holding a national merchant fleet as a strategic economic resource. National merchant fleet ownership has varied in character and purpose throughout history. During the globalisation wave of the late nineteenth century such assets were employed as tools of diplomacy (Stopford, 2009). Ownership varied between private and public hands; however public control is often a feature. Those states with maritime interests seek to maximise their fleet through various incentives. For example, in modern times a favourable tax regime<sup>22</sup> for large capital investment in shipping is an incentive. In times past the incentive may be a lower assessed vessel tonnage thus attracting lower operational costs measured by vessel size. This feature changed during the period under review with a twelve year transition to an international standard form of measurement starting in 1982 (Universal Measurement System: The London Convention, 1969). The key points are that ship type definitions and measurement, along with greater freedom to change registry, in a very real way created a market for fleet registration. Nation states compete for larger merchant fleets or for the economic benefits associated with fleet registration and

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<sup>22</sup> In the Irish case, a favourable 'tonnage' tax regime for corporate taxes was introduced to incentivise ship registration in Ireland.

management. In this environment, domestic shipping interests organised into business associations and typically argued for the maintenance of the national ship registry and for a guaranteed market share in cargo movement through cabotage regimes. While not all the registered tonnage will be domestically owned, or controlled, it is an indication of state policy towards maintaining a significant registry; and is indicative of protectionist sentiment from domestic shipping interests.

The key decision makers in the port service environment, as referenced in the policy outcome discussion in Chapter 4, are ultimately ship owners. They are a useful lens to assess the influence of capital interests in the port sector given the significant shift in power to generators of customer demand. Therefore, a measure of domestic ship capacity, as a function of cargo traded through the port, will give a relative measure of domestic demand for port services. It is reasonable to assume that when of sufficient scale they can mobilise and seek to protect their interests accordingly. Registration data for the World Merchant Fleet<sup>23</sup> are maintained by UNCTAD per country, per vessel type, in deadweight tonnage (UNCTADstat, 2012). Deadweight tonnage as a weight measure, as distinct from volumetric measures like Gross or Net tonnage, is used; and is a good proxy for relative cargo carrying capacity. The logic of data selection and measurement applied across this work is to focus on data for container ports, and thus avoid any comparative issues because of radically different cargo profiles among the selected ports. The same logic is applied to measuring fleet size for consistency and thus avoids possible cross-national distortions from including large deadweight tanker fleets. This also reflects the political logic that domestic capital actors, defined as those with a stake in container ports, will mobilise to protect their interests. It is less likely that tanker owners will mobilise in opposition or support of container port privatisation. As discussed in Chapters 2 and 4 the port sector is best compared at a cargo mode level, especially as the international and domestic political contexts may vary across those very same cargo modes.

By taking the deadweight tonnage registered for container vessels and expressing it as a percentage of the container tonnage traded through each country each year a relative proxy measure of domestic capital trade share is calculated. The tonnage calculation

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<sup>23</sup> Merchant fleet is drawn from <http://unctadstat.unctad.org> under the Maritime Transport tab and World Merchant Fleet reports. The calculation is [Merchant container fleet registered by state (DWT) / (TEU for period x 20)] x 100

adapts the container volume data gathered from Containerisation International dataset by imputing an average tonnage per twenty-foot equivalent unit (Containerisation International, 2012). This representation of domestic capital interests is a valid comparator cross nationally as the numerator and denominator in the calculation are sourced from single international datasets, and prepared on a consistent basis cross nationally and over time. The imputed average per weight container is based on an industry rule of thumb for gross container weight. Its uniform application ensures a valid comparison cross nationally.

Many port reform programmes face resistance in the form of labour conflict, and the strength or weakness of this grouping within a state represents another explanatory variable. Labour conflict and reform is of interest to many scholars not least Peter Katzenstein (1978: 335). Garret and Lange (1996:48-75) discuss the use of such socioeconomic variables in understanding causes of institutional change or constancy. In the same work they also discuss the use of formal political institutional variables as representative of societal interests and as the mechanism that delivers the change agenda rather than other variables that describe a domestic debate. The case Chapter 6 presents evidence connecting labour and port reform as mutually beneficial in terms of policy success. Resistance by labour interests is therefore a valid part of any explanation of policy change.

Union density levels are often used as a proxy for labour interests and more particularly for labour mobilisation; however, it is more likely that dock labour is at or near one hundred per cent density. It is also a variable with limited time and country coverage. The argument is that strong organised labour in an economy will agitate against port governance reform because of the negative social costs described in Chapter 2. In the data selected not all countries facilitate union membership or labour activism. Nonetheless, it does not follow that the absence of unions will constrain dock labour from influencing policy outcomes given the process mechanisms implied by the theoretical propositions in Chapter 2. There are business friendly indices that rate labour institutions, which if inverted may be adequate for modelling purposes. However, they have limited time coverage.

The Cingranelli–Richards Human Rights Dataset includes a workers rights variable that is available for the period under review. It reflects the institutional capacity of organised

labour, and therefore is relevant to the policy change thesis. The metric is weighted heavily towards the assertion that workers should have freedom of association at their workplaces and the right to bargain collectively with their employers. “The variable indicates the extent to which workers enjoy these and other internationally recognized rights at work. A score of 0 indicates that workers’ rights were severely restricted; a score of 1 indicates that workers’ rights were somewhat restricted; and a score of 2 indicates that workers’ rights were fully protected during the year in question” (Cingranelli-Richards Codebook, 2010). This variable provides better coverage of the countries and period under review and is a proxy for labour capacity to mobilise. As discussed in Chapter 2, such a capacity does not necessarily result in labour activism but does make it more likely. Actual dock labour activism is explored further in the case studies in Chapter 6.

### **5.2.2. Political institutions as context**

Many changes in port governance regimes have their authority in legislation passed through formal political institutions. Existing research on public infrastructure privatisation will typically argue that domestic institutions are a strong predictor of policy outcomes (Henisz and Zelner, 2006). Relevant to these data and industry segment are those that suggest that the greater the level of democracy the greater the role of the private sector in the national economy. Another argument is that the greater the number of constraints on the executive, that is veto points, then the lower the policy change will be. This latter assertion does not argue for higher or lower level of privatisation but does reflect the capacity of institutions to embrace change (Tsebelis, 2000). Both are relevant to port governance reform and are included in all the statistical models. They are expected to have a substantive effect in the models. However, they are likely to act in opposite directions. It will be useful to isolate the separate effects of each as the veto player thesis is generally applied to change events rather than a continuous dependent variable.

The two complementary variables employed are drawn from the Polity IV project. The first is a blend of the score for democratic and autocratic institutional characteristics (Polity\_2). Its construction is specifically intended to facilitate time-series models. The data series are drawn from the composite dataset maintained and updated by the Quality of Governance Institute (QoG, 2013). This provides profile data of the selected countries in terms of their relative institutional characteristics. This Polity metric includes a sub-variable for decision constraints on the executive (XCONST). This

constraint variable measures the impact of institutionalised constraints on decision makers across democracies and autocracies, and has its origins in the work on decision rules by Eckstein and Gurr (1975), and compiled by the Polity IV project. (QoG, 2013). This second variable is used to isolate the marginal impact, in the opposite causal direction, of the role of decision structures in the policy making process. The constraints variable also changes the number of decision points to reflect the degree to which preferences are in conflict and to some degree may be sympathetic to ideology as a predictor of port reform policy. This is discounted in the theory proposed in Chapter 2 and thus decision constraints are regarded as simply a reflection of how challenging it is to implement change given the high degree of reactive path dependence and policy stretching visible elsewhere in the evidence presented. The testing will isolate their separate effects given that one is a subset of the other.

### **5.2.3. Macro-economic context**

It is also common in the privatisation literature to see economic controls in statistical models. In this case three common variables are used, as conditioning forces, to capture the impact of trade openness, foreign direct investment and economic development. All are difficult to draw inferences from in this analysis given the high risk of endogeneity in the data. In all models, they are lagged by one year as a standard treatment. Consider first the problem of trade as a facilitator of port growth or vice versa. At the very least port performance can be a constraint on trade growth and therefore openness. One cannot exist without the other. In the case of foreign direct investment it reflects the capacity of ports to reform their structures and become attractive to foreign capital. Economic development is a different variable in that it reflects the relative scale of national income per capita and normally higher income levels would suggest a greater role for the market economy. There are, however, commodity rich economies with exceptional levels of income per capita not necessarily linked to merchandised trade in containers. This variable is converted to a logarithmic scale (log transformed) in all the models to smooth out the extreme values in the data (\$220 to \$48,820), thus rendering the results more amenable to analysis. The data are again taken from the latest QoG dataset in turn compiled from World Development Indicators (QoG, 2013). Trade openness is a function of imports and exports expressed as a proportion of GDP (TRADE). Foreign direct investment is a function of external investments in domestic stock expressed as a percentage of GDP (FDI). The variable for economic development

is the annual average gross national income per capita, log transformed in the statistical models (GNIPC).

A common variable or set of variables employed in infrastructure studies is a proxy for economic crisis. This would test the proposition that states will make a paradigmatic shift towards privatisation when facing economic collapse or conditionality associated with supported recovery. There is little support in the data for the largest successful container ports despite some facing some form of crisis during the period such as those in Thailand and Indonesia. Countries outside these data may provide support for this argument and the Greek crisis from 2008 onward may be a useful case to study (Pallis 2013). This topic is explored further in the cases examined in Chapter 6.

#### **5.2.4. National economic interests**

The literature on varieties of capitalism argues that complementary economic institutions are part of the framework for comparing economies (Amable, 2003; Amable and Palombarini, 2009). Literature on economic nationalism argues that nation states establish economic rules of behaviour to further national economic interests and that these can be both protectionist and open in character (Helleiner, 2002). Their inclusion as control variables does not suggest that they are drivers of reform but is intended to establish that economic context is supportive of the path dependence thesis. In short, the proposition is that economic freedom for international terminal operators and shipping lines to participate in national economies is a function of the relevant economic rules for foreign participation. The Economic Freedom of the World Index (EFW) constructs such a set of variables from various established independent metrics (Frazier Institute, 2013). The data is available in continuous format for the period 2000 to 2010; and in five-year panel format from 1995. Therefore, a second dataset is constructed and the statistical models described below are tested with the addition of four economic context variables.

In researching port privatisation, security interests do not play a significant role in maritime economic literature. However, in examining specific countries strategic interests certainly feature in the political discourse. In the main, it features as a line of argument used by interest groups to influence a policy process or to maintain a particular set of beliefs on what is appropriate. It may also be the case that military power, in a political sense, is witnessed in the veto element of the dependent variable. A

sub-variable of the EFW index measures the influence of the military on the domestic economy on a scale of 0 to 10. The higher the value then the less the military has an influence on the economy. In the context of ports it is often the case that the military are present at particular berths, or have an equity interest (formal or informal) in a terminal, or are institutionally embedded in the economy. This latter scenario is the case in Indonesia based on an interpretation of the national constitution, which will be discussed in more detail in the relevant case study in Chapter 6. This military variable is included as a control (MILITARY).

Ports are highly dependent on investment to maintain competitiveness and continued growth. Access to global capital is often regarded as a key success factor in modern port development. Financial returns on such investments are long term and as such the political risk factor in a project appraisal is a critical element in scoring the relative value of a project. Three further sub-variables in the economic freedom index are used here. They assess the effective risk for international investors in terms of capital controls, investment regimes, and property rights. The higher the scores on these 0 to 10 scales, then the more market friendly are the rules. Therefore, a high score for each suggests that an investor will be free to transfer capital in and out of a country (CAPITAL), to take a majority stake in a commercial entity (INVESTMENT), and to have legal certainty in the value of property related contracts (PROPERTY).

Tables 5.1 and 5.2 describe the relevant statistics for the variables employed across the two datasets. They overlap in time for the final decade of the period under review and differ in the number of observations to test. They describe the mean value for the variables included in the explanatory models along with the range of recorded values. The standard deviation provides a view of how concentrated the collected values are in relation to mean values. The data cover a sufficient period and national units (panels) to justify the use of regression techniques to identify patterns and associations between the variables.

**Table 5.1: Descriptive Statistics for Variables 1980 to 2010.**

Variable	Obs.	Mean	Standard Deviation	Min	Max
Policy Outcome (0-5 scale)	806	1.71	1.45	0	3.67
Domestic Container Shipping Interests (per cent of market)	805	14.50	20.20	0	154.4
Worker Rights (CIRI) (0-2 scale)	780	1.08	0.80	0	2
Political Institutions (Polity_2) (-10 - +10 scale)	806	4.24	7.22	-10	10
Executive Constraints (0-7 scale)	806	5.29	2.06	0	7
Foreign Direct Investment (per cent of GDP)	806	2.59	5.19	-3.54	92.67
Trade Openness (per cent of GDP)	804	77.86	69.42	12.01	460.47
Economic Development (GNIPC) (Current USD\$)	806	13,366	12,821	220	48,820
<b>Note 1:</b> This is the primary dataset, which does not include the economic openness variables discussed. They are included in the second dataset summarised in Table 5.2					
<b>Note 2:</b> Economic Development is converted to Log values in the regression models					

Policy outcome values are higher in the later period with a smaller relative standard deviation, which testifies to greater privatisation globally as argued by the convergence thesis. The minimum and maximum values still suggest cross-national variance as evidenced by the values in Table 5.2. Worker rights are lower in this last decade than the overall period average, which suggests that power in the labour market has shifted back to capital. For example, in the United Kingdom unions now function under constraints such as strike ballots and picketing. Labour legislation, introduced by the Thatcher administration, and not repealed in the Blair era, made strike polls by secret ballot mandatory and confined picketing to a specific place of work. Therefore wider labour support in a dispute was constrained.

Political and economic variables all indicate a progression to more democratic values and more open trading economies. While the number of data points is less, the use of the smaller dataset to test the influence of economic regime variables is justified as the shift in mean values for the independent and control variables still maintain sufficient cross-national variance.

**Table 5.2: Descriptive Statistics for Variables 2000 to 2010**

<b>Variable</b>	<b>Obs.</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Min</b>	<b>Max</b>
Policy outcome (0-5 scale)	275	2.30	1.20	0.00	3.67
Domestic Container Shipping Interests (per cent of market)	275	12.05	22.61	0.00	154
Worker Rights (CIRI) (0-2 scale)	275	0.97	0.73	0.00	2
Political Institutions (Polity_2) (-10 - +10 scale)	275	5.71	6.22	-9.00	10.00
Executive Constraints (0-7 scale)	275	5.73	1.66	2.00	7.00
Military Economic Power (0-10 scale)	275	7.83	2.02	3.30	10.00
Capital Controls (0-10 scale)	275	4.35	3.12	0.00	9.20
Investment Rules (0-10 scale)	275	6.89	1.75	0.00	9.90
Property Rights (0-10 scale)	275	6.53	2.05	0.00	9.60
Foreign direct investment (per cent of GDP)	275	4.02	7.27	-3.54	92.67
Trade openness (per cent of GDP)	274	90.32	77.99	20.26	460.47
Economic development (GNIPC) (Current USD\$)	275	19,517	16,142	450	48,820
<b>Note 1: This is the second dataset, which includes the economic openness variables discussed.</b>					
<b>Note 2: Economic Development is converted to Log values in the regression models</b>					

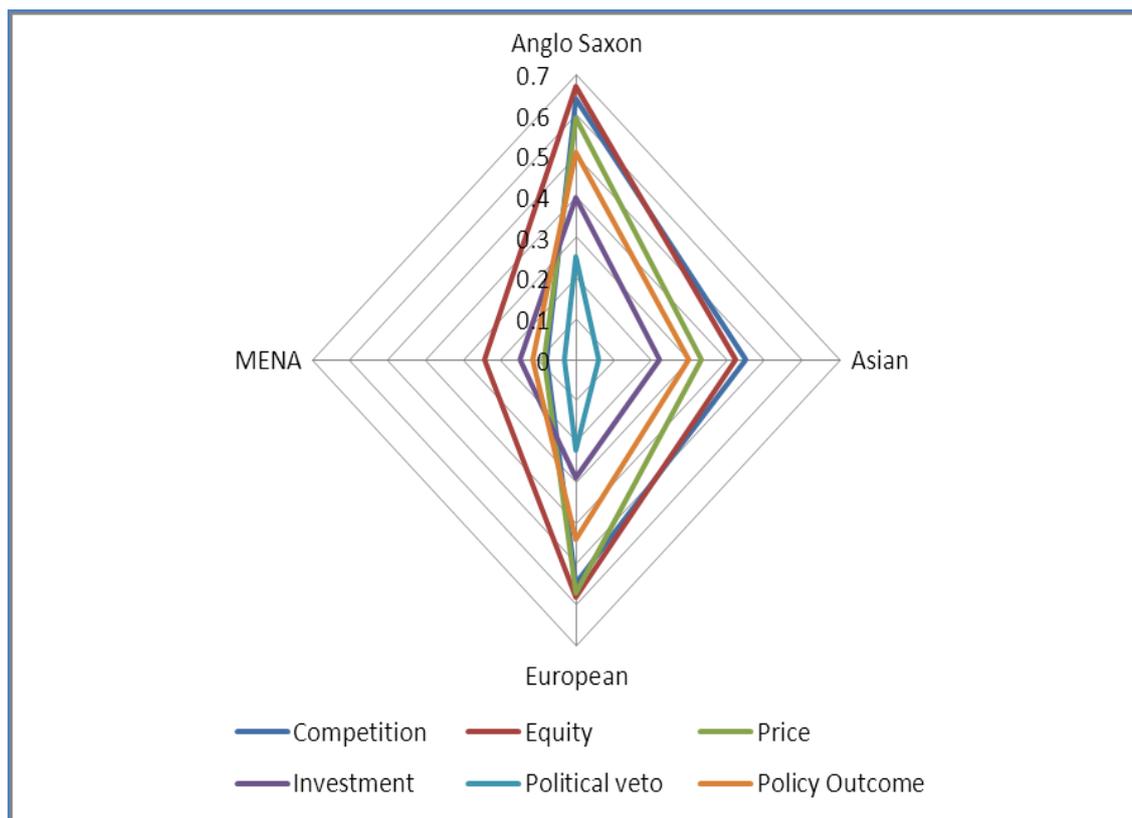
Following on the logic of institutional complementarity it follows that there may be a high degree of correlation between the independent and control variables. For example, in the longer dataset the main political institutional variables are interrelated with correlations of 0.95 but they remain of interest as they function in opposite directions. The neighbourhood variable correlates in the predicted model with the polity and executive constraints 0.75 and 0.74 respectively. This reflects the logical connection between shared economic and social histories and the importance of the political institutional variables in the models. This level of correlation may challenge, although not in any way uniquely in such research, the independence assumption in regression models and introduces an element of caution into the interpretation of regression results. There are a range of possible interactions and statistical treatments; however, more

sophisticated modelling will not add anything to the causal story, which is focussed on the explanatory power of interests and regional convergence. The model results validate the elements of the causal mechanism but it is in the casework that direct evidence is employed to identify the drivers and direction of the policy process.

### **5.2.5. Neighbourhood variable**

As discussed in the literature review in Chapter 2 there is a body of research in maritime economics on varieties of port governance models in terms of countries with similar economic and cultural histories (Bennathon and Walters, 1979; Lee and Flynn, 2011; Baltazar and Brooks, 2001, 2006; Ng and Pallis, 2010). This mirrors the neo-institutional literature in comparative political economy that references varieties of capitalisms (Amable, 2003; Amable and Palombarini, 2009; Hall and Soskice, 2001). The final hypothesis to be tested is that policy outcomes do converge on a normative range consistent with countries with similar economic philosophies. They are conceptualised here as neighbours and they largely reflect geographical proximity although sharing a colonial past is also posited as qualification for membership in the neighbourhood. Consistent with ports literature for country categorisation (Bennathon and Walters, 1979; Lee and Flynn, 2011) the key element of the normative categorisation is the institutional frame for public infrastructure investment. Countries tend to differ on the extent to which they invest in terms of cost recovery regimes and dilution of control. For example, Asian states are more likely to take a longer-term view on investment returns, and also include wider social and economic benefits in the benefits assessment. Another variation refers to political control where less democratic states are more likely to retain control over assets and project development rather than transfer any risk to the private sector. The groupings are based on assessments identified in the literature, described in Chapter 2, as reflecting economy wide social, economic and political contexts in nation states. Each country in the dataset is coded across the four proposed groups based on the theory described with the value of 1 for the highest expected outcomes (Anglo-Saxon) up to a value of 4 for the lowest expected policy outcome (MENA). Therefore, the higher the value for the neighbourhood cluster then the lower the expected outcome.

*Figure 5.1: Policy Outcome Variable Dimensions across Regional Groupings*



As with similar work on port typologies the groups are, with few exceptions, geographical. Figure 5.1 illustrates how these groups diverge across the five dimensions of the policy outcome metric. For example, the investment dimension shows Anglo-Saxon countries average 0.3 on a zero to one scale, while European countries average 0.2. Asian countries average just above 0.1 with MENA countries just below 0.1. In the case of pricing, on which powers Anglo-Saxon and European both average 0.6, while MENA countries are close to zero and Asians' average just over 0.2. Existing typologies base their analysis on both pricing and investment regimes (Bennathon and Walters, 1979; Lee and Flynn, 2011). Table 5.3 describes the mean value for policy outcomes, by neighbourhood category, across the two period datasets. The least change over time is in the Anglo-Saxon group with the other groups showing significant policy changes over time. In the later period the European category has a higher average value than its Anglo-Saxon counterpart. This highlights the particular effects of the United Kingdom and the United States. Neither has moved significantly over the period as detailed in the policy outcome discussion in Chapter 4.

**Table 5.3: Comparison of Policy Outcomes across Datasets**

Neighbourhood	Period 2000-2010		Period 1980-2010	
	N;	Mean; (Standard Deviation)	N;	Mean; (Standard Deviation)
Anglo-Saxon	55	2.58 (1.36)	155	2.55 (1.33)
European	77	2.71 (1.04)	217	2.21 (1.39)
Asian	99	2.31 (1.03)	155	1.49 (1.37)
MENA	44	1.19 (0.948)	155	0.58 (0.82)
<b>Totals/Average</b>	<b>275</b>	<b>2.30 (1.21)</b>	<b>806</b>	<b>1.71 (1.45)</b>

Note: Full variable statistics are in Tables 5.1 and 5.2

In the case of the USA the government at federal and state level remains interventionist in practice, which is not as expected in a market led economy, and the UK does not make significant changes in their intra-port competitive environment. Both these factors constrain the average value, while there are European units that move to greater market control through reformed investment, equity, and competitive regimes.

There is also a reasonable spread of observations across the country groups, which provides sufficient data points for regressions by country group. With policy outcome values across both datasets of 3.67 and a minimum of zero there remains a high degree of policy variance. Table 5.3 points to some convergence for European and Asian groups with Asia showing the highest level of change (1.49 to 2.31). The Anglo-Saxon model does not change materially and the standard deviation suggests a slightly wider dispersion in values. What is clear from the data is that when parsed to the five sub elements of the policy metric the reasons for changing values varies across region. For example, there are differences in the level of control states will transfer to the private sector over investments in Asia as against Europe consistent with their broader macro-economic models. They differ where state investment in public infrastructure is valued in terms of wider social gain over and above project viability; and in how state aid is deemed inappropriate in the EU.

### 5.3. Statistical models

The countries that make up the largest fifty container ports in 2007 are the basic units of analysis. They reflect the structure of the market before the trade downturn in 2008. There is some loss of units, as explained in Chapter 3, because of insufficient data coverage for the explanatory variables. The remaining countries over the thirty-one year period from 1980 provide a balanced panel dataset of 806 observations. In the second dataset Saudi Arabia is dropped, again because of insufficient coverage across the explanatory variables. The hypotheses are tested using simple ordinary least squares (OLS) regression, however the clear presence of serial correlation is accounted for using panel corrections and lagged variables. Time is a significant feature of public infrastructure policy making because of this infrequent change pattern and long project gestation periods, which differentiates it from other areas of privatisation studies.

The approach is to start with a general regression model, with fixed country effects, for the explanatory variables of interest. Control variables are added in subsequent models. These variables, based on solid theoretical reasoning, are added after a process of including them all in a working model, and then in stepwise fashion eliminating those that contribute no explanatory power to the model. This dictates the variables included. The models tested are designed to unpick the dynamic nature of the process, and tests how the variables survive statistical treatments as much as their value as predictors of policy. This is a distinct modelling objective appropriate to a nested, complex, and interactive process. It is a useful strategy to capture the temporal dynamics of policy formation in comparative political economy (Keele and Kelly, 2005:188). Thus, the substantive inferences and statistical significance of the point estimates for theorised explanatory variables appear in the early models. The path dependent logic of past policy, in the form of lagged variables, influencing later outcomes appears in later models..

Because there is a significant time trend in the data the modelling advices for such within panel correlation over time is applied in additional models. These consist of first time lagging independent and control variables; second by modelling with panel corrected standard errors (Beck and Katz, 2001), and third by including a lagged dependent variable. The goal is to identify the role of interests in policy formation and the tendency to change based on institutional memory, consistent with path dependence theory.

