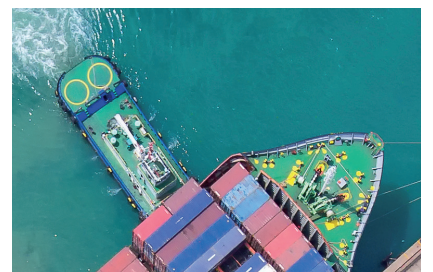




Local Governments and Ports



Case-Specific Policy Analysis

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Case-Specific Policy Analysis Reports

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Executive summary

What we did

This report provides an overview of the involvement of local governments in port governance, assesses the impacts of that involvement and offers a number of policy recommendations. The study is based on an extensive literature review, information collected during several studies of ports undertaken by the ITF and the OECD between 2010 and 2016 as well as discussions with policy makers from the various countries.

What we found

The majority of the world's fifty largest ports are wholly owned by their national governments. Just over one third are wholly or partly owned by local governments. Full ownership of ports by local governments is fairly rare, although it does occur in northern Europe and the United States. In most countries two hybrid models can be found: In the first, ports are owned jointly by local and national governments; in the second, local governments own some categories of ports – usually the smaller ones – while national governments own the other, usually larger ports. Regional ownership of ports is fairly common in countries with federal structures where states have responsibilities for port development, for instance in the US, Australia or Germany.

Many ports have some form of formalised representation of local institutions, with local government representatives looking after local interests in the ports' main decision-making bodies. Important issues in which local governments are typically involved include the appointment of the port president and board members, the budget and long-term strategy. In many ports other stakeholders, such as port users, are also included in the decision-making bodies. This represents a wider trend among port authorities to engage in stakeholder relations management. Ports are often direct revenue sources of local governments. The competitiveness of a port is therefore in the direct interest of the local government administration. The local influence over a port is generally larger where the local government is an investor in infrastructure linked to the port, such as hinterland transport infrastructure.

National port policies can run counter to the policies pursued by local government. This is particularly likely if national port policy establishes a hierarchy that elevates some ports to national importance while relegating others as to mere regional or local roles. This is of particular relevance if ports deemed to be of national importance receive priority funding.

Some countries have decentralised their port authority functions from the national to the local level. The most notable example is the People's Republic of China, but port governance has also been decentralised in Argentina, Canada, France and Spain. The reverse situation, centralisation, is rare. Port decentralisation has usually taken place in several stages. It therefore often resulted in a diversity of port governance models within the same country. Decentralisation is frequently part of a larger set of port reforms including the liberalisation, corporatisation and privatisation of port operations, including moves towards a landlord port governance model: in which public port authorities provide leases or concessions to private parties to operate the port.

The involvement of local governments is frequently associated with net benefits for the port. Positive impacts can relate to additional port-related employment or reduction of local emissions as a result of the provision of on-shore power facilities for ships. Ports with strong local government involvement tend to have twice as much port related employment and on average twice as many shore power installations.

What we recommend

Develop tailor-made governance arrangements for ports

There is no one-size-fits-all-recipe for port governance. Countries have different institutional approaches and port governance would need to fit within these specific contexts. Policy recommendations for port governance need to take these specificities into account.

Allow decentralised port governance to create additional benefits for local communities

In countries with a high degree of national government control over ports, decentralisation of responsibilities for ports can help to increase employment and generally improve the local economy. Increasing the involvement of local governments could be achieved through formalised institutional representation, increased shares of revenues from port activities for the local community or strengthened roles for local governments in port development.

Coordinate public port investment, nationally and where possible at a supra-national level

National co-ordination for public investments in ports might be appropriate in countries where ports are largely controlled by local governments. As ports compete internationally, this co-ordination might also be useful at a supra-national level. The aim would be to establish priorities for investment, avoid overcapacity and sustain acceptable levels of return on investment.

Ensure that ports not only focus on profits, but also take local impacts into account

Ports that are operated as businesses increase the focus on profits and reduce the focus on local public interests. In countries with corporatised ports, institutionalised mechanisms that are suited to mitigate the concerns of the local population about local impacts – economic, environmental and social – may be needed. These could take the form of extensive stakeholder consultations and more intensive communication with local citizens and stakeholders.

Defining local port governance

There is a large variety in the way ports all over the world are governed. One particular element of port governance is the involvement of local government in relation to the involvement of national government. This paper aims to give an overview of the involvement of local governments in port governance, assess rankings of different ports based on their involvement of local governments and, finally determine the impact of local port governance.¹ As such, this paper fills a gap in the existing literature on port governance. Port governance has been extensively studied – and the involvement of local governments to a certain extent, but there is only a limited number of studies that have a comparative approach. In most cases such comparative studies were developed outside the academic world; e.g. the European Seaports Organisation (ESPO) prepared a factual report on governance in European ports (ESPO, 2011). Moreover, the link between port governance and performance has only rarely been studied.

This is surprising considering that the impacts of ports - and of port governance - can be considerable. Both shipping and port operations have rapidly globalised over the last decades, with most of the economic benefits of ports spilling over to other regions, and most negative impacts staying close to the port. This leaves ports with the challenge of creating local value, in order to sustain local support for port activity in the area. In this context, it is highly relevant to assess if more local government involvement in ports is conducive to more local positive impacts of ports.

In this paper ports are defined in a strict sense, that is: as public port authorities. This means we will exclude from our analysis the few cases in the world where port authority functions are in the hands of private actors, e.g. in some UK ports. Port authorities evidently form part of a larger institutional environment, which includes firms, associations, universities/research institutes and other service providers. All these organisations can be more or less locally embedded, and thus determine to some extent the local orientation of a port. However, a strict demarcation allows for a more extensive comparison that can inform port policies of national and local governments. In this paper local governments are generally considered municipalities, unless differently indicated. In some cases, the local level coincides with the regional level, as is the case with the Germany city-states such as Hamburg and Bremen.

To determine the involvement of local governments in port governance, this paper distinguishes between four indicators: ownership of ports by local governments; the influence of local governments on the decision making of port authorities; the port as an investment and revenue source for local governments; and local government influence over the staffing of the port. Another possible dimension, not applied in this paper, but worth developing further includes collective actions taken by port and city, for example in terms of economic promotion, the development of tourism (cruise shipping), the attraction of human resources and knowledge development, etc. If these actions are organised at a more local level between port and city, then the port could be considered to have a strong local orientation.

Ownership of ports by local governments

The principal avenue for local government involvement in ports is via ownership of the port. Ports can be part of a local (regional or national) government administration, but as corporatisation of ports has emerged over the last decades, most port authorities are now corporate entities that are at arm's length, but still to a greater or lesser extent owned by governments.

Exclusive ownership of ports by local governments is fairly rare, and occurs in Northern Europe and the United States. Most countries actually fall into hybrid models; either because local and national government jointly own ports, or because local governments own some categories of ports – usually the smaller ports – whilst larger ports in the same country are owned by the national government (Table 1). Exclusive national ownership of ports is similarly rare as exclusive local ownership, and occurs in countries like Ireland, South Africa and Turkey.

Table 1. **Government ownership patterns of ports**

Sub-national ownership	Hybrid ownership	Exclusive national ownership
Belgium	Brazil	Ireland
Finland	Canada	South Africa
Sweden	China (People's Republic of)	Turkey
Norway	France	
Denmark	Greece	
Germany	South Korea	
United States	Mexico	
	Netherlands	
	India	
	Spain	
	United Kingdom	

Source: ITF/OECD data compilation based on interviews and other data sources.

Although port ownership by government level usually follows a national pattern, there are some remarkable differences between ports in the same country (Table 2), e.g. In China, the municipality of Dalian is the only owner of its port, whereas the municipality of Shanghai owns 50% of the shares of its port. In New Zealand, the local government in Tauranga owns 55%, while Auckland owns 100%. The port of Itajai is the only Brazilian port administered by a municipality. In most cases where local governments are involved in their ports, they have a majority share. However, there are also cases (Koper in Slovenia, Gdansk in Poland, Constantza in Romania) where the local government has a minority share.