The initial models employ OLS with fixed country effects. The second set of models employ OLS with panel corrected standard errors. This specification is consistent with similar work in the privatisation of infrastructure literature. For linear regression to be optimal with time series cross section data (TSCS), Beck and Katz (1995: 636) argue that it is “necessary to assume that all the error processes have the same variance (homoscedasticity) and that all the error processes are independent of each other”. The latter assumption can be divided into serial and spatial correlation of the errors. In the case of panel heteroskedasticity and the latter case of spatial (or contemporaneous) correlation, using OLS with panel corrected standard errors is proposed by Beck and Katz; however this only applies if serial correlation is removed first (1995: 638). The obvious trending of the dependent variable (as illustrated by the very high correlation of the dependent variable with a one year lag of itself at 0.98); and the nature of the macroeconomic variables suggest the need to transform the auto correlation using one year lags. The basic Time Series Cross Section (TSCS) econometric model is summarised in formula 1.

$$Y_{it} = \alpha_i + \beta_1 X_{it} + \beta_2 C_{it} + \epsilon_{it} \quad (1)$$

Y is a continuous variable representing the dependent variable of privatisation policy. The sub-scripts *i* and *t* represent country and year respectively. The explanatory variable vector is represented as X while the control variables are represented by variable vector C. The error term  $\epsilon$  includes dispersion in the estimated values and any missing variables excluded from the model. All the variables used are continuous. The vector of control variables includes measures for political institutions, and macro-economic context. The full model is described in formula 2.

$$Y_{it} = \alpha_i + \beta_1 SHIP_{it} + \beta_2 WORKERS_{it} + \beta_3 POLITY_{it} + \beta_4 CONSTRAINTS_{it} + \beta_5 TRADE_{it} + \beta_6 FDI_{it} + \beta_7 GNIPC_{it} + \epsilon_{it} \quad (2)$$

The data for the period 2000 to 2010 are tested with the addition of four economic institutional variables and the full model is described in formula 3.

$$Y_{it} = \alpha_i + \beta_1 SHIP_{it} + \beta_2 WORKERS_{it} + \beta_3 POLITY_{it} + \beta_4 CONSTRAINTS_{it} + \beta_5 TRADE_{it} + \beta_6 FDI_{it} + \beta_7 GNIPC_{it} + \beta_8 MILITARY + \beta_9 CAPITAL_{it} + \beta_{10} INVESTMENT_{it} + \beta_{11} PROPERTY_{it} + \epsilon_{it} \quad (3)$$

A number of alternative measures for the economic, interdependence and institutional control variables were tested without any improvement in results. These included values for left and right executive configurations. Similarly, using log values for the economic variables do not substantively change the results. It is also possible that there are variables missing from the models that, if specified rather than implied in the error term, would provide a more comprehensive result. The continuous variables included reflect data available for the countries selected; or rather missing variables reflect the limited availability of data for some of the countries outside of developed country datasets. The model does meet the objectives set as it tests the new dependent variable against interests as a partial explanation, while controlled for the variable groups' common in the literature; and is consistent with the causal story. While it is not possible to state that all explanatory variables are included, the model specifications include those that ought to be influential based on relevant literature, interviews for this project and my own experience as a port manager. Missing variables are Therefore, included in the error term. Ordinary least squares regression is used, in common with many time series models in the comparative economic literature, as a basis to test the statistical relationships in the container port data.

Three modelling scenarios are used. First, the two interest based hypotheses (H1, H2) are tested on the full time series data for 1980 to 2010. The same hypotheses are then tested on a dataset for the period 2000 to 2010. In this latter set of models more recent variables for economic context are introduced as they form the theoretical foundation for country policy clusters. The purpose is to identify any relationships between the elements of the economic institutional variables and the resultant policy. The second advantage to testing the shorter dataset is that changes in variable relationships might be a result of dynamic effects. The third modelling scenario directly tests the neighbourhood or cluster hypothesis (H3). It employs OLS regression again and an absorption command to allow for common effects among the country groupings.

The models in the first scenario are intended to highlight the marginal impacts of particular variables, as serial correlation is removed. Model 1 is the base model with the

hypothesised explanatory variables. Model 2 tests the impact of democratic institutions on policy outcomes. In Model 3, the role of economic development levels is included in its log form along with the lagged variant of the dependent variables (Beck and Katz, 1995; Beck et al, 1998). Models 1 to 3 use an OLS regression of a time series cross section dataset. The second set of models use an OLS regression with an adjustment for standard error calculation. From Model 4 onwards the political institutions variable is parsed into two constituent parts of interest that is levels of democracy and constraints on executive decision-making. This tests conventional policymaking theory and highlights the impact of veto points. Economic context variables are included as values lagged by one year as a more realistic representation of the change process.

The second scenario models follow the same logic of OLS regression with fixed effects and with panel corrected standard errors. They equally introduce additional variables and dynamic treatments including a lagged dependent variable. Theoretically, a difference can be expected based on the logic that privatisation is more commonplace in the final decade of the study rather than the averaging of values across the three decades.

The final scenario runs the same tests across a 5-year panel version of the data, collapsed into four panels from 1995 to 2010. This is accomplished by averaging the values for each panel period.

#### **5.4. Results**

Table 5.4 records the model results using STATA 10 for the pooled data covering the period 1980 to 2010. Model 1 shows a substantive and significant relationship between the capacity of labour to resist and the policy outcome. The minus sign matches the theorised causal direction. However, the explanatory power of this base general model is low with only nine percent of variances explained. Model 2 shows a strong improvement in the explanatory power to twenty-seven percent driven by the inclusion of the political institutions variable. Labour improves in substantive terms also. However, only economic development survives the treatment for past policy as a variable that may have a short run impact. In the panel corrected versions the labour institutional variable is again significant. Domestic shipping interests are also significant but in no sense significant. Model 5 is the most interesting with a high level of explanatory power and statistically significant variables. The adjusted  $R^2$  is a very

high score suggesting that the model explains seventy-six plus per cent of the variance in policy outcomes. This must be tempered with the knowledge that there is a significant correlation in the slow moving data between policy outcomes in time  $t$  and those in time  $t-1$ . Therefore,, a large proportion of the good fit can be explained by serial correlation.

Applying time lag treatments and by including the dependent variable from  $t-1$  in the model raises the adjusted  $R^2$  to almost perfect levels, which does not fit with observations in the real world. Nonetheless the resilience of the explanatory variable through some of the treatments is of interest and sufficient to say that domestic factors, acting through interest representation, are relevant to any explanation of cross-national policy variance. As described earlier in this chapter and in the methodological Chapter 3, the strategy is to establish the relevance of domestic interests, as institutional capacity, and examine key countries as case studies to further explore the statistical inferences from the modelling. All variables are statistically significant before the final treatment of the lagged dependent variable is applied. These hypotheses may benefit from multi-level models with improved data may yield improved results; however the relative research costs are high and the more efficient research option is to examine country cases for supporting evidence.

What is of value is the causal direction implied in the results for the explanatory variables. First, both higher levels of domestic capital and labour representation predict lower policy outcomes as indicated by the linear coefficients. The control variables, which are essentially a representation of economic and political contexts, are statistically significant before the dependent variable lag treatment. Political institutions are also substantive. The significant reduction in their coefficient values on introducing last year's policy indicates a level of statistical interaction where last year's value is a function of the same institutional values.

The economic performance values are always difficult to interpret. For example, a rise in FDI might result in a policy response to open port governance to greater private participation. Equally, a rise in private sector participation in port governance might result in higher levels of FDI. Similar arguments apply to trade openness and economic development.

**Table 5.4: Linear Regression TSCS Data 1980 to 2010**

<i>Time series cross section data 1980 – 2010</i>						
<i>Variables</i>	<i>Fixed effects</i>			<i>Panel corrected standard errors</i>		
	<i>General Model (1)</i>	<i>With Polity value (2)</i>	<i>With lagged dependent variable (3)</i>	<i>TSCS Model (4)</i>	<i>With lagged economic performance (5)</i>	<i>With lagged dependent variable (6)</i>
<b>Lagged dependent variable</b>			0.886 (0.016)***			0.972 (0.012)***
<i>Domestic interests</i>						
Domestic shipping interests	-0.006 (0.002)***	-0.004 (0.002)+	0.002 (0.001)**	-0.010 (0.002)***	-0.010 (0.002)***	0.000 (0.000)
Worker Rights (CIRI)	-0.306 (0.059)***	-0.349 (0.053)***	-0.014 (0.020)	-0.149 (0.089)+	-0.172 (0.084)**	-0.017 (0.016)
<i>Political institutions</i>						
Institutions (Polity)		0.145 (0.011)***	0.017 (0.004)***	0.16 (0.012)***	0.157 (0.011)***	-0.002 (0.004)
Executive Constraints				-0.215 (0.041)***	-0.224 (0.045)***	0.021 (0.011)+
<i>Economy</i>						
Economic Development (Log GNIPC)			0.102 (0.024)***	0.289 (0.019)***	0.312 (0.022)***	-0.000 (0.007)
Trade openness					-0.003 (0.0001)***	0.000 (0.000)
Foreign Direct Investment					0.037 (0.009)***	0.001 (0.001)
Constant	2.16 (0.075)***	1.55 (0.082)***	-0.74 (0.205)***			
Number of observations	779	779	779	779	778	778
Number of countries	26	26	26	26	26	26
R-squared	0.09	0.27	0.953	0.756	0.763	0.986

*Standard errors in parentheses + p<0.10, \*\* p<0.05, \*\*\* p<0.01*

While the results from the tests on the larger longitudinal data are noteworthy across the hypotheses the slow moving nature of implemented policy reform in port governance, and in other public infrastructure, tempers the statistical value somewhat. In theoretical terms, however the results are in line with expectations.

In order to test the hypotheses further with additional controls and additional constructions to control for serial correlation a second dataset is used. It covers the period 2000 to 2010, a period of eleven years. This period is shorter than recommended by Beck and Katz (1995), but not necessarily invalid, for panel corrected standard

errors. The number of units remains quite high at twenty-five (Beck and Katz, 1995). Table 5.5 records the second set of model results. The models are the same as in the larger dataset.

Worker rights, while significant, act in the expected direction in the fixed effects model but suggest the opposite causal direction than panel corrected models. The later models also show a stronger impact for political institutions and economic development. In substantive effect, political institutions are strongest and have higher values for this final decade over those across the three decades studied. What is of particular note is the impact of economic development in this period on policy outcomes. The higher the average shares of national income per capita then the greater the role of the private sector in container ports. A change of one unit in income per capita will change port policy by 0.45 in model 5, with average policy values for the period at 2.30. This is a larger value than in the longer study with a coefficient of 0.31 on an average policy outcome of 1.71. Thus the more prosperous the nation the more the private sector is involved.

Of course, the opposite may also be true with greater privatisation driving up national income. This is of interest to maritime economists who largely focus on port performance and where most argue that the private sector will improve performance (Cullinane and Song, 2002). It is also consistent with political theories of globalisation, such as modernisation. However, these data are insufficient to suggest causation. They do, along with the results for other control variables point to the significant role for political context with little apparent support for theoretically relevant economic institutions. The only economic freedoms variables that affect the model are capital controls but not in the causal direction expected. It suggests that, as capital controls become more (international) market friendly the scale of reform will be marginally lower. The opposite causal direction may also be true.

**Table 5.5: Linear Regression Analysis TSCS Data 2000 to 2010**

<i>Time series cross section data 2000 – 2010</i>						
<i>Variables</i>	<i>Fixed effects</i>			<i>Panel corrected standard errors</i>		
	<i>General Model (1)</i>	<i>With Polity value (2)</i>	<i>With lagged dependent variable (3)</i>	<i>With lagged economic development (4)</i>	<i>With economic institutions (5)</i>	<i>With lagged dependent variable (6)</i>
<b>Lagged dependent variable</b>			0.761 (0.041)***			0.967 (0.015)***
<b>Domestic interests</b>						
Domestic shipping interests	0.004 (0.002)+	0.004 (0.002)+	0.001 (0.001)	-0.008 (0.003)***	-0.007 (0.003)***	0.001 (0.001)
Worker Rights (CIRI)	-0.162 (0.059)***	-0.165 (0.059)***	0.05 (0.039)	0.206 (0.083)**	0.333 (0.101)***	0.045 (0.028)
<b>Political institutions</b>						
Institutions (Polity)		0.036 (0.021)+	-0.003 (0.012)	0.095 (0.013)***	0.115 (0.016)***	-0.005 (0.005)
Executive Constraints				-0.246 (0.028)***	-0.369 (0.061)***	-0.005 (0.017)
<b>Economy</b>						
Economic Development (Log GNIPC)			0.104 (0.052)**	0.349 (0.018)***	0.449 (0.032)***	0.009 (0.014)
Trade openness				-0.002 (0.000)***	-0.002 (0.001)***	0.000 (0.000)
Foreign Direct Investment				0.012 (0.005)**	0.016 (0.006)***	-0.002 (0.001)
<b>Economic Freedoms</b>						
Military power					0.027 (0.029)	-0.001 (0.013)
Capital controls					-0.078 (0.016)***	-0.003 (0.007)
Investment rules					0.003 (0.046)	0.020 (0.015)
Property Rights					-0.052 (0.042)	-0.009 (0.012)
Constant	2.40 (0.071)***	2.20 (0.138)***	-0.418 (0.467)			
Number of observations	275	275	250	275	250	250
Number of countries	25	25	25	25	25	25
R-squared	0.08	0.03	0.947	0.836	0.846	0.994

*Standard errors in parentheses + p<0.10, \*\* p<0.05, \*\*\* p<0.01*

To complete the testing of the hypotheses and to control for the impact of past policy on new policy a third dataset is constructed. This is made up of four panels for the five-year periods: 1991-1995, 1996-2000, 2001-2005, and 2006-2010. Data, including economic freedom data, is available for all data points. This also affords the opportunity to use an alternative modelling approach of OLS regression with neighbourhood effects absorbed, in similar fashion as fixed effects modelling across the country units. With this approach, the number of observations is again lower for this non-random dataset. However, the domination of past policy present in other models is to some extent averaged out.

Model 3 in Table 5.6, with all explanatory and control variables lagged by one year, shows similar patterns to earlier results. They are however different in their substantive effect. Domestic capital and labour factors continue to indicate that they constrain the scale of policy reform and thus private participation of port governance. The worker rights variable, with a coefficient of -0.63, is noteworthy and supports the dock labour hypothesis. However, the political institutional context has the stronger impact. A new and substantive contribution to the analysis is the impact of military power on policy outcomes. The less the military can influence the economy then the more private sector involvement we will observe in port governance. All the results are after absorbing the impact of the neighbourhood fixed effects.

It is interesting that the substantive effect of political institutions and economic development decline in this set of models as the fixed effects from the clusters of similar countries absorb their effects. This is supportive of the neighbourhood hypothesis. This model is also strongly supportive of the labour resistance hypothesis.

**Table 5.6: Linear Regression Analysis of 5-year Panels 1995 to 2010**

<i>Variables</i>	<i>Variables with economic time lags (1)</i>	<i>(1) with lagged economic variable (2)</i>	<i>(2) with lagged independent variables (3)</i>
<b><i>Domestic interests</i></b>			
Domestic shipping interests	-0.013 (0.006)**	-0.018 (0.006)***	-0.028 (0.008)***
Worker Rights (CIRI)	-0.179 (0.278)	-0.421 (0.301)	-0.629 (0.276)**
<b><i>Political institutions</i></b>			
Institutions (Polity)	0.130 (0.093)	0.226 (0.099)**	0.357 (0.114)***
Executive Constraints	-0.428 (0.335)	-0.804 (0.369)**	-1.167 (0.411)***
<b><i>Economic freedoms</i></b>			
Military power in economy		0.234 (0.132)+	0.239 (0.121)+
Capital controls		0.118 (0.065)+	0.067 (0.058)
Investment rules		-0.143 (0.125)	-0.172 (0.115)
Property rights		0.152 (0.187)	0.108 (0.173)
<b><i>Economy</i></b>			
Foreign Direct Investment	0.063 (0.036)+	0.074 (0.036)**	0.064 (0.034)+
Trade openness	-0.007 (0.003)**	-0.010 (0.003)***	-0.010 (0.003)***
Economic Development (Log GNIPC)	0.465 (0.125)***	0.069 (0.194)	0.112 (0.175)
Number of observations	73	71	69
Number of clusters	4	4	4
Adjusted R-squared	0.286	0.312	0.384

*Standard errors in parentheses + p<0.10, \*\* p<0.05, \*\*\* p<0.01*

## 5.5. Discussion of results

The hypotheses set out at the beginning of the chapter argued that dock labour will constrain private participation in port governance; that domestic capital will also constrain change where they are a significant force in the domestic shipping market; and that policy outcomes will converge for countries with similar economic and political contexts. Data was collected for a thirty-one year period across twenty-six countries. A new continuous variable, on a zero to five scale, to measure policy outcomes for private

participation in port governance in terms of competition, equity shares, pricing control, infrastructure investments, and political project veto is employed. A new variable for domestic shipping interests is also employed. The hypotheses are tested in three datasets thus facilitating the introduction of control variables consistent with existing privatisation literature and the causal theory set out in Chapter 2. The three iterations also facilitate various treatments to control for within panel serial correlation given the slow moving nature of the data. Policy changes per unit average just under one per decade.

The dock labour hypothesis is supported in the longer TSCS data and in the shorter 5-year panel data. The causal direction is negative indicating that where labour is free to function the more likely they are to constrain policy outcomes. This is an economy wide test and dock labour literature suggests that they are more militant than the average industry group (Turnbull, 2000). A more interesting measure would interact capacity with levels of activism, and this is explored in the case studies to follow. The data for the period 2000 to 2010 does not give the same result suggesting that in more recent times the power of labour is waning. This is consistent with theories of globalisation. The models do not provide a means to test for the role of labour in delaying or in modifying policy proposals as the dependent variable is based on the actual observed governance model. Therefore, qualitative evidence, to explore this hypothesis further, is presented in Chapter 6.

The domestic capital hypothesis is also supported in the data across all versions. The effect is not substantive. The theoretical difficulty here is that this relationship is not likely to be linear with the interests of domestic capital changing over time. In modern ports systems domestic shipping tends to be absorbed into the multi-national market and become less protectionist. This is not a completed process with countries such as Indonesia maintaining cabotage systems. The results are consistent with work on trade theory that showed domestic capital behaving in a protectionist fashion in certain phases of globalisation (Henisz and Zelner 2006:267).

The third hypothesis, which develops earlier theories of country clusters for port governance models, is also supported by the data results. It is likely that further subdivisions, such as the categorisation proposed by Verhoevan (2010a) would improve the results however this would be at the expense of parsimony in this political analysis.

The clusters are differentiated on the basis of group norms of behaviour for public goods, the scale and period for investment returns, and state management in the port market. This is in line with other research that highlights policy implementation asymmetries across divergent institutional frameworks (Ng and Pallis, 2010)

Beyond the stated hypotheses, other explanations that arose during the research and in interviews described in the following chapter suggested that investors would not get involved in an industry where the military are present. The panel version of the data, which absorbs the cluster variable in a linear regression, lends some support for this argument.

Financial crisis is also proffered in some literature as an explanation for transfers to the private sector. Using the long form of the data (1980 to 2010), those countries with negative growth during the period are identified along with the number of years in decline. The financial crisis test assumes that at least three years of negative growth may have an impact on policy choice in long-term economic infrastructure. Saudi Arabia and South Africa are the countries with sustained multi annual decline and the latter is taken as a case study in Chapter 6. There is no evidence in these data of financial crisis being associated with policy change in port governance. One explanation may be that port reform projects cover a long time period and while reform may be on the agenda during a crisis, they may not come to fruition as the economy recovers.

Across all the data versions and testing models, the role of domestic political institutions is substantive. Executive constraints when higher will lower policy outcomes. This is not quite the theoretical purpose of the variable, which is more concerned with change events rather than the degree of change. Equally, the greater the level of democratic institutions the more likely the level of privatisation will rise. There are two points of interest here. First, is the support for the standard structural hypotheses in the privatisation literature; and second, they validate the new dependent variable. As variables, they are highly correlated and executive constraints are included in the political institutional measure. Nonetheless, there is value in exploring mainstream theory for privatisation outcomes and policy changes in the models and in seeing that they operate in opposite directions.

The following case studies will further examine the evidence to support the hypotheses through elite interviews, newspaper coverage, and peer reviewed casework in the maritime economic literature. The material gathered from each port, when producing the dependent variable data augments this. The data analysis has demonstrated that there are significant patterns between relevant institutional variables consistent with theories of policy change. The models reflect a rational ontology and structural realism epistemology where political institutions mediate in social spaces to arrive at an outcome that maintains or increases incumbent support. This approach does add value however; it is methodologically limited to showing that complementary institutions and the conditioning influence of domestic economic circumstances have value as predictors of policy outcomes in public infrastructure. Taking the findings from this quantitative analysis and studying specific state behaviour through documents and interviews will provide greater empirical support for the stated hypotheses.

## Chapter 6: Comparative perspective on ports policy

The research design sets out a three part agenda based on a process analysis methodology. This form of process tracing has specific evidential targets and results in an analytical narrative that will add to the data modelling results in Chapter 5. There are three purposes to the narrative account of policy changes and variety in the international container port sector. First, an inductive study of deviant cases will be useful in identifying additional explanation for incongruent outcomes; and in identifying alternative explanations that do not relate to the hypotheses. It also provides additional evidence to support further development of the proposed theory of change (George and Bennett, 2005:239). A separate narrative for the United Kingdom, South Africa, and Indonesia are presented below. While the objective is to explain deviance from the expected outcome, evidence of labour resistance and regional convergence are included where appropriate. There then follows two thematic accounts for labour resistance and regional convergence drawing on evidence from additional countries in the dataset. The evidence includes primary documents sourced for all countries, and interviews from Indonesia. The objective of this qualitative chapter is to supplement the results in the data modelling. The data results includes evidence that past policy frames, domestic politics, interest groups like dock labour, and regional similarities are statistically significant in a number of models.

This chapter builds on the patterns in the data drawn from available datasets; and by means of document analysis, and interviews with process participants, presents an analytical narrative of policy inertia and change. Descriptive data of the policy position at the end of the period under review are used to illustrate the relationships between complementary institutions and port policy outcomes. Specifically support for labour resistance is presented along with evidence of path dependent institutional packages that constrain outcomes. On the contra side, cases that have evidence of systemic forces at work, such as economy wide ideological projects, financial crisis, and security influences, are examined. The presentation is both thematic and by country. The theoretical review in Chapter 2 and the quantitative analysis in Chapter 5 do provide an account of institutional context and interaction within a path dependence narrative of policy change. The data analysis also show support for the argument that maritime countries do cluster around common policy trajectories, theorised as regional convergence, based on similar historical and social contexts. The key objective is to find

out why countries differ or converge in systematic ways. This explores further the possibility of complex interactive causal pathways in policymaking; and explicitly accounts for the role dominant beliefs have in policy formation for traditional public services.

The chapter proceeds by describing the scope of the document search, interviews and field testing, used as evidence in the chapter. Analytical narratives from the three deviant cases follow, before an account of labour resistance across a number of states. The accumulated evidence is then applied to testing the country typology for port governance followed by a discussion of the key findings.

### **6.1. Evidence gathering**

The quantitative analysis primarily tested the argument that domestic interest groups have an impact on privatisation policy outcomes in the international container market. Second, it tested the argument that policy outcomes converge into particular regional groupings. The remaining variables in the models represented economic and political institutional profiles pertinent to public infrastructure policy to test path dependent arguments. The models employed found some evidence to support the arguments that interest groups capacity is important in policy coordination; and that regional clustering is likely to account for some policy outcomes. The results are qualified by the nature of the country sample, the time period and the range of complex interactions implied in the modelling results. The quantitative analysis fails to capture qualitative factors, because of data deficits in cross-national datasets, which may influence preferences such as dominant national beliefs about the role of the state in public infrastructure (Henisz and Zelner 2006). The testing also presumes that causality is unidirectional thus ignoring the possibility that interest groups, such as domestic shipping, may lobby for or against privatisation depending on dominant national economic beliefs. Because the quantitative analysis presumes material self-interest and power as explanatory variables, they largely ignore the political and social context for each country. This “renders problematic a methodological approach that exogenizes preference formation when attributing policy outcomes to the resistance and pressure of stakeholders, especially stakeholders who simplistically pursue their self-evident objective interest.” (Appel 2000:524).

The discussion thus far, Chapters 2 and 3, has characterised port institutional change as a process that operates at an operational level in the economy and is Therefore, a function of pragmatic policy making and political support maintenance. One privatisation typology categorises political motivation, as evidenced through high-level discourse, as ranging from pragmatic to systemic (Feigenbaum and Henig, 1994). A similar management theory employs a heuristic device to categorise how business decisions are debated (Etzioni, 1964). Figure 6.1 adapts both typologies in order to differentiate between different policy contexts. This can be contrasted constructively with path dependency theories that employ the concept of policy levels to differentiate between policy process contexts. The schematic is a practical research tool rather than a theoretical proposition, providing a controlled approach to interpreting texts. In addition, by broadening the discussion to allow for economy wide systemic discourse, alternative theories of change for the sector can be examined.