Regional ownership of ports is fairly common in federal countries, such as the US, Australia and Germany, where states have responsibilities for port development (Table 3). In some cases, this sub-national level is actually comparable to the local level, e.g. in the cases of city-states such as Hamburg and Bremen. The size of the state seems to play an important role, at least in the US. Where US states are large, individual municipalities tend to create and manage port authorities, e.g. California, Texas and Florida. In smaller states, or those with one primary port, these states often establish a single state commercial seaport agency to manage all operations. In some cases (New York/New Jersey), the port authority is under the responsibility of two states; their coverage is large and comprehensive including also the management of tunnels, bridges, airports and seaports (Fawcett, 2007).

Table 2. **Ownership of ports by local governments**

Port	Country	Owners/shareholders	Local share (%)
Antwerp	Belgium	Municipality of Antwerp	100
Zeebrugge	Belgium	Municipality of Bruges, private shareholders	96.4
Itajai	Brazil	Municipality of Itajai	100
Dalian	China (People's Republic of)	Municipality of Dalian	100
Shanghai	China (People's Republic of)	Municipality of Shanghai	50
Hong Kong	China (People's Republic of)	Hong Kong Special Administrative Region	100
Helsinki	Finland	Municipality of Helsinki	100
Auckland	New Zealand	Auckland Council Investments Limited	100
Tauranga	New Zealand	Bay of Plenty Regional Council	55
Rotterdam	Netherlands	Municipality of Rotterdam, Dutch state	70.83
Amsterdam	Netherlands	Municipality of Amsterdam	100
Gdansk	Poland	State, municipality, employees	2
Constanta	Romania	Ministry of Transport, Property Fund, Municipality of Constanta	20
Koper	Slovenia	Various, including Republic of Slovenia, Municipality of Koper	3.8
Gothenburg	Sweden	Municipality of Gothenburg	100
Portsmouth	United Kingdom	Portsmouth City Council	100
Sullom Voe	United Kingdom	Shetland Islands Council	100
Everglades	United States	County	100
Long Beach	United States	Municipality	100
Los Angeles	United States	Municipality	100
Miami	United States	County	100

Source: ITF/OECD data compilation based on interviews and other data sources.

Despite the predominance of mixed governance models when looking at all ports in a country, one could argue that the largest ports in the world are predominantly characterised by national government ownership (Table 4). The majority of the 50 largest ports in the world is exclusively owned by their national governments, just over a third by local governments. The picture is different if one were to look only at the 10 largest (container) ports, which could (partly due to the dominance of Chinese ports in this ranking) all be considered local government ports, with exception of Busan and the possible exception of Singapore, where the national level is in fact the level of the city-state.

Table 3. **Regional responsibilities for ports**

Country	Port	Responsible tier
Argentina	39 of 40 public ports	Provinces
Australia	Melbourne, Sydney, Brisbane	State
Brazil	Paranagua, Rio Grande Sao Sebastiao, Suape, Itaqui, Pecem, Manaus	State
Germany	Hamburg, Bremen	State
Japan	Tokyo, Osaka, Nagoya	Prefecture
Mexico	Baja California Sur, Campeche, Quintana Roo, Rabasco, Tamaulipas	State
United States	Maryland, Georgia, Virginia	State

Source: ITF/OECD data compilation based on interviews and other data sources.

Table 4. **Selected world ports with national government ownership**

Ports	Country
Santos, Rio de Janeiro	Brazil
Le Havre, Marseille, Dunkirk and 4 other GPMs	France
Tanjung Priok (Jakarta)	Indonesia
Dublin	Ireland
Genoa, Gioia Tauro, Trieste and 20 other ports	Italy
Port Klang, Tanjung Pelepas	Malaysia
Durban, Cape Town	South Africa
Barcelona, Valencia, Algeciras and 41 other ports	Spain
Busan, Incheon, Gwangyang and 25 other ports	South Korea
Laem Chabang	Thailand
Izmir	Turkey

Source: ITF/OECD data compilation based on interviews and other data sources.

Most of these ownership patterns of ports by government level originate from history, and appear to be fairly resistant over time.² These patterns have given rise to categorisation efforts; e.g. European ports have been grouped into four large groups, based – among other criteria – on the involvement of local governments: Hanseatic, Mediterranean, new Hanseatic and Anglo-Saxon ports (e.g. Verhoeven, 2009). Although schematic, they also obscure differences between ports within the same governance model. The port governance in other parts of the world is in various instances derived from colonial heritage, e.g. India inherited the Trust ports from the UK, a governance model not found in other countries.