**Figure 6.1: Privatisation Policy Debate**

Nature of Debate		Political Motivation		
		Pragmatic	Tactical	Systemic
Normative				
Remunerative			States OR Markets	
Coercive				

Notes:  
 1 -The nature of the debate is adapted from organisation theory on how managers will frame a change initiative (Etzioni 1964)  
 2 -Political motivation is adapted from a privatisation typology (Feigenbaum and Henig 1994)

Equally framing the systemic character of the discussion with management theories of change suggests that such policy reform can also be coercive. The United Kingdom, the policy leader for ports, is the prime example of labour coercion, and will be described in detail later in this chapter.

Where port privatisation is framed as part of a broader political project then the level of change may be greater than otherwise expected, for example the United Kingdom. This

does not reject the path dependency hypotheses as the nature of the changes will continue to reflect past decisions directly for ports and in complementary policies. Equally, policy inertia may occur where otherwise the expectations would be higher. This will be examined further in the case analysis of South Africa and Indonesia. The systemic dynamics typical in the sector are economy wide liberalisation, financial crisis, security concerns and aid conditionality. Thus, the explanation for policy variance modelled in Chapter 5 is extended through qualitative work to account for higher-level policy influences, where they occur.

A measure of economic freedom is used as a proxy for past economic policy preferences. This approach shows the extent to which relevant domestic institutions are open to private sector participation in the container port market. The data are described in greater detail here and are converted to a composite value. The source of the data, the Fraser Institute, maintains a dataset of forty-two indices, compiled from sources such as the International Monetary Fund, World Bank, and World Economic Forum, which measure economic freedoms (EFW<sup>24</sup>). They present a summary index intended to score the extent to which business can function in a particular country. There are five components to the composite index: size of government; the legal system and property rights; protections on capital movements and value; freedom to trade internationally; and business regulation. Table 6.1 sets out values of variables that are of specific relevance to a port infrastructure investment context. The intent is to descriptively account for the environment in which the private sector will respond to a port policy initiative. Although a government department may issue a call for tenders to the private sector to participate in a port development project, as operators or shareholders, the decision taken by the private sector will also reflect an assessment of the broader institutional context<sup>25</sup>. Thus the variables selected provide an institutional metric covering the scale of the State Sector in the economy, the influence of the military, management control over labour, investment and ownership rules, and matching capital controls. The labour variable is in contrast to the worker freedom metric used in the data modeling in Chapter 5. The one employed here refers to the freedom of capital to manage labour. The variables are largely from externally available objective metrics and dependence on surveys is minimized (Gwartney et al, 2013). The EFW variables are

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<sup>24</sup> Data was downloaded using free software available at <http://www.freetheworld.com/>

<sup>25</sup> This conclusion is drawn from the author's participation in due diligence assessments for port investment projects in India and Indonesia; between 2005 and 2010. The due diligence methodology was consistent with industry standards.

scored from zero to ten, with ten representing the highest degree of market freedoms. For example, China has a score of 5 in the state owned enterprise category, reflecting the political and market power of state owned and controlled business in the economy.

**Table 6.1: Economic Institutions and Capitalism**

Countries	Port Model	SOE	Military	Labour	FDI Rules	Capital controls	New Index	Polity '05
Australia	3.27	8.5	9.9	6.8	8.1	3.7	7.9	10
Belgium	3.27	9.0	9.6	6.0	8.5	7.1	8.2	10
Brazil	3.27	8.0	6.4	4.6	6.8	2.5	6.6	8
Canada	3.60	9.5	9.8	7.6	8.1	7.6	8.7	10
China	3.51	0.5	6.2	5.0	5.6	1.7	2.7	-7
Egypt	1.67	1.0	5.1	4.9	7.4	5.3	3.2	-3
France	3.60	6.0	8.6	4.9	8.0	5.9	6.5	9
Germany	1.15	8.0	10.0	4.0	8.4	6.7	7.6	10
India	1.87	4.8	6.2	6.9	5.6	0.0	4.7	9
Indonesia	0.56	7.0	3.7	4.7	7.5	1.1	6.0	8
Italy	2.27	6.5	9.9	5.0	6.9	7.6	6.6	10
Japan	3.27	7.5	9.0	7.7	7.2	7.0	7.4	10
Korea	2.93	7.0	7.1	4.5	5.8	3.6	6.3	8
Malaysia	3.03	3.0	8.2	7.5	7.2	1.7	4.5	3
Netherlands	3.27	8.8	10.0	5.7	8.6	9.2	8.4	10
Oman	2.21	0.0	8.4	8.8	6.3	5.3	2.5	-8
Philippines	2.93	7.5	6.1	6.2	7.2	1.9	6.5	8
Saudi Arabia	1.53	0.0	2.1	8.0	7.0	1.5	0.8	-10
Singapore	2.02	7.5	9.2	6.8	8.9	7.1	7.9	-2
South Africa	0.00	6.5	7.5	6.0	6.8	1.1	6.0	9
Spain	3.60	7.0	8.2	4.5	7.9	5.3	6.8	10
Sri Lanka	0.98	5.8	3.0	6.3	6.5	0.5	5.0	5
Thailand	2.87	6.3	6.4	5.2	6.8	1.6	5.8	9
UAE	0.37	2.0	8.4	8.0	6.7	5.8	3.6	-8
UK	3.67	8.5	9.7	7.7	8.8	8.8	8.5	10
USA	2.53	7.8	8.2	8.2	8.0	6.2	7.8	10
<b>Averages</b>	<b>2.43</b>	<b>5.91</b>	<b>7.55</b>	<b>6.20</b>	<b>7.32</b>	<b>4.45</b>	<b>6.02</b>	<b>5.31</b>

Sources: The Port Model variable is the policy outcome value as at 2010 and is taken from the dataset compiled by the Author from original data described by region in Chapter 4. The Polity variable values are drawn from the Quality of Governance dataset (2013: <http://www.qog.pol.gu.se/data/>). The remaining variables are taken from the Fraser Institute Economic Freedom dataset (Gwartney et al 2013; [www.freetheworld.com](http://www.freetheworld.com))

Trade growth does not depend only on eliminating tariffs (UNCTAD, 2009). The provision of transport infrastructure, free movement of capital and people, and a reliable legal and security framework are all essential parts of the trading process. Variance in policies that define the role of the market in port service provision may in part be

explained by metrics that chart the institutional structure in a state in terms of trade facilitation. This structure in turn will reflect the history and economic culture of each state. Therefore, the data in Table 6.1 will be used to explore the evidence in favour of the regional convergence hypothesis.

There are four categories of evidence used in this analysis covering the period 1990 to 2012. It is not possible to search further back in the archives with any degree of reliability or comparative consistency, primarily because of limited access for earlier periods. First, recognised industry literature was gathered direct from the subscription based archives of Containerisation International and Port Strategy journals. The former journal is a key container industry source and widely circulated. The latter is targeted on a smaller port management audience but a credible source for strategic issues and news in the sector. Containerisation International is also the provider of the data used to construct the dependent variable and the selected country dataset. Second, newspaper archives available through Lexus-Nexus were examined using search strings consistent with the industry literature search. This was complemented by direct searches of the English language newspapers in Indonesia, the Jakarta Globe, and the Jakarta Post, to support the analysis of the Indonesian case. The common search strings included ‘port privatisation’, ‘port privatization’, ‘labour’, ‘labor’, ‘strike’, ‘union’, and finally the country names from the original dependent variable dataset. Table 6.2 charts the source and number of articles selected for analysis.

**Table 6.2: Documents Reviewed**

<b>Source</b>	<b>No.</b>
Containerisation International	298
English Language newspapers (Lexus-Nexus)	25
Port Strategy journal	30
Indonesia Press	26

The opportunity for a number of site visits to Indonesia was availed of. They included time on site as a port management instructor with Pelindo, the state owned port company in Indonesia. The sponsor for the training programme is Irish Aid, the development arm of the Irish Government. The provider and manager of the training

programme is UNCTAD. With the consent of the parties, discussions on port privatisation and the new Shipping Law (17, 2008) were possible. This is supplemented with project time in Jakarta and Banda Aceh ports during 2005 to 2010. Senior policy makers and private sector political communications participants provided invaluable insights during informal discussions in November 2012. They include a political lobbyist for the new legislation, and the senior official in the ports division of the maritime department. Finally, primary documents such as reports, legislation, and regulations were examined for the United Kingdom and Indonesia to support conclusions drawn. This was further complemented by country case studies available in peer reviewed maritime economics journals.

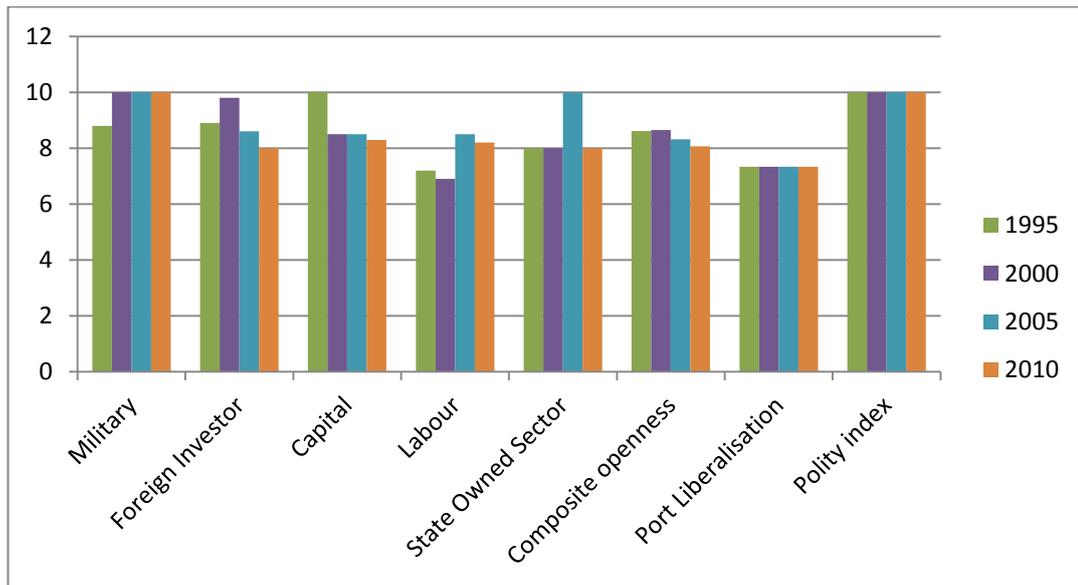
## **6.2. Case Analysis**

### **6.2.1. United Kingdom**

The United Kingdom case is important to this research for a number of reasons. It represents the highest value in the policy outcome data reflecting the extensive nature of major port liberalisation. The reform itself was economy wide thus providing an additional accelerant to overcome political resistance and path dependent policy inertia. Details of port policy history are well documented and accessible; thus providing an account of institutional development that was in all likelihood observed intently by the countries in these data. The United Kingdom is a prime mover in the Anglo-Saxon market coordinated grouping. This study will therefore, set out the findings from the document research, including providing an account of how political institutions evolved during the period.

Figure 6.2 charts the institutional framework for the United Kingdom port sector. As expected the values are all high indicating an open economy and a high level of port liberalisation. Port liberalisation is constrained by the nature of the privatisation process where complete ports were sold to the private sector. The corollary of this is that intra port competition is unlikely, which represents one fifth of the policy outcome metric. Uniquely however this is balanced somewhat by the high level of power transfer under the political veto and investment dimensions.

*Figure 6.2: United Kingdom Political and Economic Institutions*



Tracing the historical development of port governance and dock labour institutions in the United Kingdom produces an instructive view of the critical events that define the global regimes of today. The dynamics of the policy process see governments proposing a privatisation policy that may already incorporate labour friendly modifications or that may be followed by protest and resistance to the proposed policy. In the case of the United Kingdom, labour resistance was significant. “The stated intention of Thatcher’s policy was to improve economic efficiency, but the Conservative party was hardly oblivious to the possibility that it would weaken organised labour and thus change the political game” (Feigenbaum and Henig, 1997:341).

The UK port industry is the largest in Europe and, according to the British Ports Association (BPA) handled 500 million tonnes in 2012. Much of what happened in the United Kingdom was repeated elsewhere to some degree. The point of interest is that this reform process went further than anywhere else did so far. It is reasonable to label the United Kingdom as a policy leader, but the actual policy is a deviant case when compared with the average trend in the dataset. It is also a deviant when compared with the ‘landlord’ model as defined in the World Bank Port Reform Toolkit (WBPRTK, 2003).

The history of port governance in the United Kingdom is set out in Table 6.3. The seminal moment in this account is the end of the Second World War, when many ports were nationalised along with their attendant dock labour. With globalisation and the

ideological shift that came with the Thatcher government, the trend reversed and devolution to the market of all functions, including deregulation of the dock labour market became the norm. This approach continued under the New Labour administration suggesting that the globalisation of trade and of public service modernisation ideas had transcended political partisanship. With the exception of Ministerial sign off (political veto power) for major projects, post public enquiries, all functions in major container ports are now devolved to the private sector<sup>26</sup>. Devolution to the market is comparatively extreme as there is no national level regulator and thus the port industry is treated the same as any other with market forces dictating capacity development, service levels and the growth in foreign owners. These issues continue to feature in political discourse, however at this point no policy revisions are implemented. The United Kingdom Therefore is the only example of full devolution to the market of port functions, critically in tandem with labour institutional reform. Port efficiency and performance are not concerns in this research; however, the reforms initiated in the 1980's, largely completed in the 1990's, remain politically stable. This is certainly true of the strategically important international container ports, although lower tier ports remain a mix of private, public trust and municipal ports. This mixed profile is also a feature in many states, for example Canada (Debrie et al, 2007; Brooks, 2006). The philosophical underpinning of the reform in the United Kingdom ensures that the economic objective of the private port industry is the maximisation of shareholder wealth rather than the transfer of economic benefits to the wider economy in lower costs to domestic producers and consumers.

Trading ports in the UK evolved into four different governance models in the nineteenth century. They are “statutory trusts, municipal undertakings, railway companies, and private ownership” (Pettit, 2008: 719). Trust and private ports derived their authority directly from Acts of Parliament. Municipal ports were established at local government level. Ports were, for a time, seen as a good fit for railway companies to control the transport chain (Pettit, 2008). There is little evidence of concern for national policy direction to this point. There is evidence of concern on the labour side as the common practice was to hire casual labour on a daily basis (Davies, 2007). As argued elsewhere in this text it is important to relate any narrative on port governance to complementary labour institutions for dock labour. Prior to the Second World War, a Royal

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<sup>26</sup> There are a number of port governance reviews in recent years that provide a good account of a continuing policy in favour of privatisation. One example is the ‘Modern Ports’ policy statements of 2000, revised in 2009.

Commission considered the “coordination and development of transport”.<sup>27</sup> The report made a number of findings including the idea that ownership by one form of transport of another to which it is connected is undesirable. This was a concern for domestic politics and actors and was repeated in the United States of America with the passing of anti-trust laws to control continental rail companies (Fawcett, 2006; Brooks and Pallis, 2012). This concern is interesting when compared with the international practice today of allowing shipping lines to own or at least control port terminals. The Royal Commission in the United Kingdom did recommend the Trust model for port governance, but critically did not make it mandatory. Consistent with policy discourse in the twenty first century the Royal Commission did not see a need for a state body to manage capacity planning and development, or for a regulator.

In 1947, the next major shift in ownership policy stemmed from the Transport Act, which nationalised railway companies. This had some impact on ports as the railway ports were transferred to a state entity called the British Transport Commission, with their related Ferry Ports going to the British Railways Board. There was no change in the ownership structure of the Trust, Municipal, or Private ports. Thus, non-state actors in the industry continued to control the direction of the industry even though the ideological preference of the post war government was to bring transport infrastructure within state control. One reason for the apparent failure to coordinate fully state planning policy in the port sector was the lack of administrative capacity at national level to understand the industry, in part because of the lack of good information on cargo and people (Goss, 1998; Baird and Valentine, 2006). The Rochdale Report on Ports (1962)<sup>28</sup> signalled the next significant event in port policy development in the UK. A key recommendation, to better manage and plan for sector growth, was to establish a national ports authority. One political objection to this voiced a concern to such an authority controlling project approvals for market actors, old and new, while also regulating competition. Ultimately, an advisory body, the National Ports Council (NPC), was established although concerns remained about adequate competition between ports within this national framework. This was underwritten by the Harbours Act 1964, which critically retained final project approval with the minister of the day. Central planning and project approvals did switch to standard financial appraisal

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<sup>27</sup> Royal Commission on Transport, final report- the coordination and development of transport. 1931 (HMSO)

<sup>28</sup> The Committee of Inquiry into the major ports of Great Britain 1961.

methods, discounted cash flow analysis (DCF)<sup>29</sup>. Such methods are market-based mechanisms that assess relative gains and losses for projects over the life of the project. While the United Kingdom policy approach from the 1940's onward reflected global Keynesian trends towards state intervention in public infrastructure supply and operation, the goal of a nationalised industry was not achieved. Administration, information flows, and project appraisal methodologies were improved. However, the key devolution issues of ownership and control by states or markets were not addressed. Policy arguably was 'stretched' over time, as the NPC seemed to leave project initiation to individual ports while retaining the power to veto such developments rather than follow the original idea of leading the planning process. There is evidence Therefore, of port institutional frameworks retaining a significant role for the non-state sector. In path dependence terms then the breaking of this link to enable wider private sector participation was perhaps slightly less dramatic than it might seem.

The political context of the late 1970's and early 1980's provided an opportunity for a significant shift in the policy focus for ports. Political debate concentrated on the Public Sector Borrowing Requirement (PSBR), the need for efficiency in public services, the power of labour unions, and the contrast between the markets led ideology of the new conservative government and the interventionist approach of labour socialism. Table 6.3 summarises the development of port policy with legislative acts providing the critical points in the narrative. Political views have evolved from an initial ad-hoc and laissez faire approach to interventionism right up to the late 1970's. At this point a radical shift in policy to a market led approach resulted in the vast majority of port activity by volume of containers becoming privatised. From a view that the state should manage the market along with the planning and development of capacity, politics became comfortable with the idea that the market will self-regulate and invest in new capacity. This final function was not entirely shifted to the market as the Minister retained an effective veto on larger projects. This explains the policy score in the data as less than full privatisation. It is also possible that the market did not invest in new marine infrastructure given the need to wait long periods for a return.

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<sup>29</sup> Discounted Cash flow calculations depend heavily on the estimates for future net cash flows and future costs for capital. The longer the time the higher the risk of error in the calculation despite higher risk factors in the discount rate given the impact of longer-term rates on the net present value diminishes over time.

**Table 6.3: Port Policy Development in the United Kingdom (1948–2013)**

Year	Legislation	Railways	Ferry-ports	Trusts	Municipal	Private
Pre WWII	Various	Private	Private	Statute	Local	Statute
1948	Transport Act 1947	BTC <sup>2</sup>	BRB <sup>3</sup>	✓	✓	✓
1962	Transport Act 1962	BTDB <sup>4</sup>	✓	✓	✓	✓
1981	Transport Act 1981	ABP <sup>5</sup>	Sealink <sup>6</sup>	✓	✓	✓
1983		ABP (51.8%)		✓	✓	✓
1984		ABP (48.2%)	Seacontainers/ Stena	✓	✓	✓
1991	Ports Act 1991	✓	✓	Private option <sup>7</sup>	✓	✓

✓ means there is no change on the previous period

Notes:-

1. Dock labour was ‘nationalised’ in 1948 (National Dock Labour Scheme) and was not deregulated until 1989 leaving the privatised ABP to function with state controlled labour for a number of years.
2. British Transport Council
3. British Railways Board
4. British Transport Docks Board
5. Associated British Ports (21 ports in 2013)
6. Sealink was sold to Sea Containers Ltd and was purchased in 1995 by Stena Line
7. The Ports Act 1991 empowered Trust ports to go the private route and for the larger ports (>£5m turnover) there was a provision to push such ports to privatise.
8. The only non-private ports today are smaller Trust ports that have decided to remain as such and the smaller municipal ports. Therefore, the vast bulk of tonnage is managed privately.
9. The ‘Modern Ports’ policy statements of 2000 clearly reinforced the market led view with three models remaining: Private, Trust, and Municipal. Trust ports are accountable as profit driven enterprises. This is reinforced in a policy statement of 2009.

In more recent times, the industry has become more concentrated in a small number of international terminal operators; and finance houses interested in long term low risk returns are also entering the market. Hence, there is a renewed appetite in the United Kingdom for new projects, for example the London Gateway project being developed by DP World and the Felixstowe Trinity Terminal in the selected United Kingdom port

in this study. Government policy is now focussed on modernising and privatising Trust ports as well as promoting new capacity in partnership with the market.

There are a number of points of interest in the UK case. In path dependency terms two critical events produced radical changes in direction for port policy. The post war period saw an interventionist approach that included dock labour institutions, state ownership models, and a National Ports Council from 1962 (NPC). This remained unbroken until the change to privatisation in the 1980's, which after a relatively short time resulted in a deregulated labour market. It also brought an end to the NPC in 1981. In each of these phases, concerns about inefficient planning and service monopolies remained constant and were not dealt with ultimately by the state. Intra port competition seems not to be a concern although it did become an element of the debate initiated as far back as the Rochdale Report (1962) where merging of ports sharing the same estuary was proposed. This is another important finding as it explains the reduced policy score. Pricing is based on the full cost recovery model rather than the social model common elsewhere in Europe at the time, which is consistent with the logic of an Anglo-Saxon business culture.

The issue that has most occupied a space in the policy debate is the need for clear guidance to the market on demand forecasts so that the risk of ministerial veto to a capacity development project is reduced. The series of policy statements listed in Table 6.3 reinforced the market led policy strategy during a period when New Labour was in power. This supports the argument that this latest wave of interdependence in trade, democracy, and ideas has limited the impact of party conflicts in favour of policy pragmatism. Perhaps the central administration never really had control of the market despite a deliberate and unsuccessful nationalisation policy. There are literature references to the lack of data on port activities at national level suggesting a lack of capacity or tradition in regulating the market (Goss, 1998; Baird and Valentine, 2006). Assuming that devolution of authority to port level was in effect the norm then selling these corporate entities to the private sector was not such a dramatic shift. This means that the practical shift in control was not as paradigmatic in the United Kingdom context as at first it might appear. The change certainly had a dramatic impact in the United Kingdom and internationally but the change itself in substance was arguably not so dramatic. As an outlier in the study, the evidence suggests that path dependency arguments still apply given the substance of the United Kingdom policy context. The political calculation for ports policy for the Thatcher administration, assuming one was

taken over and above the grander ideological project, was that bit easier to justify. There remain considerable differences in opinion as to the economic costs and benefits of the privatisation project but it appears once the change was made, there is no possibility of reversing the process.

While the politics of change in terms of governance may not have been that dramatic, the real political battle for the conservative government was primarily about labour reform. This took a decade to achieve in institutional terms but disputes, notably on Merseyside, continued for many years (Journal of Commerce, 12/3/1997). This was the real political shift and represented a complete reversal of the interventions made in 1948, which from the union side was the culmination of a hard fought battle. Labour reform for Thatcher was at the heart of the systemic change project after the periods of unrest common in the 1970's. With the abolition of the National Dock Labour Scheme in 1989, ports were in a position to introduce changed work practices and thus increase productivity. The traditional, pre 1948, labour environment within the port environs was far from any modern social ideal. Workers were generally casual turning up each day in the hope of being selected for a few hours' work. With the growth in trade, the National Dock Labour Scheme was designed to give workers some form of guaranteed hours, to fix the number of dockworkers required per shift and per cargo type, and to limit any market flexibility subject to additional payments. In a reformed environment, post 1989, the power has shifted significantly to the employer who can set shift and cargo requirements in response to customer demands. Technology has reduced the numbers required quite dramatically and therefore, the power to restrict a ports operation through industrial action is greatly diminished. The labour force in modern ports tends to be treated a lot better and to be higher skilled than the traditional dockworker. However, labour reform in the United Kingdom had two impacts. First, scholars argue that improvements in port performance can be accounted for by labour reform rather than ownership changes (Thomas, 1994). Second, the change itself encountered fierce resistance across the economy and in ports. Ultimately, the Thatcher government succeeded politically and the power of labour was much reduced. This impotence was further embedded with the rise of New Labour under Blair, as there were no policy reversals on taking power (Note 9 in Table 6.3).

A final point about the United Kingdom case relates to security concerns. The full ownership of major ports was transferred to the private sector, which did not happen elsewhere globally. The evidence in this study is that states retain ownership of the

underlying land and concession the operations. As time has passed, the larger private United Kingdom ports have changed ownership. For example, the Associated British Ports business is now owned, since 2006, by a consortium that includes Goldman Sachs. The London Gateway project is under the ownership of DP World, who also has an interest in Southampton port. DP World is owned by another state, Dubai. First, there appears to be no mechanism to control foreign ownership of United Kingdom ports and there is no mechanism to control how the new owners develop their lands outside of the normal planning regime. A similar situation in the United States of America, post 9/11, resulted in the forced sale of DP World's interests there. This has not occurred in the United Kingdom and it is not a significant part of the political debate so far. This supports the argument that security issues are not drivers of port governance reform and it is also a port related issue in some states because of geo-politics.

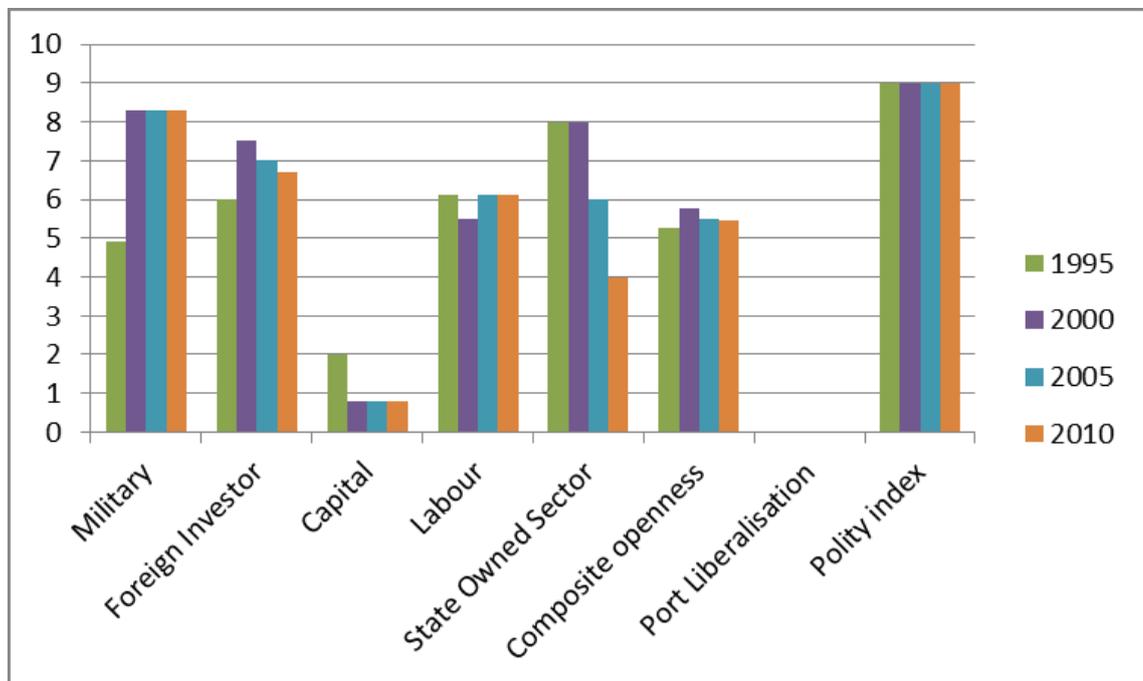
### **6.2.2. South Africa**

South Africa is an outlier in that the actual policy level does not reflect the expected value for a democratic society with a liberal economic model. In the case of South Africa there have been a number of political attempts to privatise the operations of their container ports but so far trade unions have successfully resisted the reforms (Containerisation International, 03/03/2008). In late 1999 the then Minister for Public Enterprises, Stella Sigcau, announced that the state owned enterprise unit for ports would be split into two divisions as a first step to privatisation for the seven commercial ports in South Africa (Containerisation International, 15/10/1999). In 2000, the division of Transnet responsible for ports was sub-divided into two business units: Transnet National Port Authority to cover the landlord and regulatory functions, and Transnet Terminals to manage port operations (Containerisation International, 01/01/2002). It was a reorganisation that arguably improved efficiency, mirrored an industry trend to a landlord model, and was a necessary precursor to privatisation. In 2010 the country had one container port in the top fifty globally, Durban, that has only dropped from the largest port category once since 1980 (CI online data).

In 2003 Containerisation International reported that the National Ports Authority Bill was approved by parliament “providing the legal and institutional framework for private concessions”; and the then Transport Minister claimed that the necessary agreement between government and the trade unions was imminent (Containerisation International, 01/11/2003). The unions, consistent with arguments in other countries, contested the change on the basis that there are other methods of improving ports performance. The

political discourse at this juncture reflected the desire of the government to privatise while compensating trade unions for change and job losses through a negotiating process. The targeted first privatisation was Durban, the largest container port in the country. Before the Bill was passed, the three port worker trade unions (SATAWU<sup>30</sup>; UASA<sup>31</sup>; UTATU<sup>32</sup>) had withdrawn their labour over privatisation concerns (Containerisation International, 01/12/2002). Figure 6.3 charts the institutional context for port reform. While openness to capital movements are constrained there is evidence of market interest in operating at South African ports, with Maersk and MSC reported as interested in operating in Durban (Containerisation International 01/04/2002). As appetite is apparently good, this suggests that change is resisted domestically.

*Figure 6.3: South African Political and Economic Institutions*



Note: The port liberalisation value is zero for the period as the sector remains fully in State control.

Labour resistance is reported as discontent with the level of consultation and a desire to limit job losses; and to constrain reform to container terminal operations only (Containerisation International 01/11/2003). However, it is interesting that at state management and political level the social context is the stated difficulty with the pace of privatisation. Zeph Ndlovu, the SAPO container terminal manager in Durban observed that the “privatisation process of SAPO will take time because the government also has to deal with a number of social issues stemming from the current tripartite alliance

<sup>30</sup> South African Trade and Allied Workers Union (SATAWU)

<sup>31</sup> United Association of South Africa (UASA)

<sup>32</sup> United Transport and Allied Trade Union (UTATU)

between the ANC, Cosatu<sup>33</sup>, and the South African Communist Party” (Containerisation International 01/04/2002).

The Minister of Public Enterprises from 2010, former President of the ANC Youth League Malusi Gigaba, characterised the context for state enterprise privatisation as follows:

“South Africa’s primary challenges are characterized by the legacy of apartheid, highly unequal and racially based services, poverty and a massive rural-urban divide. There are vast racial inequalities in the distribution of and access to wealth, income, skills and employment. In addition, women, especially black women, remain subordinated in terms of income, job opportunities and power relations.” (Extract from policy statement on website of Transnet.)

(Source: <http://www.transnet.net/AboutUs/Shareholders.aspx>)

The policy coordination process is constrained by social context given this statement comes from the minister with responsibility for port privatisation. History and context do matter and politics suggests that until progress is made in broader institutional reform there is every chance that port reform will be slow, despite enabling legislation and private sector interest. While labour resisted the privatisation of ports successfully for the duration of this study, the national political discourse of reform and reconciliation played a significant role. Therefore, nationalism understood as the institutional framework that reflects national economic interests ultimately dictates the course and pace of port reform. South Africa, as a former dictatorship in transition to democracy and liberal economic institutions, is still dealing with past legacies. Therefore, the path of resistance, dominated by apartheid, can be explained in part by labour resistance and in part by national challenges for South Africa. In Figure 6.3, there is a retreat in market freedoms for capital, foreign investor rules, and more interestingly an increase in the role of the state sector in the economy. The labour reform agenda appears to be dependent on wider institutional developments. The combined openness score is but halfway to the ideal type score of ten. Therefore, the slow down or retreat in broader reform is matched by the stalled port reform process.

In terms of the propositions for policy variance, this apparent outlier in the data provides some useful insights. First, dock labour can and will resist change where they

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<sup>33</sup> A Trade Union Federation formed in 1985 to participate in the tri-partite alliance

have the institutional capacity to do so. Second, change is a function of the past and the resultant political and social context. Third, legislative change does not in itself produce institutional change, as the process requires a great deal of political coordination. Fourth, this case provides an explanation for a country that does not seem to fit the statistical models in Chapter 5.

### 6.2.3. Indonesia

In political and economic terms, Indonesia has experienced a twin crisis (Hill et al, 2009); the Asian financial crisis and the fall of President Suharto resulting in a democratisation process. Indonesia is selected for a more extensive analysis of the port reform debate for a number of reasons. First, the initial international aid related debate in 1996 commenced while President Suharto, a dictator since 1965, was in power. The macroeconomic context for this period is characterised as ‘pancasila’<sup>34</sup> economics, which is neither interventionist or market based resulting in a large State Owned Enterprise sector that includes ports (Hill, 2000:170). Secondly, the later attempts at reform occurred during a transition to democracy. Indeed policy choices favoured deregulation and re-regulation of the maritime and port sector under both Suharto and post-Suharto regimes (Dick, 2008). Finally, the role of labour is of interest as the latest policy prescription continues to provide protection for the existing workforce. The debate over the new legislation to liberalise the port sector in 2008 included arguments of liberal market economics as a driver for efficiency and growth; concerns from labour interests on employment prospects for existing workers and for employment growth; nationalist concerns about the transfer of assets to a foreign entity or even another state; security concerns from an institutionally powerful military; and concerns for the integrity of autonomous regions, such as Aceh<sup>35 8</sup>.

In the new democracy, after the departure of Suharto in 1998, there was a need to differentiate party policy from competitors and a particular feature of the first elections was a lack of ideological difference among the candidates<sup>36</sup>. The executive also engaged in developing incentives to persuade different parties to support their proposals; and

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<sup>34</sup> ‘Pancasila’ is the founding philosophy of the Indonesian Constitution. It embraces principles of unity, faith in God, democracy, social justice and civilisation. In economics, this translates into concepts of community welfare over capitalism.

<sup>35</sup> Conversations with Kevin O’Driscoll who acted as a political consultant with UNDP on a candidate training programme for the first parliamentary elections after the fall of Suharto in 1999. He also worked as a consultant on port projects during 2005-2010.

<sup>36</sup> Ibid.

with interest groups, the narrative tended to be normative as well as pragmatic<sup>37</sup>. The pragmatism was driven by the need to protect material interests; however, the normative aspect refers to arguments around protecting the national infrastructure from foreign investors, a form of economic nationalism<sup>38</sup>.

While the new Shipping Law (17, 2008)<sup>39</sup> may appear to liberalise the port sector with the removal of the state monopoly on port service provision, other complementary institutions remained protectionist (Dick, 2008). For example, the annual ‘Negative Investment List’<sup>40</sup>, maintained by the Coordinating Investment Board, set for each industry the level of foreign investment allowed. However as the list changes each year uncertainty limits the appetite for foreign investment in long-term assets such as ports. Another example is that the new democracy devolved many powers to provincial and municipal levels but an effective veto was maintained at central level by not rescinding all prior legislation<sup>41</sup>. Thus, the approval of both the President and the Governor of the Province may be required for a port project. This resulted in some confusion in the market for port infrastructure projects<sup>42</sup>. Investment in infrastructure in general remains low. A number of Infrastructure Summits sponsored by the newly democratic government in Indonesia listed transport projects ready for investment and development. Of the 91 listed at a summit in 2005, only one is off the ground in 2012 (Asia Today International, May 2013). In Aceh despite political declarations and international funding no major port project has materialised post conflict and tsunami<sup>43</sup>. This autonomous province is technically not subject to the Jakarta Negative Investment List or Presidential approval; however, national officials exercise power through budget negotiations for internal transfers to the weaker region<sup>44</sup>.

The Shipping Law (17, 2008) covers two markets, shipping and ports, with shipping featuring as the main platform and policy focussed on a significant role for protectionist mechanisms such as cabotage (Dick, 2008). In some respects, the port sections of the

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<sup>37</sup> Interviews with political lobbyist for Shipping Line in 2012.

<sup>38</sup> Ibid.

<sup>39</sup> Law of Republic of Indonesia No. 17 Year 2008

<sup>40</sup> <http://www3.bkpm.go.id/contents/general/26/negative-investment-list> ; Indonesia Law Report (23/10/2013)

<sup>41</sup> Based on legal advice received as part of due diligence project.

<sup>42</sup> Presentation by Mr Leon Muhamad, Director General, Directorate General of Sea Transportation (DGST), Ministry of Transportation of the Republic of Indonesia in November 2012, where author was also a presenter.

<sup>43</sup> Confirmed through field trip.

<sup>44</sup> Author’s prior work on infrastructure project in Aceh from 2005 to 2008; and discussions with local political actors, and senior members of regional development authority (BPKS).

Law (17, 2008) represented a re-regulation (Dick, 2008). Two container terminals in Jakarta were opened to the cargo handling international market in the 1990's (Jakarta Post, 27/11/1998). This was on a joint venture basis with Hutchinson winning both contracts (Hong Kong Standard, 01/04/1999). The reform of the 1990's, under Suharto, in ports was in part driven by calls to privatise the Jakarta container operation. The solution was to keep the monopolistic state owned corporation, Pelindo, in control with a shareholding to Hutchinson. Indeed maritime reforms of the period were characterised as unsustainable as the "virtual cycle of reforms had come under pressure from entrenched rent-seeking interests even before the Asian crisis". (Dick, 2008:384).

In relation to ports, the 2008 policy stated intention was to end the monopoly of Pelindo, the state owned port corporation (17, 2008). Pelindo owned and operated all international ports in Indonesia, retaining the functions of regulator, operator, and landlord<sup>45</sup>. The objective for the lobby group was to privatise port operations, for their own use as domestic capital<sup>46</sup>. No matching reform of the investment rules for foreign partners followed<sup>47</sup>. The legislation set out the principles for a new port governance structure that allowed for privatisation and the potential sale or breakup of the Pelindo Corporation. Implementing regulations followed in 2009 (61, 2009). Pelindo survived although divided into two independent entities of the National Port Authority and a commercial port operator (61, 2009). Pelindo also retained ownership and control of all existing ports limiting the private sector to new developments (61, 2009). A political lobbyist commented that the "development of infrastructure services is greatly affected by the relevant regulations as well as political conditions. The issue is that some parts of the regulatory framework are not aligned with other frameworks" (Asia Today International, May 2013). He further contends that "the Shipping Law (17/2008), which promotes the segregation of roles between the Port Authority/Port Management Unit and the Port Business Entity, has not been fully implemented. The relevant government regulation further clarifying these matters has not been introduced. Currently, Pelindo still operates as both the port authority and operator within the industry. This is technically contrary to Law 17/2008" (Asia Today International, May 2013). The introduction of port regulations in 2009 did not clear up this particular issue nor did it clarify the issues surrounding regional versus federal laws for ports and shipping.

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<sup>45</sup> Based on site visits over the period 2009-2011.

<sup>46</sup> Lobbyist interviews

<sup>47</sup> Negative Investment List (BPBM)

Mr Leon Muhamad, Director General, Directorate General of Sea Transportation (DGST), Ministry of Transportation of the Republic of Indonesia, described the legal framework for ports as at November 2011 as having three strands<sup>48</sup>. First there is port law which derives from Regulations in 2001 (69/2001), Shipping Law (17/2008), and further regulations in 2009 (61/2009). Second there is the complementary Shipping Law (17/2008), and its predecessor from 1992 (21/1992). Finally there are the laws that devolved power to the regions on the fall of the Suharto regime in 1998 (22/1999 and 32/2004). In a conference panel discussion<sup>49</sup> with the author he acknowledged the political uncertainty but did highlight the shift in the policy making ethos to one of facilitating the market in deciding where to locate and invest, rather than the government directing the public sector to supply infrastructure directly. He further argued that the establishment of a National Port Authority separate from the cargo operator, both derived from Pelindo, is sufficient to promote competition within and between ports. Again the policy as implemented is consistent with a national economic framework that protects labour interests and limits foreign private sector investment to new projects. Added to this the uncertain institutional structure during transition to democracy ensures that the stated intent of deregulation to the market is resisted. Port reform will depend on complementary institutional reforms despite the liberalising intent of the Shipping Law in 2008.

An illustration of this retention of power, arguably achieved because of the close ties and cross relationships with officials in the relevant departments of central government, is the major developments planned for Jakarta port. The shipping company that sponsored the new legislation and specifically the port additions to the new law also had a leading interest in developing a new project in Jakarta port<sup>50</sup>. They had significant political support at Mayoral level and had invested significant sums in developing the project<sup>51</sup>. In short, Pelindo retained the right to develop the project and recently announced a partnership with Mitsui, as a shipping line and a terminal operator, to design and operate the container terminal<sup>52</sup>. The effective governance structures for this major project reflect common practice elsewhere in Indonesia with the state retaining

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<sup>48</sup> Port Infrastructure Conference, Jakarta, November 2011; co-panellist with author

<sup>49</sup> Ibid

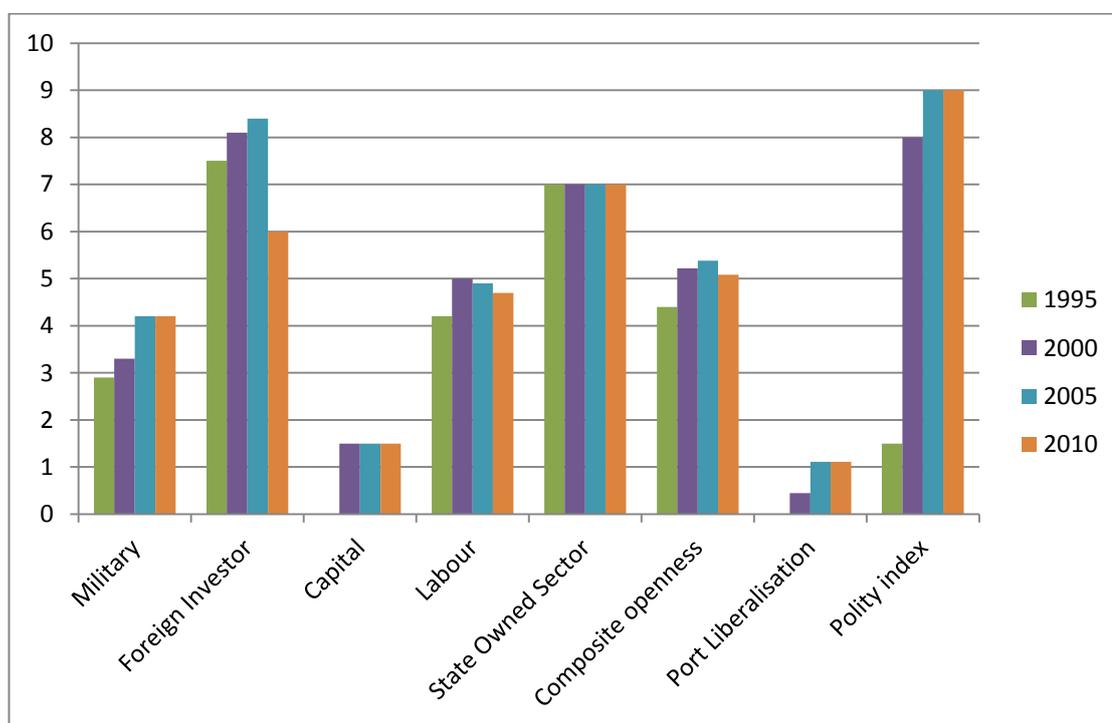
<sup>50</sup> Political lobbyist

<sup>51</sup> Ibid

<sup>52</sup> <http://www.indonesiaport.co.id/newpriok/news/mitsui-is-the-partner-of-ipc-to-operated-container-terminal-31.html>

considerable ownership and control, through state owned corporations, while involving the private sector as partners for cargo operations.

*Figure 6.4: Indonesian Political and Economic Institutions*



Note: The Polity score at -7 (on 20 point scale of democracy from -10 to +10) before the fall of Suharto is recalculated for graphical purposes  $[(-7 + 10)/2]$

While democracy and foreign investor freedoms appear to be more open to the market at the end of the period (see Figure 6.4), the influence of the military and the state owned sector in the economy remains relatively high. Foreign investor regulations are less open at the end of the period and capital movements remain restricted. The evidence from the primary documents analysed demonstrates that port sector policies reflect this institutional context; and that past practices are relatively stable with minimal real change observed.

The country still functions under the 1945 Constitution. Article 33, as interpreted by governments and the courts thus far, empower state institutions like the military to intervene in the economy to maintain the cohesion of the state (Hill, 2000:96). This dual mandate of the military, *dwi fungsi*, requires the military to protect the social and economic order as well as in security terms (Törnquist, 2000:397). This results in “symbiosis between political and economic power” (Törnquist, 2000:421). Post democratisation former generals have been elected to high office including President

Susilo Bambang Yudhoyono (2004-2014). There is no direct evidence of the military intervening in the reform of the port sector, although they maintain a significant presence in major commercial ports. The future development of the sector is closely linked to the evolving political environment and continuing stability. The governance model reflects normative practice for the Asian cluster with the broader national economic interest dictating policy outcomes. The policy paradox is that the need for foreign capital to develop port infrastructure is not matched by an institutional framework that provides certainty over property rights, competition, and labour practices. Domestic politics dictate the policy form in how it is actually implemented citing an Indonesian image of economic nationalism. Power is exercised through political permissions and the Negative Investment List; however, the market continues to respond by leaving prices high, and shipping containers through Singapore rather than Jakarta International Container Terminal, the nationally declared Indonesian hub port<sup>53</sup>.

In terms of labour, the effective regulations retained the existing workforce although they are now allocated to the two new entities of NPA and Pelindo (61, 2009). Reform produced no discernible job losses. In all interviews, labour institutions did not feature as a necessary element of a port reform package. The power of the bureaucracy in Indonesia is significant quite often producing differences in the actual detail of policy implementation (Hill, 2000). Pelindo managers and employees remain in the state structure suggesting a coalition of interest that included labour.

Indonesia did not respond to the financial crisis with accelerated port reforms. Privatisation of terminals was already an option although in practice not implemented in a fashion that opened the sector to real market forces. The case of Hutchinson in Jakarta described earlier is one such project. Wider institutional reforms have not happened and thus the market has not, as yet, responded. This may be in part due to the long lead times common in infrastructure but the evidence discussed here suggests that powerful domestic interests are not inclined to reform the port institutional package. The port policy value is quite low as a result. It does represent strong evidence of policy patterns reflecting local historical and social contexts, that is, a path dependent policy process. In terms of regional convergence, the model most often quoted in interviews as the leading benchmark is their nearest neighbours in Singapore. The main legislation and

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<sup>53</sup> This is based on a presentation at Pelindo conference, Jakarta 2010, by a shipping company on prospects for hub operation in Jakarta. JICT is the Jakarta International Container Port.

regulations (Law 17, 2008; Regulation 61, 2009) are framed in a fashion to reflect a state coordinated approach in the Asian group<sup>54</sup>. However, the market and related institutions have not responded as yet. Indonesia for the moment remains an outlier in terms of regional comparators but the policy profile is entirely consistent with the evidence of domestic interest resistance, primarily labour embedded in the powerful state bureaucracy.

### **6.3. Labour and other domestic interest groups**

The self-reinforcing form of path dependence, explored in Chapter 2, assumes that an institution will continue to defend itself, may possibly adapt to new circumstances, and will survive political attempts to close it down. Therefore, in political terms the costs associated with an exit from this institutional arrangement are high. Logically, if there is a shift in this cost calculation then path dependence can be considered as reactive, as the changes implemented will be consistent with the inherent logic of the broader institutional framework (Reveley, 2008). This assumes that one event will naturally lead to another. It is not sufficient alone to show policy development as slow or no change as it is possible for policy actors to exchange their objections to change for value elsewhere. The advent of containerisation resulted in many cases of unions extracting high rents for themselves rather than facilitate policy change that might distribute welfare gains across the economy. This positions interest groups as resisters and policy proponents as the coordinators that may result in the transfer of compensatory payments. Over time the cost calculation may change, incentivising policy makers to make reforms as the benefits of change are greater than the costs of resistance.

Labour militancy re-enforces the lock-in of labour institutions as the costs associated with policy change are considered too high unless a critical event shifts the calculation. These costs are higher again when the wider institutional framework for labour is protective of union power. Another feature of institutional stamina is that the related organisations in the industry can “become entwined with institutions whose existence they then defend” (Reveley, 2008:200). In the case of New Zealand, stakeholders began to lobby harder as the structure of trade altered, and shippers looked to “lower transformation costs by decreasing the labour intensity of the work process” (Reveley, 2008:201). The unions responded, as in other countries, by driving hard bargains for

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<sup>54</sup> A member of a consultative group of the Maritime Directorate in conversation referred to Singapore as the policy leader and described a process of regular interaction in framing the new policy. While this one conversation is not definitive, it does point to a tendency to emulate successful neighbours.

using new technology. Rather than accommodate change within existing institutions the unions had raised the stakes and incentivised their political opponents to invest in change. “These were fateful decisions under the logic of reactive path dependence, because the way that port union power was exercised at a time of technological change led eventually to the demise of the very labour market institutions that sustained that power” (Reveley, 2008:201).

Sector specific interest groups representing specific factors may mobilise to influence policy outcomes depending on their need to seek protection. In the case of dock labour there is extensive evidence and apparent consensus that a wider role for private interests in port operations will negatively impact their interests, including the wider port community (Turnbull 2000; Davies, 2007). Labour interests will function in different ways depending on different social and political contexts. For example, labour may take strike action in a democratic setting while in a non-democracy labour may be cultivated as clients of state leaders. What is expected is that labour will resist the privatisation trend. The interest group that is examined in this section and in the subsequent discussions of particular countries is labour. Nonetheless, capital and security interests are discussed to provide a rounded view of the policy narrative.

In terms of economic history, there were always economic incentives in the port system for various actors to take economic rent from the process. This is defined as “the payment to a factor of production over and above what is needed to keep that factor in its current employment” (Goss, 1999:2). In the case of labour in ports, the capacity for rent taking remained high. In the past dock labour was generally a casual activity with endless opportunity for abuse of workers. This practice disappeared in many places with a process of labour reforms labelled as ‘decasualisation’. However, in economic terms this makes a labour market less contestable and inefficient. Again, port labour practices evolved. This latest round of reforms seeks to shift the labour issue direct to cargo management entities with normal freedoms as to hiring and firing. Therefore, the level of labour regulatory freedoms for global enterprises to function is a useful indicator of the context for wider port reform from 1990 onwards (see Table 6.1).

There are other factors that may influence outcomes, although they are not evident in the data employed here. In examining specific countries, security interests certainly feature in the political discourse, but they do not play a significant role in maritime economic literature. In the main, security features as a line of argument used by interest

groups to influence a policy process or to maintain a particular set of beliefs of what is appropriate. It can also feature as a debate about who participates in ports. In the case of India one tender process for private participants in a new container terminal excluded Hutchinson, the largest such operator at the time, based on strategic concerns over their Chinese (Hong Kong) ownership (Port Strategy, 28/02/2013). In the United States, political rhetoric after September 11<sup>th</sup> 2001 focussed on risks associated with Arab ownership of container terminals. One democratic congressman from Tennessee, Harold E Ford Jr, argued that “President Bush wants to sell this port (Baltimore) – and five others – to the United Arab Emirates, a country that had diplomatic ties with the Taliban, the home of two 9/11 hijackers, [and] whose Banks wired money to the terrorists.” (Washington Post, 2006). Capturing this discourse is not appropriate in the cross-national analysis primarily because it is focussed on who participates rather than what policies should be adopted. Where rent seeking is a feature, security and other domestic agents will generally be interested in who participates, such as themselves, rather than the policy structure necessarily.

Twentieth century analysis of dock labour institutions across most of the western economies highlights two significant and contradictory events. First, in the period after WWII, most countries engaged in institutional reforms to embed the practices of dockworker registration from the war period into a set of rules and practices that de-casualised the workforce. Dock labour would now have certain employment and protected terms and conditions. From an employer’s perspective, labour became available from a pool of registered workers, generally employed by a state institution. As described elsewhere there was little technological change in port operations to this point despite significant technological and innovative shifts in shipping and communications. General cargo still required significant manual handling at port level. Therefore, the cost concerns of the industry focussed on labour rates and the costs associated with labour stoppages. Capital and labour gained from the new institutional arrangements with certainty for all. Over the following years, the institutions did provide labour with greater power through the threat of a stoppage and through overcoming collective action obstacles common to casual employment regimes (Turnbull, 2000). By registering and organising, dockworker unions were able to mobilise, and extract ever-higher wages, and institutionalise exotic work practices. While in the earlier phase, increased labour and indirect labour cost increases were tolerated, as the economies from this new container technology spread through the

transport chain the port element of the transport cost became more important to shipping lines (Reveley, 2008). This brings the costs associated with collective action lower than the on-going costs of acquiescence. Capital interests, international at first and domestic later, organised to make the political costs too high and policy change inevitable. Thus, the protectionist phase for dock labour came to an end in most countries.

A further unintended consequence was the fragmentation of domestic capital interests as many small firms were dependent on this internal labour market arrangement and/or they could make sufficient profit despite reaching special deals and corrupt arrangements with the unions. With globalisation, and containerisation, came the international cargo operator with the capacity to overcome this constraint on collective action and push policy makers to reform. These reforms were in labour institutions and in devolving power to private interests through control over some port services traditionally managed by the state.

The results from the process tracing show that labour resistance is persistent but not always successful. The Strike Club<sup>55</sup> recorded a significant increase in politically motivated strikes in the late 1990's (Turnbull 2000:367). He argues that the waves of dockworker strikes that featured in the last few years of the twentieth century were "essentially a response to globalisation" given that labour market and port governance reforms followed. These dock strikes were "part of a wider resurgence of labor militancy" (Turnbull 2000:368). The argument that such disputes were political and framed in war like discourses is compelling. As to the defiance of global ideational trends, it is not so clear. Labour certainly resists in all the cases examined. However, the trend suggests that over time, policy alternatives are agreed and where necessary dock labour is worked around. The globalisation narrative that describes labour as passive, responding to economic and social change in the face of globalisation, is in this study denied. The evidence herein suggests that resistance is common cross nationally, that labour has the capacity to act independently, that influence on policy outcomes varies, and that change of some form is inevitable over the long term. Turnbull (2000:369) argues that globalisation "has not only been contested on the waterfront, but these divergent struggles have delayed and in some ports diverted the ambitions of global capital". The Strike Club in early 2013 highlighted that labour unrest in ports continues

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<sup>55</sup> The Strike Club is a private Bermuda based business and recent financial reports and circulars are available at [www.thestrikeclub.com](http://www.thestrikeclub.com). This insurance provider, established in the 1950's, has insured shipping companies against commercial risks that include port stoppages.

to be a high risk for shipping interests (MarineLink.com, April 22, 2013). Reporting a continuing high risk of such events in 2013 is interesting because it shows that militant labour activism is still a feature in ports.

Table 6.4 tabulates the level of sustained strikes during the period 1990 to 2010. The count of strike events is drawn from the documents listed in Table 6.2. Brazil and South Africa are discussed further below.

**Table 6.4: Dock Labour Strike Frequency**

<b>Countries</b>	<b>Reported strikes</b>
Brazil	10
South Africa	7
India, Italy	4
Thailand, Japan, Australia, France	3
Philippines, Canada, Netherlands	1

**Note:** The strike data are based on content identified as referring to privatisation.

Such strikes will not necessarily be about governance reforms in the container shipping industry. Nonetheless, they support the contention that dock labour continues to resist change across the industry. In the selected countries, strikes against ‘privatisation’ are common for the period under review. The count reflects the level of reportage in industry and general print media and take no immediate account of strike duration or if the strikes were recurrent incidents over the same dispute. On a method point, union density as a proxy is of limited value as, for example, France has a relatively low level of recorded union membership<sup>56</sup> and yet has a long tradition of strikes and protests. It is quite likely that union membership cross nationally for dock labour is mandatory through a ‘closed shop’ arrangement, and thus density is at or near one hundred per cent.

An example of privatisation policy consequences for dock labour is the case of Taiwan, which was dropped from the data modelling because of a data deficit for independent variables. However, in the late 1990’s dockworkers were transferred to private operators

<sup>56</sup>This is based on OECD Labour Statistics

from the state port authority resulting in a forty per cent cut in pay and over one thousand dismissals after the initial six month employment security period expired (Turnbull 2000:378). While the scale, timing, and conditions of the changes differ cross-nationally they are all material to their context and exhibit symptoms of high social dislocation. Hamburg fell from 11,000 in 1980 to 5000 by 2007 (Notteboom, 2010:73). As many as eighty per cent of dockworkers were dismissed in the United Kingdom (Turnbull, 2012:540). This is further illustrated by the advices of the International Transport Workers Federation (ITF) on the labour side and the World Bank Group, arguably on the side of capital, as framed by labour activists. The ITF argue that labour “costs typically account for about 60% of total operating costs in ports, even in capital-intensive container terminals. One of the key aims of port restructuring is to cut these costs.” (ITF Fact Sheet 5). The advice of the World Bank to policy makers argues that “Overstaffing... has been a pervasive feature of most port organisations in both the developing and developed world. As a result, to achieve more cost-efficient operations will generally require significant reductions in the workforce.” (WBPRTK, 2003). Kees Marges, Secretary of the ITF Dockers’ Section, describes the attempts by the European Union for a uniform direction on port service provision as representing a “change (in) the balance of power in the maritime industry, not only in Europe, but globally. It would make shippers and shipping lines stronger; and port authorities, terminal operators, workers and their trade unions weaker. Shipping lines and shippers would seek out the cheapest labour they could find. Unregulated labour markets like this would improve neither job safety nor port security.” (ITF Fact Sheet 5). The union side frame the debate as one of survival and militant resistance. In the case of the ITF they describe a key objective of privatisation is “union busting” and argue that such moves are contrary to International Labor Organization (ILO) Conventions: Freedom of Association and Protection of the Right to Organise, Convention No. 87 (1948); and the Right to Organise and Collective Bargaining, Convention No.98 (1949). They cite actions against union busting in the Patrick Stevedores dispute (Australia, 1998), the ‘Charleston Five’ in the USA (2001), Suape (Brazil, 2002), Mumbai (India, 2002), the West Coast of the USA (2002), and Spain (2003). In France such labour resistance “not only delayed agreement on the new system of employment post 1989 but also delayed the full implementation of agreed reform by at least two years”.(Turnbull 2000:379). The battle in France took on war like rhetoric, and a wider social narrative, in opposition to the Reform Law in 2008, with references to “all necessary forms of action” (AFP, 19/04/2008) and a “gallant last

stand” (London Telegraph, 23/05/2008). In Italy, France and Spain national institutional arrangements for labour have been used successfully by dockworker unions to mediate the ambitions of capital (Turnbull 2000:382). The case put that labour pays a high cost in port reform projects is hard to dispute, which supports the argument that there exists strong enough incentive for labour to resist through work disruption and political activism.

In the decades since 1980 the “core of economic policy” has been the reform of markets through deregulation and increased competition (Rama, 1997). In many cases, the market reforms did not include labour market deregulation and Rama (1997) argued that reform success required both to be addressed by policy makers. The “immobility of capital and the costs of strike action to shipping lines, customers and wider economic interests, significantly increases the bargaining power of labour” (Turnbull, 2000:3). Further “dockworkers in most countries are renowned as a well-organised and traditionally militant occupational group” (Turnbull, 2000:3). The general point is that organised labour is a point of resistance in the deregulation of the port service market. It is this institutional capacity that is of interest to neo-institutionalists. In policy terms, reforming the port services market must also include labour initiatives.

In the case of globalised container ports that are integrated into trading networks, one can imply that national policy leans towards free trade. Standard openness calculations for countries are problematic as the sum of imports and exports through the port reflect a great deal of transshipment cargo. For example, Singapore port container cargo is almost entirely made up of units destined for other countries<sup>57</sup>. However, openness for trade can be implied given that such a large proportion of global container traffic transits such ports. One can also imply that the form of free trade model employed is relatively efficient for the largest of these ports. Thus, it is reasonable to argue that any policy intervention will come from a political process rather than competitive pressures stretching existing policies to their limit.

In describing the policy process for global container ports it is useful to conceptualise the policy makers as the common agent for multiple principals charged with producing an equilibrium policy from the menu of support bids offered. Within the labour bid, the price of support is protection while the punishment is a mix of labour stoppages, protest, withdrawal of electoral support, and societal unrest. The proposition herein is that the

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<sup>57</sup> Site visit to PSA offices in 2008

basic process is the same for both democratic and non-democratic states. They differ in terms of the relative power of labour interests as judged by the value policy makers place on their support. Equally, labour may reach a compromise on devolution if the compensatory payments are sufficiently high. In the USA this was part of the solution as those who took severance and those who remained were paid relatively large sums (Port Strategy, 03/06/2011). The process outlined implicitly allows for competitor interests to labour, both in the port service market and groups downstream in the wider economy dependent on efficient logistics. Equally, the perceived benefits of devolution for policy makers may include an international dimension as states seek to honour international agreements and trading rules. The latest round of the WTO has placed trade facilitation, including market access to port services for private interests, on the agenda (UNCTAD, 2012). Similarly, the World Bank and IMF place conditions on aid recipients to devolve port services to the market. By taking this higher abstraction of the policy making process it is possible to bring different institutional settings into the analysis. By considering less democratic states as having a smaller winning coalition<sup>58</sup>, and an equally small selectorate, then domestic interests can remain part of the model. However, they are likely to be weak in opposition. Equally though other factors in this scenario will also seek protection or the proposed policy change, whatever its source, may simply not be allowed on the agenda.

Political transaction costs such as those associated with a system hold-up, which dockworkers traditionally could employ, were a target of capital interests. They also required the institutional capacity to employ directly, rather than through state organised labour pools, and train those workers in operating the new container handling equipment. The industry requirements had shifted from a high volume low skilled working environment to one of low volume with specialist knowledge and skills. Thus, low skilled and casual workers were pushed from the industry. Where an accommodation was agreed, unions tried to restrict the freedom of employers by insisting that all remaining workers be used in rotation and thus incentive payments would be shared irrespective of quality and skill levels. Some unions still held onto the capacity to capitalise on the needs of shippers to achieve quick turnarounds to maintain schedules through special deals. Such rent seeking behaviour on some waterfronts even extended to tolerating corruption and pilfering. As labour could be self-managed, social loafing became a common feature. The author has experienced on a number of

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<sup>58</sup> References to 'selectorate' and 'winning coalitions' are based on the work of De Mesquita et al. (2003)

waterfronts the cases of dockworkers operating as taxi drivers while still formally clocked into work a vessel; the sight of a ship agent negotiating directly with a dockworker 'gang' for cash payments to enable the vessel to be handled to and from the agent's vessel; and the rostering of 'ghost' dockers to a vessel that has no practical need to use labour given the cargo is handled direct using pipelines and conveyors, for example dry and wet bulk cargo.

Across other states, the basic process remains the same; however, some nodes in the process may vary and the relative political calculation will be different or the shift in the balance of costs may occur at different times. For example, to avoid the high cost of reform building a new port is an option. In many of the super container ports from the selected countries, the ports are relatively new. Another solution may be to negotiate a new arrangement within a social partnership. There remain countries that continue to function through an intermediary such as closed shop union sites or casual labour pools jointly owned by employers. A further variant of a union closed shop would be to institutionalise a worker certification system. In the cases of dictatorship, and developing countries, labour costs may be very low and not be a material element in the transport chain costs. Thus, the rebalancing has not occurred as yet. On the transformation side of the equation, dictatorships may enjoy the support of dockworkers as an element of their winning coalition. They may resist change as they may benefit from economic rents in the system, sometimes from domestic capital and labour acting in concert.

Two contrasting examples of labour resistance are described in brief next. First, Brazil as an example of active resistance; and second, Germany as an example of corporatist labour institutions leading to agreed reforms.

In Brazil the Port Modernisation Law 1993 (No. 8630) required existing terminal operators to hire unionised dock labour. In 1998 labour reform was legislated for as Medida Provisoria (Provisional Law) number 1728, which shifted the power to determine gang sizes and to establish a casual labour pool (OGMO) to the private operators. The dockworkers in Santos, the busiest waterfront in Latin America at the time, took the issue of the labour reform to the Courts (Containerisation International, 26/11/1998). On the other side, the Confederation of National Industry argued that privatisation has not yielded benefits and would not do so until the labour issue is resolved (Journal Of Commerce, 20/06/1998). The Labour Court removed the union

control over hiring, which precipitated a strike. This led to a forced end to the strike (Journal Of Commerce, 19/08/1998). Despite this loss labour continued to resist privatisation throughout the remaining period of this study. There were four days in 1996, 21 days in 1997, over 19 days in 1998, 1999 showed some respite, but matters turned violent in 2000 with death threats and with gunshots fired outside the negotiations. (Containerisation International, 01/02/2001).

In 2000 and 2001, the battle lines were drawn around the same issues in Santos. “A massive bronze statue of a dockworker” is at the port entrance and is an “emphatic symbol of where economic and political power has resided” in Santos (Sao Paulo) (Journal of Commerce, 09/04/2001). Key to the conflict is the view of the employers that the port needs 5,000 workers while actually employing 11,000 (Containerisation International, February 1<sup>st</sup> 2001). Union power to control labour hiring is threatened under the Port Modernisation Law 1993 if implemented, and resistance continues; often through violent protests (Journal Of Commerce, 09/04/2001). This language of resistance and “civil war” is echoed by Varderlei de Silva: “what happened here was not privatisation, it was a process of demoralisation” (Journal Of Commerce, 09/04/2001). Dock labour did achieve concessions in the strike of 2000 (Journal Of Commerce online, 30/11/2000).

Devolution to the regions was another element of the 1993 Port Modernisation Law. With the arrival of left wing President Luiz Inacio Lula da Silva in 2003, and the appointment of his transport minister, Anderson Adauto, the regionalisation of CODESP<sup>59</sup>, which former right wing President Fernando Henrique Cardoso had put in motion, was put on hold. This reflected the increased “politicisation of the ports business stemming from changes in government”; and increased political interference as the “continent swings to the left” (Containerisation International, July 1<sup>st</sup> 2003). One industry report quotation captures the political conflict before the government changed as follows:

“The city is so dependent on the port and there are so many political undercurrents at Santos that some observers question whether the port will ever find peaceful industrial relations on the waterfront. Some are suggesting that the idea currently being mooted, of placing it under the control of the Sao Paulo state government, instead of being ruled from Brasilia, will probably only just

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<sup>59</sup> CODESP is the National Port Authority in Brazil.

replace one set of political cronies with another” (Containerisation International, October 1<sup>st</sup> 2001).

Labour mobilised in 2012 with “100-plus leaders from maritime labour groups” meeting to decide if they will “cripple” the port system with a national strike (Port Strategy, 06/06/2012). In contrast the President of the Brazilian Association of Port Terminals (ABTP) also criticised the outcomes from the 1993 Law by calling for a return to casualization in the form of a flexible labour pool describing dockworkers as a “retrograde workforce”, too old and not trained on new equipment.

Therefore, while the privatisation as a process continues, along with attempts to reform labour, resistance remains over two decades later. There are two interesting points in this. First, interest group representation can influence policy outcomes although in the case of labour, the impact may only be to delay the process. Second, even in the face of the Latin American turn to the left the process continues, delayed, but not reversed.

Hamburg as the largest German container port, and among the largest in the world, which has a long history of growth more than 100km inland on the River Elbe. In the 1970’s the mixed operator environment was regularised with the City of Hamburg taking control. Two state led entities control Hamburg Port. First, the Hamburg Port Authority performs the landlord and regulatory functions and second Hamburger Hafen und Logistik AG (HHLA) manage cargo operations and logistics. HHLA was wholly owned by the City-State of Hamburg until 2007 when 49.9% of the equity was offered for sale. This was resisted by the trade unions and the transaction was put on hold despite receiving six viable bids for the shares (Port Strategy, 01/05/2007). The workforce feared job losses and poorer working conditions consistent with the arguments put by unions in other countries. The nature of the German political and labour institutions facilitated a compromise deal after negotiations and the share offering was limited to 30%. The shares were offered to the general public rather than a trade sale, thus fragmenting the impact of private capital, at least for a time. Peter Schmutzer, managing director of BMT Transport Solutions, represented the views of capital by arguing that “it is understandable that this was the preferred route for the unions” (Port Strategy, 01/05/2007). Even in this most labour friendly institutional environment, port privatisation was resisted by the trade unions. Despite this resistance by labour, even if friendly by comparison with Brazil, their interests are accommodated. The net point of labour resistance stands. Equally, the contrasting accounts of labour

activism in Brazil and Germany are consistent with the argument that change will occur through political contestation and coordination. It also confirms that this level, in institutional terms, of policymaking is driven by political pragmatism rather than ideological conflict.

This account of domestic interest groups, particularly dock labour, has illustrated the symbiotic connection between labour reform and privatisation initiatives. It has also described the relevance of domestic context and institutional capacity in the resistance narrative. The special nature of dock labour as an account of globalisation is of interest in this interdependent market place. Finally, an account of domestic capital and security interest are explored with security discounted as an influence on policy; and domestic capital supported as an influence in a protectionist economy. The following sections will explore the regional convergence hypothesis further.

#### **6.4. Country Clusters**

The governance categorisation in Table 6.5 is based on an assumption that all countries will converge on a normative value. The normative value is assumed to be the 'landlord' model, which within the dependent variable has a recognised minimum value of 3.27. Countries equal to and above the threshold are described as 'normative' and those below are coded 'non-normative'. This 'landlord' policy convergence thesis tends to be argued in terms of democracies; however, as argued here each of the non-democratic states must connect with the capitalist trading regime in order to facilitate imports and exports. This first analysis suggests that there are a number of outliers when the data is organised into broad political and economic institutional categories. Table 6.5 highlights the extent to which countries have reformed their respective container port sectors in terms of the 'landlord' threshold value.

An alternative explanation for such policy variance is that there is more than one norm for port policy frames suggesting a variety of normative values based on regional clusters. An extended typology, based on the earlier studies of Bennathon and Walters (1979) and Lee and Flynn (2011), is described in Chapter 2. They are both based on essentially the political attitude to state intervention in the port market through price regulation and/or investments. This perspective on state or market coordination of development and operation is extended to add one more grouping to the typology. It is set at a high level of abstraction to test for evidence of convergence. It does not dismiss

other more extensive typologies such as the five-category geo-governance model proposed by The European Sea Ports Organisation for EU ports. (ESPO, 2010:7).

**Table 6.5: Port Governance Profiles for 2010**

National Profile	Countries by port model
<b>Democratic and open to markets</b>	<b><u>Normative:</u></b> Australia, Belgium, Brazil, Canada, France, Japan, Netherlands, Spain, United Kingdom
	<b><u>Non-Normative:</u></b> Germany, Indonesia, Italy, Korea (South), Philippines, United States
<b>Democratic and restricted market access</b>	<b><u>Normative:</u></b> N/A
	<b><u>Non-Normative:</u></b> India, South Africa, Thailand
<b>Non Democratic and open to markets</b>	<b><u>Normative:</u></b> N/A
	<b><u>Non-Normative:</u></b> Singapore
<b>Non Democratic and restricted market access</b>	<b><u>Normative:</u></b> China
	<b><u>Non-Normative:</u></b> Dubai, Egypt, Malaysia, Oman, Saudi Arabia, Sri Lanka

*Note: The national profile is a categorisation of countries based on the economic and political indices in Table 6.1.*

The results based on a normative policy value are of interest as there are some notable outliers. The United States is non-normative while China scores above the normative value. The context for each of these is explored further in the regional cluster analysis below. The selected ports are drawn from the same data as the quantitative study and are summarised in Table 6.6. The top fifty container ports in 2007 provide the main filter followed by selecting the largest port from each country in the dataset. By container volume, the selection catches over seventy per cent of global merchandise trade while only covering ten per cent of all container ports. What is also interesting is how the relative volume has not changed much, down three per cent, however they are now shipped through an ever-smaller proportion of container ports.

**Table 6.6: Regional Distribution of Top50 Container Ports (Percentage of global TEU)**

<b>Region</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2010</b>
North America	22% (14)	16% (14)	10% (11)	6% (6)
Europe	22% (16)	16% (11)	12% (12)	8% (8)
Asia	22% (12)	35% (17)	42% (23)	49% (26)
Middle East	2% (2)	2% (3)	1% (1)	6% (7)
Latin America	2% (2)	2% (2)	1% (1)	1% (2)
Africa	1% (2)	1% (1)	1% (1)	0.5% (1)
<b>Totals</b>	<b>74% (50)</b>	<b>74% (50)</b>	<b>69% (50)</b>	<b>71% (50)</b>
<b>Top50 as per cent of all ports</b>	<b>18% (274)</b>	<b>13% (371)</b>	<b>9% (541)</b>	<b>10% (511)</b>

*Source: data on TEU by port drawn from [www.ci-online.co.uk](http://www.ci-online.co.uk) ; Values in parentheses are the number of ports in each category.*

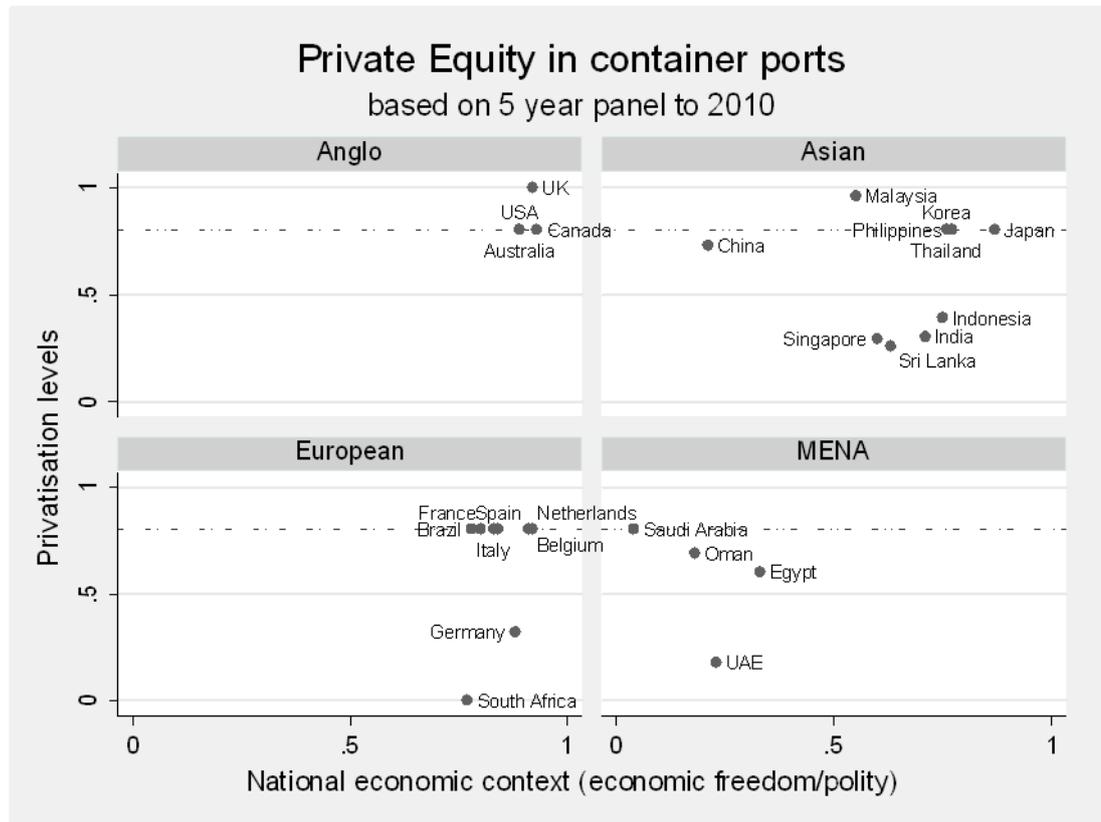
In 1980, eighteen per cent of ports were included in the leading fifty with only ten per cent in 2010. What is also noteworthy is the dramatic decline in developed regional volume share in favour of mainly Asia and to some degree the Middle East. It is this shift in trade profiles that necessitates the extension of the cluster definitions to include Asia and the Middle East (MENA). The ten per cent of ports selected reflect the most globalised ports in terms of trade connectivity and technological sophistication. More particularly, they represent the main hubs in the global supply chain of general goods. Thus, hub ports such as Singapore and Sri Lanka handle significant transshipment cargo rather than outputs or inputs of the domestic economy.

There is a wealth of comparative information in the dataset compiled. By comparing port policy outcomes with the political and economic institutional context a number of issues can be examined. The context variable is constructed by adding the economic freedom index, as adapted from Table 6.1, to the Polity value and dividing by 2. This is then normalised to a scale of zero to one as is the policy outcome variable. Thus, the regional convergence argument can be examined to add value to the statistical results in Chapter 5. Following the theories associated with varieties of capitalism literature the

essential differences between the political economy contexts of the groupings is based on an assessment of whether the market is coordinated by private sector firms or the state; and on the extent to which the state in the latter category is prepared to intervene. The Anglo-Saxon group assume that the private sector will coordinate the economy. The other three groupings assume that the state will coordinate but to varying degrees. Thus port policy variables, which are constructed on the same premise of market/state power, are expected to cluster in similar fashion. As time is always a key variable in policy studies the snapshot implied by the comparisons in this chapter do not allow for progression subsequently.

The standard public narrative suggests that many of these global ports are privatised. When argued in the specific context of private control over cargo handling operations, and related superstructure, then Figure 6.5 confirms that there is a strong policy trend towards privatised cargo handling. Indeed one or more of the top six international container terminal operators (ITO's) are represented in all the ports in the sample, as evidenced by a search of the relevant port and International Terminal Operator (ITO) websites. They function as licenced operators or concession holders based on control over operations and property. The calculation of the equity variable is described in more detail in Chapter 4. What is important is that a number of 0.8 represents full privatisation of cargo handling. Values higher than this include an element of port authority privatisation. The United Kingdom is the prime example of this privatisation for its largest container ports. All ports in the sample show a policy framework that facilitates some private control of cargo handling operations, which in revenue terms represent about eighty per cent of a port's business. The exceptions examined earlier, South Africa and Indonesia, have moved partially or not at all in this policy direction, for very different reasons. Thus, any correlation in the data models is based on a composite policy outcome measure constructed from a unit level combination of market sub-variables. It is interesting that in the MENA cluster there has been a policy shift to the market by allowing ITO's to lease and operate port authority provided terminal infrastructure. When this is combined with the other elements of the privatisation metric this same group fall to the bottom of the scale suggesting that such a policy is accompanied with a high degree of state regulation.

Figure 6.5: 'Real' Privatisation



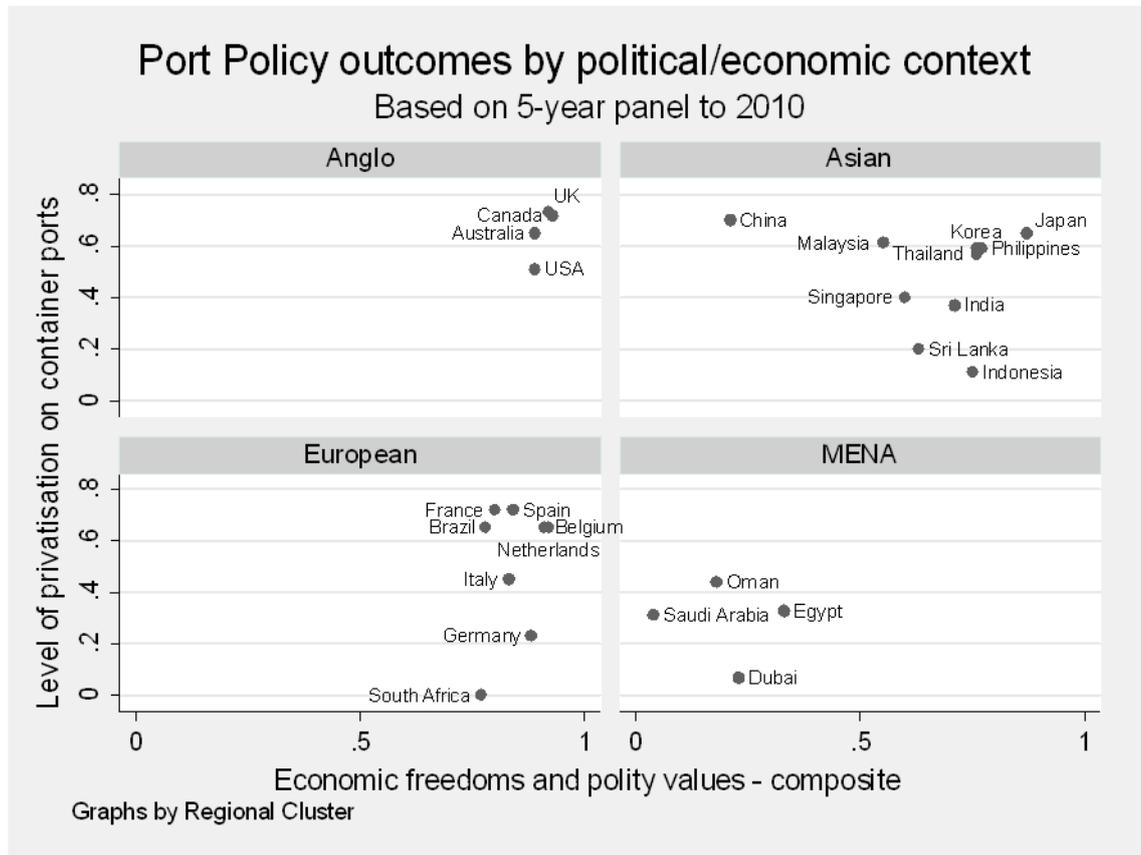
The Anglo countries, which are the most democratic and commercially open, are all privatised when measured as equity interests. In the European cluster, which includes former European colonies, most have privatised cargo operations. South Africa is an outlier based on labour resistance and apartheid issues, which is discussed further in the specific case analysis. Germany (Port of Hamburg) is an outlier in that a combination of the port authority and cargo operations was offered to the market through a thirty per cent public share offering, however labour institutional coordination has limited the pressure to further privatise. The UAE in the MENA cluster is Dubai Port who is also the owner of a top four ITO known as DP World. Thus, they are a major market supplier but in this case to themselves through a state owned vehicle. Equity profiles in Asia reflect different stages in policy development, which may correlate with macroeconomic development. The points of interest are that China has a regulated market based approach that includes holding equity stakes in the cargo handling business through joint venture vehicles. The original South East Asian tiger group cluster together with the exception of Singapore. As with Dubai the Port of Singapore vehicle also owns one of the largest ITO's so self-handling is the normal, although not exclusive, approach. India and Sri Lanka can be considered as policy paths that have a strong security focus while Indonesia, a case country, is in political and economic

transition. It is possible that this sub cluster may graduate to the same outcome as their peers in the future. This equity profile is useful in examining the conventional privatisation hypothesis but ignores the wider policy decision frame for port governance.

When ports are considered as a system made up of many complementary services then the results are less clear. The measure employed in the quantitative analysis, normalised for graphing purposes, is examined again across the four proposed clusters. It is common to see port governance regimes operating through some form of corporatized business model but still remain a state owned and controlled enterprise. This implies an intention to control the port service market while commercialising the various activities. However, the key point is that the state remains in control. Including this and other variables across competition, property and regulatory functions produces a composite measure of private sector control of the port service market. Plotting this against a composite of political and economic openness across the four clusters produces the results shown in Figure 6.6. The patterns are similar to those based on equity values alone however there is a clearer representation of policy variance. Indeed, it is clearer in the case analysis that the convergence of values across three of the clusters (excluding MENA) to higher openness and higher privatisation occurs for cluster specific reasons.

The Anglo group, which generally start from the place of public ownership and control, have adopted the clothes of liberal market policies more readily than other groups. This includes complementary labour reforms. They tend towards competitive landlord governance frameworks with investment obligations transferred to the private sector. A case of radical reform despite militant union resistance is the United Kingdom. Again, the political calculation after a period of extreme discontent empowered the conservative government to push marketization reforms through as part of a wider ideological project. The USA appears to privatise less than its peers do.

Figure 6.6: Policy Convergence



This is a reflection of the highly regulated US port sector for development and pricing. In the USA, the federal administration remains interventionist and there appears little motivation to make the changes that occurred elsewhere. The broader policy objectives for the cluster are to be profitable, self-funded, and take investment decisions based on market rates of return. There is no apparent national interest objective, although public interest is still common in the discourse. Pricing is based on full cost recovery (user pays) plus a return attractive to investors. The United Kingdom appears the most privatised and the current London Gateway container development, including industrial development, is managed by a primary developer and investor, DP World (Guardian, 26/05/2012). The already privatised ports appear not to have driven this additional market capacity, which includes substantial investment in marine infrastructure, although the selected port in the study (Felixstowe) did invest in additional terminal capacity. The privatised ports are free to do what they wish with port lands and some are now property business operations (e.g. Peel Ports). In short, the liberal model is common; however, short-term market dynamics do not fit in the longer term. Thus,

requiring some form of state intervention to maintain the capacity and competitiveness of the domestic container market.

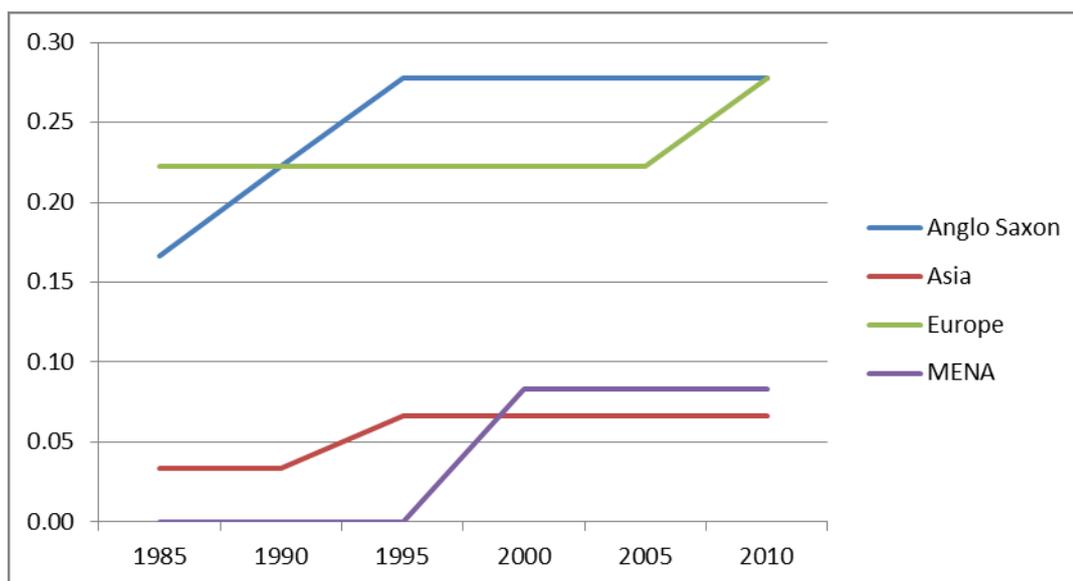
Northern European ports stem from the city ports of the Hanseatic League. They often remain under the political control of municipal authorities. They tend towards social democratic political regimes and corporatist arrangements. Port Governance tends towards a highly regulated landlord model, with interventions in infrastructure delivery. Quite often ITO's are present alongside a publically owned Terminal Operator. This is the case in Hamburg, Germany. In Germany, labour institutions are embedded in a form of social partnership and changes are negotiated and consensual within the institutional framework. There is evidence of marketization but with the agreement of the unions. Many of the ancillary services in the European cluster are provided by the state and/or municipality such as pilotage. The social norm is that the state provides port infrastructure based on the social conception of public goods. Therefore, ports are considered to be part of the social infrastructure where profit is secondary to a wider economic contribution. Nonetheless, the port entities tend not to be loss making and are often corporatised. Therefore, they function as commercial operations with the funding of underlying marine investment provided by the relevant level of the state and appraised based on return to the regional economy.

Lee and Flynn (2011:796) conclude that the "Asian Doctrine contends that port assets and related infrastructure should be in the public sector to avoid the risk of monopolisation by private firms, and seaports should be regarded as fundamental assets of national security for the national economy". Traditionally state intervention is the norm e.g. Korea, however for a variety of local factors there is some changes to allow regulated private sector involvement. Generally, ITOs are present but as minority partners, and what changes have occurred are consensus based and can reflect exogenous pressures such as aid conditionality. China has involved the private sector in port operations through Joint Ventures but governance is still controlled through State Owned Enterprises. The Asian model reflects public ownership, supportive private capital in cargo handling, the centrality of economic policy making as the driver of port development, extensive capital investment by the state in waterside and landside infrastructure, regulated through specific pricing mechanisms. Therefore, the states' profiles are multi-dimensional as port designer, developer, operator, price maker, mediator, and investor (Lee and Flynn, 2011:798).

In the case of the Middle East and North Africa there tends to be little issue with state investment. This group is also non-democratic and therefore, any analysis based on varieties of capitalism, through firm responses to policy, is theoretically problematic. However, the focus in these data is on market characteristics rather than the wider institutional frame of the political structure. The economic objective is still assumed to be about generating an economic return to the economy. This is not necessarily the same as national economic welfare as the narrow profile of the political regimes may mean that the goal is to generate and retain economic rents for the domestic elite. Where market efficiency is a key driver then expertise is contracted in without any real dilution of ownership and political power. Thus, in non-democratic states the concepts of social overhead and public goods have no real meaning except if they are adopted to satisfy the needs of a particular support constituency. The selected ports in this cluster are trade mega hubs for two main reasons; first, logistically they are situated on global trade highways; second, the high initial costs of development are provided in a timely fashion by the state without market based investment returns and time limits necessarily attached as conditions. Control may be applied through a corporate vehicle fully owned and controlled by the state. Such corporate vehicles may well mimic capitalist models. State control will usually extend to operations as well as landlord and regulation. The grouping is included for completeness but in fact, the role of the state is to reflect the interests of the ruling elite and may extend beyond domestic boundaries in scale of intervention/ownership. It is not so much a policy paradigm as a grouping of states around common political and economic characteristics.

Policy changes through political contestation in varying political and economic contexts. Change also occurs over time and at different rates. Figure 6.7 charts the movement in state policy towards the port sector in terms of planning and development. As discussed in Chapter 4 it is common for states to maintain some veto power to ensure, inter alia, that projects are consistent with broader economic development plans, avoid duplication of investment, and are politically acceptable. This chart confirms that some power to drive development decisions has transferred to the private sector but mainly in the context of terminal and superstructure projects. Marine and a material amount of terminal infrastructure projects tend to still require political approval.

**Figure 6.7:** *Change in Political Veto Variable over time*



**Source:** The 5-year average values are taken from the panel dataset (see Chapter 5)

What is interesting to the regional convergence hypothesis is that four clusters may only be relevant for a period of time in economic history. There appears to be a trend to two groups. It runs against the varieties of capitalism logic with Europe, a state coordinated economy merging with the Anglo model, a market coordinated model. What may explain this apparent convergence is the influence in the group average of a particular interventionist public infrastructure paradigm in the United States. This has been characterised as “Public ownership, private operation” (Fawcett, 2006). Nonetheless, this research does not reject the premise that further policy convergence will occur although such varied historical contexts would suggest it would take a considerable amount of time.

The evidence Thus, far, including the data results in Chapter 5, support the argument that policy frameworks tend to converge around values common in the neighbourhood. This in turn supports the path dependent proposition that where countries have similar historical and social contexts then economic policy outcomes will be similar.

### **6.5. The qualitative evidence**

This comparative case study provides a means of comparing outcomes using categorical variables to establish trends and then to seek evidence to support findings from these trends. There are two strands to the comparisons. First, documentary evidence from a range of countries are used to assess the regional convergence and labour resistance

hypotheses. Second, three outlier countries from the quantitative analysis are considered in greater detail.

From a political perspective, it may be argued that policy is trending towards a market-coordinated model with the full liberal, market coordination of all functions model, beyond all but the United Kingdom. In the detailed case work there is evidence of spatial clustering around particular institutional packages in the political economy. There is also evidence of different paths to the same policy outcome. This provides a more interesting insight into the dynamics of political support calculations in policy development, deeper than the final value. In other words, there may well be a long-term trend to policy models with significant common characteristics but domestic politics will continue to play a real role in detailed policy implementation. These data suggest that we are observing a trend towards four distinct forms of port governance based on different conceptions of public goods and social overheads.

Assuming the divergence argument then path dependency theory supports the contention that nation-states will maintain significant distinctiveness in policy formation because of historical and social context. Strambach (2010:27) argues that port actors strategically stretch institutional arrangements to their purpose, without (necessarily) breaking out of the dominant development path; and “institutional dynamics are to a large extent place dependent”. He further posits that region specific institutions may reflect common social conventions and historical traditions (Straumbach, 2010:28). Hence, the cluster argument closely relates to geographical dispersion (Notteboom et al 2013). Both the qualitative and quantitative evidence support the regional rather than global convergence hypothesis.

The counter argument to lock-in path dependent theories is that it assumes that only an exogenous event can change the cost equilibrium. This ignores the “transformative capacity of agency” (MacKinnon et al 2009; Notteboom et al, 2013). The evidence in this study do not dismiss global convergence as in the very long term policy convergence may occur, perhaps driven by agency, Thus, breaking out of path dependent policy development. In the case of the United Kingdom, the common argument is that systemic change broke the path dependent lock-in of port governance regimes. This is in part true, especially in terms of labour. However, there is also evidence of ports continuing to reform along a non-state policy path. In historical context, in discrete waves of globalisation, each nation-state has maintained its

governance distinctiveness while adopting common management and technological solutions.

What is clear from the data for the largest and most globalised container ports is that policy frames cluster around geographical norms that in turn reflect similar economic and social contexts. What is also clear is that labour will always resist privatisation until defeated in a political context and a suitable compensation package is agreed. In sum, controlling for variables such as domestic interests, financial crisis, security and aid conditionality, port governance models will converge on a regional normative outcome over time. These models differ mainly in their attitude to state intervention in the provision of major infrastructure through direct investment, cost recovery models, and the profit motive. What is common to all models is that the state will maintain some measure of political veto of port projects given their direct relevance to the trading economy and social welfare.

In theoretical terms the varieties of capitalism analogy holds true in this account of policy change. Specifically the evidence is consistent with versions of varieties of capitalism that posit multiple capitalist models, Thus, countering the proposition that international capitalist norms diffuse globally. However the data is industry specific, based on democratic and non-democratic countries integrated into international trading networks, and focussed on a specific period of time. Therefore, it is not appropriate to suggest that regional convergence is a permanent explanation as further international convergence may occur in the future. Equally, labour resistance will at some point be accommodated into at least the private operation of container terminals. These points will be explored further in the concluding Chapter 7 to follow.

## Chapter 7: Policy development in public infrastructure

Ideational globalisation implies a trend towards common practices in political, cultural, and economic activities. In the absence of full convergence, observable reality suggests that we may be either witnessing the evolution of an international society, albeit richly diverse, or the resilience of nationalist ideas that result in significantly diverse units within an international system. Ideas of policy change for public infrastructure in the decades since 1980 reflects wider global trends towards private sector participation in public services provision and infrastructure operation. This is equally so in the transport sector, that includes sub-sectors of roads, railways, airlines, airports, shipping lines and seaports. Under the assumptions of a neo-liberal convergence vision of globalisation, traditional public goods arguments are rejected and greater private sector participation is deemed as best practice: a socially appropriate policy solution. Amidst the political rhetoric of ‘selling the family silver’ and ‘loss of sovereignty’ to the market there are observable policy differences across nations, between sectors and between levels of the economy. The differences are also observable over time. In order to empirically measure these variances and to better understand the adoption, or not, of such normative solutions in the international political economy we need to understand how and why policy change occurs within the domestic political process; and whether there is any substance to the argument that states are converging on common policy outcomes. We also need to develop methodological tools that blend appropriate insights from different disciplines and academic schools. This thesis makes a contribution by proposing a particular set of theoretical assumptions and original data solutions to answering the basic research questions.

Maritime trade supports the essential trading dimension of the world economy with more than eighty per cent of trade travelling on ships and through ports (UNCTAD, 2010). Container ports and specialised vessels provide the means for basic supplies and products for manufacturing and retail. They are an essential part of the international political economy. International container ports also reflect changes in the service delivery because of functional trends that require greater efficiency and effectiveness; and they reflect the demands of market innovation and technological developments. Interestingly the largest ports are not necessarily situated in developed democratic states, as location is more likely a function of logistics and production cost calculations. Thus, all the dimensions of the globalisation debate are present in this sector of the

international political economy. This represents an excellent opportunity to examine the dynamics of policy reform in an innovative and relevant setting.

There are two critical problems when examining policy development for public infrastructure from the political and socioeconomic perspectives. First, we need to be able to measure actual, as implemented, policy outcomes. This will allow researchers to seek explanations for the divergence in policy outcomes between best practice design and its domestic application. However defining a policy outcome in a manner that allows consistent cross-national comparison is not a simple task. Each policy outcome will have a local flavour and there are choices between focusing on legislative frameworks and the more messy reality of varied implementation. The domestic context and policy outcome will reflect local politics, and how the market adapts to change, that may result in a sub-optimal outcome. The metric for actual policy outcomes can then be applied to cross-national comparative research. The assessment applied here captures the relative mix of private and public power in the container port market place, which is of value to those studying the dynamics of the state/market nexus in the international political economy. This method can be adapted to other modes, and nodes, of transport. This contributes to solving the second problem, that is, the scarcity of time series cross-national research, by including states that vary in their political and economic institutional structures.

This thesis makes a significant contribution to our understanding of international port governance reform with an innovative approach to policy measurement, a new cross-national dataset, and a historically contingent theoretical approach to explaining policy change in global container ports. The evidence presented supports the propositions that regional rather than global policy convergence is present, and even within regions labour continues to endure as a focus for policy resistance. The evidence also supports the theoretical proposition that policy dynamics are marginally driven by coalitional politics among actors who have the institutional capacity to influence the outcome. This provides a significant improvement in our ability to understand the politics of change, mostly defined as the devolution of functions to the private sector, and the effectiveness of the resultant policy. The findings are of value to those charged with policy design of governance frameworks that will manage effectively the mix of private and public interests in public infrastructure provision and operation. It will also be of value to market participants in due diligence work as an analytical tool to assess political and policy risks.

The largest international container ports provide a useful case to explore issues of globalisation and interdependence. Free trade policies, promoted by powerful states and international institutions, have facilitated the development of extensive maritime networks. This growth in connectivity is reflected in longer and more frequent sailings to all points across the global economy. The largest container ports function as First World logistics nodes in global trade networks despite many being from the developing country category. In political terms, public policy sets out the terms on which the state, democratic or otherwise, can participate in the capitalist market trading system. In explaining policy difference cross-nationally there are two apparently contradictory forces to account for. First, the container represents a paradigmatic technological shift in trade logistics. The container is an innovation that revolutionised how both shipping and ports handle cargo whereas all previous innovations focused on ship management, for example, sail to steam to fossil fuels as a source of energy. Such a paradigmatic shift might be expected to produce a radical response that cross-nationally results in policy convergence based on global perceptions of appropriate behaviour. This convergence hypothesis is however not supported as the evidence in this work suggests that such policy changes are subject to domestic structural and agency forces that result in divergence around policy variants consistent with neighbourhood clusters based on regional perceptions of appropriate behaviour.

Domestic politics provides the necessary insights into policy formation rather than change as an event; and neo-institutional theories provide the lens to examine the role of structure and agency in the process. The literature review, in Chapter 2, describes the resultant focus on historical institutionalism as a basis for explaining policy variance in international container port governance. The methodological discussion in Chapter 3 describes the mixed method research strategy along with the design decisions taken for the data modelling in Chapter 5 and the analytical narrative in Chapter 6. The key policy outcome metric is described and profiled in Chapter 4, which provides clear evidence of policy variance cross-nationally. In particular the policy process in the comparative case studies of Chapter 6 support the proposition that such public institutions are self-reinforcing and respond to critical events, in a reactive pattern constrained by the domestic package of national economic and political institutions. Each domestic package of political and economic institutions reflects historically and spatially contingent views of what is in the national interest. This can be described as economic nationalism privileging neither protectionism nor openness (Helleiner, 2002).

This chapter draws together the primary themes of the thesis into a cohesive presentation of the arguments, the analysis, the findings, the academic contribution, and the practical implications of the research. The chapter proceeds through a restatement of the theoretical approach and the related methodological challenges in testing the proposed explanations. This is followed by a thematic discussion of the findings and the contribution made to academia. Finally, the implications of the findings are placed in context, and future avenues of research are explored.

### **7.1. Theory applied and why**

The literature on ideational diffusion and domestic policy responses, described in Chapter 2, is varied in terms of method, findings, and theoretical constructs. This variance is in part due to the sectors of the economy studied, the time frame of the analysis, the locations, and the particular level selected in the political economy. In part, it is also due to ontological and epistemological differences. Within the positivist frame, two epistemological differences are relevant. They differ on the emphasis they place on the state as a unit of analysis. They also differ in how they privilege the international over the domestic and vice versa in institutional analysis. Within the post positivist ontology the most pertinent difference is with the positivist assumption that interests are fixed. In teasing out the dynamics of policy change in ports policy a number of assumptions are made here that are not constrained by the limitations of one school over another. They are theoretically consistent and provide a logical basis for analysing change in public infrastructure policy.

This research does more than reach across academic divisions, as it is also multi-disciplinary. It makes use of work across management, economics, and political science disciplines. This eclectic blend provides an innovative perspective on how and why domestic public infrastructure policy varies cross nationally. It also provides an innovative perspective of how policy is measured, post implementation, in industry terms that allow for nuance in explanation and difference in quantum to be observed. This is mindful of academic critiques of policy outcome metrics where the problem highlighted in testing explanations is misspecification of the policy outcome variable (Howlett, 2009:244). The pragmatic research strategy described in Chapter 3, based on an internally consistent theoretical frame, also borrows analytical tools from other research contexts where appropriate. For example, the varieties of capitalism theories (Hall and Soskice, 2001; Amable, 2003; Hall and Thelan, 2009; Amable and

Palombarini, 2009) that regard capitalism as having more than one distinct version in the international political economy is echoed in maritime economic theories of regional policy paradigms in port governance (Bennathon and Walters, 1979; Lee and Flynn, 2011). Blending the research tools and heuristic devices, described in Chapters 2 and 3, provides valuable insights into policy variance globally and possible convergence regionally. In the immediate sections to follow, relevant schools of thought and academic disciplines common in the globalisation and privatisation literature are summarised to provide context for the research decisions taken. This is followed by the particular research context of the container port sector.

Political scientists acknowledge an increasing international economic and political interdependence (Keohane, 1988). Crucially, realists will argue that the state and state power is still the central dynamic in international political economy (Gilpin, 2001:21). Liberal institutionalism equally privileges the state and the international arena over the domestic and domestic agency. Open economy politics describes a policy development process where ideas are proposed by member states in international institutions, are contested among other member states, agreed upon, and transferred down to all member states (Lake, 2009). This privileges the state and also assumes that all states are equal. It is difficult to explain enduring difference in economic institutions based on such assumptions, and in particular when focussed on micro-economic interactions such as those that occur across international container ports.

In terms of ideas, neo-liberal or otherwise, there is a considerable body of work that considers the mechanisms for their diffusion across nation-states (Simmons et al, 2008). The ideas in the case of international container ports tend to be framed as appeals to modernity, competitiveness and industry best practice (WBPRTK, 2005). The implicit assumption is that all economies studied are capitalist or are integrated into the capitalist system for international transactions, and this assumption is re-enforced by an over-reliance on datasets based on liberal democratic capitalist economies. The mechanisms that are common in the literature are competition between states for position and power in the international economy; coercion by other states or international institutions to comply with an agreed regime; rational learning through studying the actions of competitors and neighbours to identify best practice for domestic implementation; or emulating the practices of perceived leading states, or neighbours, based on a bounded form of learning constrained by context (Simmons et al, 2008). This latter process is interesting as it allows for sub-optimal outcomes and Therefore, loosens the state level

power maximising premise in rational calculations (Simmons et al, 2008). It is a diffusion mechanism that is most appealing to constructivist assumptions as the process logic assumes states are maximising their interests, as constructed domestically.

However, one does not need to take on post positivist ontology to consider interests as a function of time and space. In the eyes of those interested in Constructivist Political Economy, constructivism is “simply the inevitable paradigmatic successor to structural realism” (Abdelal et al, 2005). Another interesting theoretical, and practical development, divides the process into two parts. An assumption is made that international regimes and/or policy norms are developed and subsequently diffused in the international economy, irrespective of any prior negotiation process. There are many theorised diffusion and transfer mechanisms post agreement but essentially, they set a domestic agenda. By taking the agenda as already set, it is possible then to limit the process study to the domestic political response to the agenda (Doyle, 2010). In the case of macroeconomic policy change, this methodological approach is used in explaining changes in domestic capital control policy (Kastner and Rector, 2003:4). In the case of international container ports, there is ample evidence of new public service management coupled with the deconstruction of public goods arguments to justify the parsing of the process between the international and the domestic. The domestic box can now be opened while controlling for the international.

State interests are generally represented as part of a power maximising dynamic with each unit in the international system seeking to gain relatively or absolutely. Power in this context is represented as economic capability and Thus, the larger economies have the greatest power. Conceptualising the system as having a wider body of actors than nation states allows for a more reflective view of interests, and crucially their flexible adaptation to changes in the international political economy. In this work arguments of economic nationalism and complementary institutions are taken together to produce a proxy for state interests. Economic nationalism is taken as a collective view as to what is appropriate in the economy, and can range from both protectionist sentiment to liberal open economy demands. This is discussed in Chapter 2. Complementary institutions as a concept is taken from varieties of capitalism theory as described in Chapter 2. By identifying economic institutions that are relevant to the container port sector an index of market openness is used as a proxy of state interests. This variable changes with adaptation in the economy and reflects implemented policy rather than rhetorical statements as to economic strategy. This view of interests reflects the domestic

institutional structure and implicitly reflects interactions between the economic institutions. This 'soft' approach to interests blends positivist and constructivist political economy assumptions and, crucially, they are measurable at points in time and space.

Structural realism provides the theoretical frame for the analysis as it accommodates domestic institutions and non-state actors in explanatory models (Amable and Palombarini, 2009). Domestic institutions include the economic as well as the political type. Non-state actors include any group that has an interest in the policy outcome (Beyers and Kerrimans, 2004). Labour and capital are the broad groupings included here. Specifically dock labour, domestic shipping, international shipping lines, and international terminal operators. The approach is still based on rational calculations as the assumed dynamic within the change process; however, it is actor based and does not presume a single causal direction or a one-dimensional interaction. Implicit complex interactions are difficult to 'unpick' in a dynamic process of rational actors pursuing their own self-interests, nonetheless the theoretical logic of neo-institutionalism provides the means to incorporate such complexity (Pierson, 2000). This is developed at length in Chapter 2. The crucial assumption is that a motivated actor with the required institutional means has the potential to influence the policy process, right through to implementation mechanisms. Given the varied nature of domestic institutional contexts, varied outcomes are expected. Thus, historical context defines the structural frame within which policy contestation occurs. This structure is a mix of political and economic institutions. The political frames the decision process, while the economic frames the actual outcome. The economic structure also conditions the policy debate, as complementary reforms are often required to optimise the policy impact. This is a key theme in the port sector with the relationship between governance and labour reform highlighted through other works and the evidence in these data (Notteboom, 2010:60).

As discussed in Chapter 2 the literature has often shown that levels of democracy and decision veto points provide substantive explanatory power for policy change, typically measured as an event. This work does not dispute these findings. Indeed the data shows significant support for these hypotheses. However, this work provides additional explanatory power by including relevant actors and economic institutions, which is necessary when incorporating non-democratic states. Other literature argues that the change process is driven by partisan contestation and that measures of left and right politics provide explanation for change. These tend to focus on higher institutional levels in the political economy of developed states, for example capital control openness

(Kastner and Rector, 2003; Mosley, 2005). These data do not support partisan politics as part explanation for port governance policy direction. This is perhaps not difficult to rationalise given the range of political regimes in the data, the time frame of the study, and by pragmatically taking the modernisation agenda as given. The approach does provide a means to drill into the domestic and make rational comparisons cross nationally. The results point strongly to the influence of local context, which is historically contingent, as evident from varied institutional contexts.

Path dependency is the generic term for this theoretical approach. However, path dependency is not a theory in itself (Kay, 2005). Historical institutionalism provides the appropriate theory descriptor for this work. One particular strand of historical institutionalism is that described in the literature as varieties of capitalism. It is drawn on in this work as analogous to maritime economic literature that describe variety of port governance frames based on differing domestic views on state intervention in the port infrastructure sector. In mainstream varieties of capitalism literature, two ideal types of capitalist systems are theorised as the models to which all states will progress towards (Hall and Soskice, 2001). They are differentiated in how the economy is coordinated, one by the state and one by the market. This is analogous to differentiating port governance types by the level of state or market coordination in the sector (Bennethon and Walters, 1979; Lee and Flynn, 2011). Settling on two categories is problematic in the general economy (Amable, 2003; Amable and Polombarini, 2009) and in port governance types (Lee and Flynn, 2011). Expanding the typology is justified balanced by the need for a parsimonious proposal. Typologies are best constructed through empirical work that allows for wider differences other than the two ends of the spectrum (Amable, 2003). Hence, in this work, a four-part country typology is described and their efficacy is discussed later in this chapter. First, it is important to reflect on historical institutionalism as a frame to explain policy variance in international container ports.

Institutions, as policy instruments and practices, are a product of the past. The concept of the past assumes that the measure of a policy package at any point in time is a function of the previous institutional package. A policy package is defined as a set of institutions at a point in time that together coordinate a particular market. Past outcomes limit the range of future policy choice sets (North, 1990, 1992). The impetus for change arises from an inherent instability or fluidity in a complex interactive environment. The assumption is that actors assess the relative costs and benefits of change and lobby

accordingly. Where transactions costs are high then institutional stability is likely. The historical narrative of change in Chapter 6 describes a process where labour resistance effectively shifted the balance of cost and reward, Thus, incentivising capital to lobby for privatisation (Reveley, 2008). Equally, when labour institutions are also reformed transaction costs are lowered. This leads to the conclusion in Chapter 6 that labour interest representation can only delay, and perhaps modify ports policy. This dynamic process also suggests that policy equilibrium is temporary. This time factor is interesting in the port environment. In the world of international capital, funds can move instantly leaving states and industry actors vulnerable. In the case of public infrastructure, these data illustrate the longer time frame for the container port sector. While trade literature described in Chapter 2 points to the ever-faster evolution of shipping and port technology, it is still dramatically slower than other sectors of the economy. This time variable explains the slow moving nature of policy development where policy and projects take many years to develop (Cheon, 2007).

In this environment of slow but fluid policy change, the role of ideological politics is discounted given “the proximate objective of all governments is to retain office – irrespective of whether the mechanisms for deposing governments are elections, palace coups or popular revolutions” (Garrett and Lange, 1995:629). Nonetheless, there is a strong positive relationship in the data between political institutions and ports policy balanced somewhat by a negative relationship with the number of constraints on executive action. This is an interesting finding in itself and consistent with findings in the literature noted in Chapter 2, which tends to also support the partisan model of change. The evidence presented in Chapter 6 points to a wider political coordination process, beyond the immediate political decision process. Ports policy is developed by policy makers seeking continued or increased political support, independent of elections. This is supported by evidence in Chapter 6 of policy stability when power transferred across ideological boundaries.

In recent research in the varieties of capitalism field, scholars have highlighted a gap in knowledge relevant to this research. They contend that there may be a greater understanding of policy change by linking ‘institutional and coalitional’ politics (Hall and Thelan, 2009; Amable and Palombarini, 2009). Coalitional politics in this context means the coordination of various interests by policy makers to produce policy equilibrium. This may result in stability or change, but there is no evidence in these data. Policy development continues on an historical contingent pathway and is not

ideologically driven. This proposition depends on the assumption that policy paths themselves are stable.

## **7.2. Ports and change**

In the port sector, there are a number of paradigmatic events that are accommodated in the thesis. First, technological innovation is often regarded as a critical event that breaks down historical pathways. In these data and the thematic analysis of Chapter 6, this is explored. There are a number of technological innovations in the maritime sector over relatively recent history. They are mainly focussed on shipping technology such as the shift away from sail to give more reliable transit times; and the enhancement in information flows in recent centuries facilitating the matching of cargo and vessels (Stopford, 2009). Each has dramatically changed the maritime sector but they did not have the equivalent impact on ports. The key innovation for both shipping and ports was the introduction of the standardised freight container. This lowered the costs of cargo handling in the shipping sector, bringing an increased focus on port efficiency and effectiveness (Brooks and Cullinane, 2006a; 4; Clark et al, 2004; Anderson and van Wincoop, 2004). Containerisation also facilitated the rapid growth in international trade. Thus, increasing market demand for port services. With this increase in demand came an increase in market power, Thus, influencing the reform agenda.

Second, security interests have an observable presence in the history of ports. For one they are strategic locations and a clear example of this is the USA where the military establishment is a critical part of the port development institutional structure. Marine infrastructure projects are subject to survey and approval by a subset of the Defence Department (Fawcett, 2006). The other instance of security interests appearing in the container ports sector is when political actors are troubled by the name and origin of market participants. Again, the leading example is the USA where Dubai based DP World was obliged to exit the market post 9/11. The data modelling in Chapter 5 shows some impact on port reform when the military establishment has a larger role in the economy. Although the evidence does not show a high degree of influence, it is certainly a valid variable in this analysis.

Third, financial crisis is a potential critical event suggesting a shift in policy from any historical path. Given the long term nature of policy and project development a long-term measure of financial crisis is used. Where countries have three or more years of negative economic growth it is assumed that systemic reform will feature on the agenda;

and assets such as port infrastructure will be for sale. Of the few countries in these data that satisfy the criteria, none showed an association with port reform. Fourth, international funding comes with conditions no matter what the sources of finance are. In the case of Indonesia, described in Chapter 6, such conditionality in the 1990's required the privatisation of major ports. The reform, as actually enacted in response to the aid conditions, followed by critical events such as the Asian financial crisis and a shift to democracy, did not represent a systemic shift in actual policy. Fifth, change may occur outside of historical pathways where there is an economy wide ideological shift. The UK, as described in Chapter 6, is a prime example of such critical events during the late 1980's and the 1990's. Two conclusions are drawn from the UK case: that the systemic shift in ownership models in the port sector, while significant in port management terms, is not as dramatic politically as often described. There was historically some institutional distance between the state and the port sector as described in Chapter 6. The reform did not require a paradigmatic shift in ports policy as the change was within a path dependent frame. This is a contentious argument given the UK represents a clear outlier in the data and privatised to a much greater extent than anywhere else. The point is that this political analysis is about the distance travelled in path dependence terms rather than the destination in port management frames. A comparison of actual public control structures before and after suggests that in reality such a privatisation policy was less dramatic politically than that required of other states. The second conclusion is that the real systemic shift in the UK was in the reform of labour institutions rather than governance structures.

Finally, proxy variables for economic development are used to test their impact on policy development for public services. One of the findings in this study is that they are less significant because of the long-term development and investment return cycles associated with public infrastructure. This is not surprising given that the ports selected are amongst the most developed and integrated into the global economy, despite the relative development of the country in which the port is located. Therefore, the quantitative and qualitative evidence for ports support the path dependence thesis, and the political support process model.

### **7.2.1. Process Model**

The policy model used, which was designed to isolate the marginal impacts of explanatory variables, provided the means to validate the main propositions. They are that history and context matters, that there is evidence of regional policy convergence,

that economic actors will influence policy outcomes through coalitional politics, and that dock labour actors have shown remarkable endurance in the face of high levels of social dislocation. The evidence is also consistent with port studies, where the maritime literature, in a number of comparative case studies, point to evidence of actor lock-in to policy paths in the face of high transaction costs; that there is evidence of policy stretching as port actors seek to evolve in spite of policy inertia; and that policy development tends to be self-reinforcing until a critical event shifts policy development to a reactive phase. This shift is still historically contingent and location specific. The causal mechanism tested is based on pragmatic coalitional politics with no material role for partisanship politics (Hall and Thelan, 2009; Amable and Palombarini, 2009). This mechanism assumes that earlier phases of the policy process, such as international negotiation and/or domestic agenda setting have produced a proposition intended to transfer greater power over port services to the market. The data supports this modelling assumption as they trend over time in one direction only. Political institutions coordinate with actors within the existing political and economic institutional constraints and/or opportunities to restore the policy framework to equilibrium. This allows for tightly grouped institutions interacting over time to produce, at a point in time, policy equilibrium based on ‘coalitional’ politics that are history and place dependent. There are a number of innovative assumptions, and interesting findings from the theoretical analysis, that require an equally robust basis to properly evidence the conclusions drawn. The research design and empirical robustness are discussed next.

### **7.3. Research Strategy**

The methodological foundation for the thesis is rationalist, which is intended to explore the limits of available data and Thus, go further than previous work in explaining change. Much of existing work is confined to comparative case studies, which in part reflects the problems with data design and collection (Henisz and Mansfield, 2006). The innovative policy outcome variable is a significant research contribution, which is supplemented with an original collection of port, economic and domestic political data. The dataset resolves a number of quantitative challenges described in Chapter 3. The policy metric is based on a states and markets continuum; cross-national data that goes beyond standard developed democracy country selections; an approach to including state interests that builds on the common ground between ‘soft’ constructivism and neo-realism in a process model framed by historical institutionalism; a contextualisation of policy change within the concept of levels within the economy that may have different

causal mechanisms and explanatory variables; and an approach to the arguments that there is a linkage between institutional and coalitional politics.

The dependent variable required measures actual policy outcomes in terms of states and markets along a continuum of responsibility, in this case market coordination (Brooks, 2004; Brooks and Cullinane, 2006b). It is described in detail in Chapter 4, where it is based on the theory of perfect markets, with a high score representing a market-coordinated policy and a low score representing a state coordinated policy. To do this the policy agenda is divided into five parts to reflect the market dimensions of property rights, economic regulation, and competition (Vickers and Yarrow, 1991). The five measured dimensions can be adapted to a wider range of public infrastructure scenarios as they cover competition, equity ownership, price regulation, investment obligations, and project approval authority. They measure in all public infrastructures the ownership of the assets, the power to set service price levels, who invests in maintenance and development, and who has the final say in new project development. Applying the metric allows the researcher to assess the degree to which the private sector or the state coordinates the market for public services. It is fundamentally about political power. As the measure is taken after implementation, it effectively takes into account the private sector response to policy initiatives. This filters out policy instruments that have no impact on observable reality. It is consistent with the argument that policy making is about coordinating various interests into a policy outcome that restores the contested policy space to equilibrium.

The metric builds on earlier work in the maritime policy literature on functional typologies for policy makers and is described in detail in Chapter 4 (Baltazar and Brooks, 2001; Baird, 1995; WBPRTK, 2003; ESPO, 2010). The metric dimensions are sub-divided to account for the specifics of the container port market. For equity, the assessment is made on the ownership of the container terminal operator<sup>60</sup> and the port authority. Based on earlier work in maritime economics on port revenue profiles the score is averaged based on a weighting of eighty per cent for the cargo operation and twenty per cent for the port authority (Suykens, 1996; Trujillo and Nombela, 2000:155). This also reflects the expectation that port authorities (regulator and landlord functions), based on a reducing competitive role in favour of terminals, and are less likely to be

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<sup>60</sup> Ownership of the container terminal assets may not pass under a lease, operating or concession agreements. This metric captures the extent to which private terminal operators control the market for cargo handling services, as discussed in Chapter 4.

sold on to the private sector (Slack, 1993; Van de Voorde, 2005). The price control dimension is measured and weighted in the same manner.

The investment and project approval measures are more complex as they need to accommodate variance in policy approaches across different asset classes. They are divided into terminal superstructure and infrastructure, plus marine infrastructure. This is consistent with port governance literature (Lee and Flynn, 2011:797). The intent is to capture the variety in policy making with long-term marine infrastructure such as breakwaters less likely to be funded by the private sector. Equally, as the asset class increases in cost and length of life, the public goods argument is less likely to be dismissed. In such scenarios, policy makers are more likely to be involved in controlling all significant development through some form of political veto (Pallis, 2007:490).

The motives for such a veto are not of immediate concern however, they can include coordinating welfare enhancing development or the retention of power for the benefit of clients. Averaging the three sub-categories for investment into a single metric along with averaging the political veto score into a single metric gives a profile of market versus state power in the market. Competition is measured simply on the basis that two or more container terminals, separately owned, points to a potentially competitive market within a container port. The measure takes no account of the quality of the competition or inter-port dynamics; however, it is a useful indicator of policy action on market versus state power within the container port. Combining all five sub-variables provides a continuous variable scaling from zero to five. This is the metric variant applied to the data models in Chapter 5. A version that scores the combined metric against a normative value measured as a 'Landlord' port is used in Chapter 6 to chart the lack of real global convergence. It can be further collapsed to a categorical variable as required. The sub-elements can also be used in isolation to compare policy frames at a more detailed level. Of interest is that such a comparison of equity ownership shows a level of container terminal privatisation consistent with maritime economics performance based literature. This is a useful validation of the measures.

The key finding, consistent with the broader theoretical proposition in this thesis, is that policy frames do differ cross-nationally. Chapter 4 provides a range of descriptive statistical analysis that highlights the extent of the variance. There is also a regional clustering evident across the policy metric, which forms the basis of the regional

convergence hypothesis described in Chapter 6, and below. Across time, the data is interesting. First, there is a single trend in the composite score towards greater private sector control. Second, the number of substantive policy changes over the three-decade analysis is quite small reflecting the underlying long-term nature of public infrastructure. Third, the equity sub-variable is consistent with political and maritime economics literature showing an accumulation of private sector involvement in all ports across time. This validates the simple privatisation thesis but it does not validate the argument that power has shifted definitively from the state to the market. The policy measures in these data show that policy does differ between countries in terms of market coordination, as between the private sector and the state.

The countries selected are based on the leading container ports in 2007 (Containerisation International database). The intention is to capture those ports that have significant market mass, that are mature in their policy and infrastructural development, and are highly integrated into global trading networks. In all the ports at least one of the largest international terminal operators (ITOs) are present<sup>61</sup>. Thus, the selection includes non-democratic and lessor developed states, outside the normal frame for such a policy study, where one can assume some accommodation with capitalism was arrived at to facilitate international shipping, cargo handling, capital movement, and trade. The container port sector is Therefore, a unique opportunity to explore economic policy making across such a politically varied country dataset. The availability of political variables for the period and the countries selected is also an opportunity. Only three countries are dropped because of the shortage of reliable political variables: Hong Kong, Vietnam and Taiwan. Given Asia is well represented across the remaining twenty-six countries the data set has sufficient variance across all variables. To capture state economic interests a set of variables from the Fraser Institute data on economic openness are abstracted. This approach reflects on literature that challenges the concept of openness as “historically rare, problematic, and a phenomenon that itself needs to be explained” (Lake, 2009:221). In this work, openness refers specifically to private sector market access. The metrics used reflect economic variables of direct interest to the port sector and the propositions tested in this thesis. They include the role of the military in the economy, capital controls, investment rules for foreign ownership, and property rights. These are applied as variables in the data models in Chapter 5 with some support for the argument that a significant role for the military will limit the level of power

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<sup>61</sup> This is based on data collected in 2013 from ITO and port websites.

transfer to the private sector. There is also support for the argument that constraints on the movement of capital will limit the transfer of power to the private sector. The conclusions also highlight the policy dynamic, which is not a one-dimensional unidirectional policy instrument from political institutions, but it also reflects the appetite, the demands, and the institutional capacity of the private sector. This is consistent with the varieties of capitalism argument that all policy needs to be assessed in the broader context of complementary interacting institutions.

The political institutional context provides the substantive explanation for change in the data models. The Polity IV project supplies an institutional measure of democracy based on an assessment of the constitutional form and content of the political system. Within that metric is a measure of the number of constraints on the executive in policy making. Thus, the propositions that higher levels of democracy will yield higher levels of private sector participation in public infrastructure, and the higher the number of decision constraints will yield lower levels of private sector participation hold true. The results are substantive and statistically significant. To be precise however the literature on political institutions tends to test for change events. As such, the evidence may confirm that change events are a function of political institutional structure. It is therefore, in the marginal effects of agency that explanations for varied outcomes on the policy continuum are to be found. Economic factors, based on data drawn from the World Bank development indicators, are included in the model as controls. The more interesting result is that higher economic development, measured as the log transformation of Gross National Income (GNI) per capita, results in higher private sector participation. This is consistent with arguments of development and democracy, which these data do not reject. What the model also demonstrates is the high level of potential interaction between institutions.

Equally, the risk of endogeneity is high given the problems with unpicking the causal order in this complex interdependent policy process. Thus, the research design includes an opportunity to undertake a Large N comparative study, and a qualitative strategy to unpick the causal process through analytical narrative and comparative country cases. The variance in policy outcomes, the dependent variable, also requires a qualitative approach to explain outliers. Thus, the research design is a mix of quantitative analysis to identify the institutional package that is relevant to port policy formation; and a qualitative approach that introduces an original document analysis supported by

informal expert interviews. The latter comparative case studies provide evidence of enduring labour resistance, policy convergence within regions contingent on complementary economic institutions, and explanations for outlier countries with ports policy outside expected values. The case analysis is the more efficient research approach to unpicking the complex web of institutional structures and the interplay of domestic interest representation. The country cases are selected on a 'least like' the expected policy profile and are the United Kingdom, Indonesia, and South Africa. Other countries are discussed in the context of the regional convergence and labour resistance, such as Germany, Brazil, and the United States. The case analysis also validates the findings in the data models.

However, the value of the data modelling is in the assessment of the marginal impact of domestic interests in policy outcomes. The interest group of significance in the port sector is dock labour (Turnbull, 2000; Notteboom, 2010; Turnbull and Weston, 1993; Turnbull, 2012:519). This is contrasted with an innovative measure of domestic capital as an explanatory variable, for which there is cross-national evidence of domestic shipping supporting and opposing wider international capital influence in the port sector. This is further evidence of unclear causal direction in framing a testable model. For interest groups, institutional capacity is the requirement for any proxy value, which is consistent with the other variables in the models. In the case of labour freedoms the worker rights index from the Cingranelli-Richards (CIRI) Human Rights Dataset is used as a proxy for labour institutional capacity. It is not a measure of activism or union density. For the latter, density is assumed to be at or near one hundred per cent among dock labour. For the former the case analysis is used to explore further the levels of actual resistance. Thus, institutional capacity of labour is a proxy for the transformative capacity of agency (Notteboom et al, 2013).

In the case of domestic capital, the principle port users are shipping lines. Where the domestic shipping industry has sufficient mass it is assumed that collective action problems are overcome and the industry will lobby for change or stability that suits their rational self-interest. An original proxy measure of domestic shipping power is constructed from the scale of the domestic ship registry for container vessels, drawn from an UNCTAD dataset, expressed as a proportion of national container throughput per annum. This is a relative rather than absolute measure and is a proxy for the institutional capacity of domestic shipping, as a political actor, in the market place.

Underlying the propositions tested is the argument that it is appropriate to transfer power to the private sector for provision and operation of traditional public goods such as ports. The data and casework provide some insights into the realities of how this policy argument has developed in the port sector.

#### **7.4. Container Ports**

The research question posed at the outset focussed on public infrastructure as the case to be examined. The point of interest for such assets is that they are considered public goods. Politically this is assumed to mean that the state has an obligation to supply, finance, and operate such infrastructure. In the transport sector, this includes roads, railways, airports, and seaports. In economic terms infrastructure are considered public goods based on non-competiveness and universal access; coupled with the idea that the private sector cannot or is unwilling to supply the infrastructure. The evidence here is that some port assets have moved outside the public goods definition but marine infrastructure still remains largely an issue for the public sector. This does not exclude private financing of marine infrastructure but the responsibility to coordinate remains with the state.

For policy makers there are three points that are pertinent in the data. First, the arguments that define ports as public goods were challenged and any reliance on public goods notions were “largely abused” by politicians (Baird, 2004). The public goods issues for ports are discussed in Chapter 2, and reflected in the policy measures developed in Chapter 4. Traditionally the supply of port infrastructure and related services was largely regarded as the responsibility of the state, particularly since World War II. This public goods assumption is problematic in an interdependent market. Container terminals and their attendant superstructures no longer satisfy the economic criteria for public goods. They are competitive by nature within ports and between ports. They are controlled by an entity that can limit access to users based on competition and price. There is also clear evidence in the data that the market is willing to fund and develop such assets, subject to an amenable economic institutional framework. However the basic port access infrastructure, channels and breakwaters on the waterside with roads and rail networks on the landside, are quite often the responsibility of the state in these data. Logically the same arguments apply to port access on the landside or waterside. This deconstruction of the public goods argument for ports supported the political and economic ideas of public sector privatisation. This

covers planning, ownership and funding topics with the data in Chapter 4 showing evidence of a shift to the private sector coupled with a distinct retention of political veto control by the state. Any shift in power from the public to the private sector needs to be matched with a regulatory framework that will manage any political and economic risks, such as those associated with a private monopoly. This may be the political justification for retention of veto power on port development projects, and institutions that control how the market can function to guarantee a competitive market in port services. However, there are other political choices to be made in port sector policy reform.

With the transfer of control to the private sector, it is often the case that labour will pay a significant price, through a “vicious” cycle of cost cuts (Turnbull and Weston, 1993). Significant social dislocation is common (Turnbull, 2000). What is clear from the data gathered is that differences in party positions on public sector reforms as documented in party manifestos do not generally follow into party differences in governing. What is more likely is that policy proposals require elite political rather than electoral support. This is the context for political calculations in a policy-making context and labour interests are often compensated accordingly in these data (Notteboom, 2010:73; Turnbull, 2012:519).

In the wider debates on global public policy convergence, the arguments for convergence focus on the growth of power among international actors. This convergence thesis is the “favourite straw man of comparative and international political economists”; where the focus needs to be on the type of globalisation and the institutional form of the state (Mosley, 2005:355). In the case of seaports, the main actors are international terminal operators and international organisations. The terminal operator market shows significant signs of market saturation by a small number of multinationals (Pallis, 2007; UNCTAD, 2009). Market power, as a driver of demand, rests with these operators to dictate ports of call and the service standards expected of modern ports. The argument that countries will compete for their size appropriate share of the market and thus, reduce the economic costs of imports and exports is compelling; and there is some support here in that all ports have responded in some manner to this power shift. In the selected data, there is also strong evidence of ports competing for transshipment volumes. Thus, ideational diffusion in response to competitive pressure may explain policy change, but it does not explain the extent to which policy moves on the state/market continuum necessarily. A similar line of argument follows when

considering the impact of international institutions as epistemic communities or as purveyors of conditional aid programmes. The net point is that international factors, institutional or market driven, are justifiably regarded as the source of policy demand. The clearest example is discussed in Chapter 6 in the case of Indonesia. In this instance, aid conditionality in the 1990's required the privatisation of Jakarta International Container Terminal. The actual programme did not involve a sale and did not allow for competition. When democratisation took hold in the early 2000's the policy intent was to privatise public infrastructure, which had no actual impact on the port sector despite being listed for privatisation. In more recent years, a new Shipping Law (17:2008) set out a path to privatisation but at the close of the study, this has not materialised. In fact, the follow on port regulations (61:2009) effectively constrains the role of the private sector in international ports. Thus, the international, including significant market power, may explain policy events but not actual policy content.

This thesis draws on management, economic and political perspectives of the international container port sector. Modernisation of work practices and technological innovation are key management themes in the globalisation debate. The efficient and the effective operation of ports remain enduring themes in the maritime economics literature. In the political sphere, the best practice ideas of the capitalist system have a significant influence on policy makers. However, the political agenda is also driven by a number of other policy dilemmas. Public funding of port assets may be desirable in an economic nationalist context, for example the Asian country cluster, however public finances may be in short supply. This will require a turn to the private sector by asset sales or by securitisation of port assets to involve the private sector in funding and operating ports. The policy challenge is to avoid private monopolies and manage vested interests. The primary political imperative is to ensure the facilitation of trade and the lowering of transport cost structures in response to the globalisation of production. By conceptualising public infrastructure politics and policy making as functioning at the lower operational level in the economy, there is evidence that the process functions as one of political coordination between structure and agency. Before concluding, the key findings of labour resistance and regional convergence are explored.

## **7.5. Neighbourhood consensus**

The data described in Chapter 4 clearly shows a range of policy values cross nationally. It also shows a clear time trend with a greater role for the private sector. What is clear

from the data modelling in Chapter 5 and the case evidence in Chapter 6 is that policy values show a strong association with the policy context of each nation-state, consistent with path dependency theories. As discussed earlier in this chapter, path dependency is a generic term for theories that assume a link between past policy decisions and the choices available in framing a new policy. Historical institutionalism is a wide theoretical frame that provides the structure to frame the coalitional politics casual mechanism. It assumes that institutions, direct and complementary, are the structure within which interest groups are accommodated to arrive at policy equilibrium at a particular point in time. The evidence in the data points to similar policy outcomes for those countries with a shared cultural and economic history. This normally applies to neighbours in a region but can also be a reflection of colonial links; and Therefore, South Africa and Brazil are found to sit within the Anglo-Saxon and European groups respectively. The evidence here shows a strong tendency to cluster around regional blocs consistent with earlier works on port governance frames where policy outcomes are predicted to follow particular regional norms of behaviour (Bennathon and Walters, 1979; Lee and Flynn, 2011). These earlier works use pricing and investment policies as predictors of governance frames. They are a useful typological tool and the data supports their extension to a wider group of neighbourhood clusters. They are Anglo-Saxon, European, Asian, and Middle East/North Africa. Within these clusters, there is a strong degree of similar policies and where there are exceptions. For example, in South Africa, there is evidence of a political narrative, apartheid, which explains the variance. This theoretical logic is consistent with theories on varieties of capitalism in neo-institutionalism (Amable, 2003). What is interesting is that there are similar outcome values across clusters however, and most important for this neighbourhood proposition, they differ when parsed to the constituent market dimensions. For example, Asia and Europe have similar attitudes to investment as a social overhead but differ as to property regimes and the time period for a return on the investment. This is argued in detail in Chapter 6. While the groupings are valid for the countries selected and for the time period observed, it does not necessarily follow that it will apply to other countries, which by definition will have smaller ports with reduced connectivity. It cannot be argued that as the port grows and becomes more integrated into world trade networks that governance policy will develop according to larger predecessors. It may be the ports will continue to exhibit path dependent trends as in the selected group. It may also be that a variable such as financial crisis, as in the former Eastern Bloc, drives such a paradigmatic shift in broad economic policy. Path dependency may not explain policy

content in such scenarios as reform is in the context of a dismantling and reconstruction of institutions in the wider economy.

The United Kingdom case in Chapter 6 does question this argument, as the apparent radical shift in policy was not entirely inconsistent with previous policy choices. Thus, past policy does not necessarily constrain future options but may provide the resource opportunities to guide new policy development in a systemic change process. Similarly, as ports in Africa develop, aid conditionality may break links with the colonial past and drive a major shift in port governance policy. What is always worth recalling is that port governance policy is assumed to function at the operational level of the economy and more likely to reflect pragmatic considerations. Thus, this finding of continuing path dependency, even in the context of systemic change, is not inconsistent with radical policy shifts in capital markets that function at a higher structural level in the political economy. The theoretical assumption described in Chapter 2 is that policy dynamics, and causal mechanisms, will differ across levels in the economy.

The data shows a tendency to converge regionally but with significant divergence when examined globally. It would be wrong to suggest that policy will always diverge. It is difficult to differentiate between the possibilities that we are observing distinct models of capitalism or an evolutionary process in the international political economy (Crouch, 2005:683). Public sector policies through the ages have shifted from ideas of strong interventionist state control to private control as a more efficient market management tool. Over the very long term the clusters may converge as broader economic policies, or system wide ideological projects, adjust to deeper international integration. Expanding the data collected from the countries represented in the top fifty container ports to the top one hundred would be a useful test of the cluster argument, and introduce greater variety in historical and social contexts. This thesis does show that measuring policies across market dimensions of competition, property, and regulation to create an index or categorisation of policy outcomes represents a contribution to scholarly debate in all cases of public infrastructure. This moves the debate beyond container ports to other categories of public transport. This includes other port types, rail and air transportation where the logic of infrastructure and superstructure can be applied and a difference can be made between network infrastructure and service provision. The logic can also apply to power generation and supply. It is also a suitable approach in large N comparative studies as well in small n comparative casework.

## **7.6. Actor impacts: Labour and domestic capital**

The literature in Chapter 2 and the primary evidence in Chapter 6 support the contention that dock labour tends to be active and radical. The evidence also shows that labour reform is often a complementary part of the broader port policy process. The latter reflects the social dislocation that has accompanied the advent of the container and the former reflects market demands for cost effectiveness in cargo handling. The role of mobilised interests in public policy formation in this public service liberalisation debate is rarely explored whereas institutional structure is more common as an explanation. While structure is not ignored, the argument that dock labour interests resist reform and are a factor to contend with in the political process is well supported. However, the resistance of labour interests may be futile in the long run.

In the comparative case study, considerable evidence was presented to highlight the relative militancy and continuing political activism of dock labour. This radical trend continues. In 2013 the International Transport Workers Federation has targeted DP World at various sites, including India and Australia, as part of a campaign of resistance to change and privatisation (Port Strategy, 07/10/2013). This further supports the conclusion drawn that dock labour will always resist privatisation. However, it also illustrates the failure of trade unions to effectively globalise resistance despite the rhetoric. In the case of Liverpool port in the 1990s, discussed in Chapter 6, there was significant international moral and material support (Davies, 2007). Ultimately, in all the cases examined, an accommodation is reached with labour and reforms are implemented; and international support is limited to financial and moral support. What differs cross nationally and what contributes to the divergence debate is that labour will often succeed in moderating the policy impact and/or influencing the timing of its implementation.

The evidence presented does not support the argument that union density is a predictor of resistance. Hence, it is not selected as a variable of dockworker resistance as discussed in section 5.2.1. In France union density is low<sup>62</sup> yet the evidence suggests that radical opposition is high (Containerisation International, 01/07/2008). This supports the contention throughout this dissertation that the national level proxies typically used in privatisation studied are inadequate. This is because metrics that reflect the public sector and specifically port workers are not easily available. Modelling the

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<sup>62</sup> This is based on OECD Labour force Statistics downloaded from [www.oecd.org/std/labour](http://www.oecd.org/std/labour)

labour resistance hypothesis was Therefore, a particular challenge as measuring the capacity and reality of resistance is difficult to capture in a quantitative exercise. The thesis Therefore, needed to go beyond the macro data study to look at some country cases in detail, and introduce primary evidence from documents and interviews. The evidence shows enduring labour resistance, albeit if futile in the long run.

The casework highlighted the varied potential of labour to lobby and agitate against privatisation. In the Philippines unions joined with domestic capital in a consortium to prevent a privatisation proposal based on an open market tender mechanism: “the union is backing a negotiated contract mode of privatisation as it is part of a consortium, made up of port developers and domestic ship-owners, which is currently negotiating with the state-owned Philippine Ports Authority for the management and operation of the North Harbour” in Manila (Business Times Singapore, 07/09/1999). The joint interests of domestic capital and labour coordinated their efforts to prevent international capital participating in the port of Manila, Philippines. Where trade unions are not strong, or are not free to function, there remains evidence of dock labour representing their interests to policy makers. For example in Indonesia the documentary and interview evidence supports the argument that labour made use of common cause with bureaucratic structures to protect their interests, and no job losses followed as part of the port regulations (61, 2009). A further observation in the labour narrative is that labour defeat defined as the failure to stop privatisation, does not mean that labour left the process without compensation. In Germany, unions negotiated a solution through institutional structures that facilitate consensus policy development and worker compensation. In Hamburg port, where the work force fell from 11,000 in 1980 to 5,000 by 2007, the early retirement packages provided for eighty five per cent of salary to be paid, with a portion of this package funded by the state (Notteboom, 2010:73). The case of the United States also illustrates the capacity of dockworkers to extract rent from employers. The case shows that policy makers in the United States are not willing to confront the unions on this matter and high wages are the norm (Port Strategy, 03/06/2011)

Political cleavage is often used as an explanatory variable in privatisation studies, characterised as labour supporting the left and capital the right. This reasonably proposes that there are significantly different approaches to privatisation of public services between the left and the right in political discourse. This study shows that in the case of long term asset based public services such arguments do not apply. This

makes sense if one differentiates between the short-term nature of electoral politics and the constant need of government in power to maintain the support of coalition parties and of mobilised interests. In the case of the United Kingdom, the return of the Labour Party to power in 1997 did not result in a reversal of port privatisation, or any other similar policies associated with the Thatcher era. In fact, as illustrated in the case study Chapter 6, subsequent policy reviews and initiatives have reinforced the process and have focussed on regulatory regimes that will support greater private sector participation in the port sector.

The evidence supports the contention that the policy process is essentially pragmatic, and not ideological, with negotiation between interests and policy makers designed to minimise relative costs. The policy process is constrained by the policies of the past with limited evidence in the data of shifts to a new policy paradigm.

### **7.7. Final Thoughts**

The thesis makes a number of contributions to the literature in terms of an innovative study of maritime trade, the collection and analysis of innovative data and metrics for policy outcomes, the extension of a regional typology for port governance policy frames, the application of path dependency theories to national policy evolution, and a study of labour interest group resistance to policy change. The proposition that diffusion of economic ideas does impact the national policy agenda is consistent with these data and in line with existing literature. It does not follow that such policy initiatives will be adopted without a political contest. When considering policy content one must look to the domestic political structure and agency to better understand the final observable policy outcomes enabled by political initiatives. Therefore, domestic politics does matter to the interdependence debate and is not, at this point in history, redundant in the face of global capitalism. These data show that labour is not impotent in the face of global capitalism although resistance tends to result in delay or modification of policy rather than reversal. Labour also has a capacity to extract compensation for change.

One product of the research is that the dependent variable developed, policy outcomes, is also of value as an explanatory variable in port performance studies. Where the hypothesis argues that greater private sector participation will improve port performance then this variable can be used as a continuous value, or as a value per market dimension, or as a categorical value that defines the unit of comparison. The openness variable used in the case study is also of value as a more precise institutional measure of economic

openness for public infrastructure when compared to the standard trade to GDP metric. Again, the contribution is to challenge typical metrics in privatisation studies to add value to the conclusions drawn. The theoretical frame used implicitly challenged typical explanatory variables in privatisation literature. Institutional capacity is the appropriate variable type to use to construct a model of change that incorporates interaction between institutions and potential coalition members. Therefore, the use of the CIRI worker rights index and the innovative domestic capital index are valuable and instructive. Both are statistically significant in the base regression models. The extension of the countries dataset to ensure significant variability on the political structure, economic institutions, and actor capacity variables provided a significant opportunity to test theoretical arguments consistent with neo-institutionalism.

These are significant methodological contributions to the body of knowledge and they provide an excellent opportunity to test other public infrastructure scenarios and country combinations. The model is based on identifying the level in the economy at which the policy is developed; measuring the scale of transfer from state coordination to market coordination on the policy continuum; identifying the institutions that combined represent the complementary institutional package; and finally identifying the key interest groups important to the political support hypothesis. This is process model that enables a nuanced look at public policy in contrast with macro-economic models for democratic settings that privilege the convergence hypothesis. Crucially the model and policy measure incorporate the response of the market, in addition to institutional and actor interactions. For example, a legislative initiative to privatise a public utility may be rejected, or overpriced, by the private sector if the broader economic institutional framework is unfriendly to investors, or uncertain in its application.

The same metric for actual policy outcomes can be applied as an input to performance appraisals as well as cross-national comparative research. A key limitation in such work is the problem of comparison between disparate units of analysis. By categorising accurately the governance profile of ports based on the policy outcome variable, their economic scale, and by cargo mode, it is possible to compare performance values cross nationally and between ports. This measurement and process model can be adapted to other modes, and nodes, of transport. The approach and metrics will bring significant improvements in our capacity to understand the politics of change, mostly defined as devolution of functions to the private sector, and in turn policy effectiveness. The

impact will be in better design of governance frameworks to manage effectively the mix of private and public interests in project and service delivery.

The evidence presented also provides insights into alternative explanations for policy variance. Financial crisis may have an impact on the political agenda, and the resultant pace of change in order to generate capital for the state. The evidence here is that the length of time for policy change through to implementation is longer than average periods of financial crisis. Therefore, while financial crisis may be a predictor of a change event in some levels of the economy, there is little support for financial crisis as a predictor of policy content in the public infrastructure context. This time factor is an important determinant of policy outcomes and suggests that systemic crisis is unlikely to impact on policy outcomes. It also supports the argument that elections and ideological conflicts are unlikely to impact on policy outcomes. Security concerns are also examined in the data models as military presence in the economy and in the casework where the narrative reflected such concerns. There is some support for the argument of reduced devolution to the private sector where the presence of the military in the economy is significant. This may be due to other interacting institutions in the policy package, such as levels of democracy. The narrative presents clear evidence of security concerns where the focus is on who from the market can participate rather than policy content. The United States congress voiced opposition centred on perceived security risks from gulf-states as owners rather than privatisation or even international ownership per se. The debate ignored the inconvenient fact that cargo terminals are operated as concessions in the United States rather than as private ownership transfers. External aid conditionality may have an impact on the agenda and direct that ports be privatised. The documentary evidence shows that domestic politics still retains control over the policy response. For example, Indonesia modified conditions and limited the impact of privatisation Thus, protecting bureaucratic and domestic labour interests; with minimum costs to policy makers, and perhaps to extract economic rent to their benefit.

This research contributes in terms of theory and typology development, resolving methodological issues of country selection and measurement, while demonstrating that domestic interests, location, and history do matter in explaining policy variance cross nationally. The model specification is careful in its construction by controlling the causal process to non-constitutional levels in the economy and the final action stage of the policy process. All through the text, the process story is shown to be consistent with alternative explanations common in the literature. It also adds a level of explanatory

power and nuance to the literature not available to date. It describes policy making for public infrastructure as slow moving thus, largely independent of relatively rapid movements in the economy or in politics. It does not exclude the influence of international dynamics but accommodates them by limiting their direct influence to the policy agenda. There is a possible indirect influence on the agenda through market responses to policy packages. Where there is a poor take up by the market of new opportunities to participate then this suggests policy failure. This is arguably the case in Indonesia as described in Chapter 6, which explains continuing political contestation. Thus, complementary reforms, such as changes to the ‘Negative Investment List’ regime described in Chapter 6, may be required to induce a response from the market.

As with all research, there are opportunities to further develop these findings by expanding the country selection and by further refinement of the policy outcome measure. For example, the equity measure takes a simple view of relative ownership of the terminal operating entity. Concession terms may limit or expand the market power of the terminal operator and future work might consider how this can be incorporated in the policy outcome metric. There are potential advances to be made in developing further statistical models that accommodate non-linear policy progression and complex institutional interactions. The theoretical and methodological approach can be applied to other public infrastructure settings, in particular the transport sector. The policy metric has value in port performance studies providing researchers with the means to compare ports on a common index, weighted by cargo mode product mix.

In policymaking, the findings are simple. It is important that the policy prescription is technically sufficient to generate a specified response from the market, for example investment. This prescription must also take account of complementary institutions in the political economy. However, to see the policy change implemented successfully requires political coordination within a specified institutional context. It is this link between institutionalism and the politics of coordination that makes a contribution to public infrastructure policy initiatives. It is also this theoretical contribution that links to future research opportunities, complemented by the methodological insights gained in this research.

This thesis has made progress in unpicking the variables that explain policy content rather than change events. It has dealt with methodological challenges to units of analysis, variable selection, and data measurement. It has engaged with theoretical

challenges to causal mechanisms of ideology and political support, to blending coalitional politics with theories of neo-institutionalism, the differentiation of institutional levels in the economy, the salience of time, and the characteristics of different economic sectors. The findings make a contribution to developing multi-level econometric models of change along the policy continuum that may support a generalizable hypothesis. Future work should take heed of the nested methodological approach where the quantitative and qualitative continues to inform each other in a controlled loop of research (Lieberman, 2005).

Therefore,, I submit that the findings are of value to port management, maritime economics and the political economy literature; the eclectic starting point for the research.

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