Despite their prolonged resistance, ownership patterns can change over time. This paper will cover port decentralisation reforms, that can change ownership patterns of groups of ports, but there are also changes that apply to individual ports. The central government in the Netherlands bought approximately 30% of the shares of the port of Rotterdam in the 2000s, which had up until then been in exclusive local ownership, to compensate for the investment of the central government in the second Maasvlakte port

extension. There are other ways in which local ownership shares in ports can change. Although the City of Gdansk is a shareholder in the company managing the port and holds slightly over 2% of its shares, it could theoretically hold up to one-third of its shares. The increase could be possible through the contribution of land. Yet, the City has no such intention as it can see no immediate profit: according to the Polish Port Act, the entire profit generated by the Port of Gdansk goes to the port's development. Changes in the extent of local ownership of ports can be controversial: port unions oppose a proposed larger port share for the municipality of Constantza, because they fear too much focus on local interests.

Influence of local government on port decision making

The influence of local governments on port decision making can be assessed in two ways: to which extent are they represented in important port decision-making bodies, and what are the issues on which they have influence? There are many ports that have some form or formalised local institutional representation; they have, within their main decision-making bodies, representatives that are appointed or assigned by local governments to serve their interests. This local representation can take place in the main decision-making bodies, such as the board of directors, in the supervisory body, or in other port institutions, such as consultation bodies. Explicit power very much depends on decision-making rules: e.g. the board might need a majority (> 50%) to make decisions. In that case, the relative share of the municipality in the board is important. Our overview of ports with formalised local institutional representation shows that the majority of these ports actually have local representation in the main decision-making body (Table 5). Local representation can range from the marginal to majority representation, although the latter case is fairly rare. An additional factor is implicit power: local governments might have a significant impact on ports by the regulations and decisions they take independently from the port. These can indirectly and partly determine the conditions for ports to operate.

Effective decision power of port authorities also depends on national policies and responsibilities, as will be discussed later on in this paper. For example, a municipal port might decide to increase the port dues by a certain percentage, but a national port regulator or other more central regulatory body could have the power to overrule this rate increase. In that case, the central government has a large impact on decisions taken at a lower level, even if it is a municipal port.

There is no linear relation between local ownership and local representation. Some locally owned ports, such as Rotterdam, do not have formalised local representation within their main decision-making bodies. At the same time, various countries with predominantly national port governance have port bodies in which local governments are represented. In the case of Busan, the government of Korea owns the port, but it is the municipality of Busan that nominates all members of the Port Assembly, the supervisory body. The national governments of France and Greece own the ports of Marseille and Piraeus respectively, but local governments are represented in their institutions. In some ports, all government tiers are represented in the institutional framework of the port: in the Board of Directors of the port of Vancouver, the local and provincial governments are represented, alongside the federal government. In Barcelona, the Management Board of the port consists of members from local, regional and central government. In many boards the central or regional government is represented (with or without voting rights), often as a sort of watchdog. For example, there is a Flemish port commissioner who sees to it that the decisions of the Flemish ports are in line with government rules and regulations (cf. Port Decree).

However, it is difficult to generalise, because practices in one country already tend to differ from one case to another. In Mexico, the boards of independent port administrations (APIs) must include representatives from the States and municipalities, and some from the private sector. APIs are not full

port authorities since that role is legally attributed to the Secretary of Communications and Transport (SCT). The main 16 ports in Mexico created APIs that are accountable primarily to the federal government, but five ports have APIs which are controlled by State governments, all of which are specialised ports (tourism, fishing) or serve small local markets (Estache et al., 2002).

Table 5. **Ports with formalised local institutional representation**

Port	Country	Body with local representation	Status of body	Share of local representation (number of members)
Antwerp	Belgium	Board of directors	Decision making	At least 10 out of 18
Public ports	Brazil	Port Authority Council	Consultation	1 out of 16 (local) and 1 out of 16 (state)
Vancouver	Canada	Board of directors	Decision making	1 out of 11 (local) and 2 out of 11 (province)
Piraeus	Greece	Board of directors	Supervision	1 out of 10
JNPT	India	Board of trustees	Supervision	1 out of 16 (region)
Nagoya	Japan	Port Assembly	Decision making	15 out of 30 (prefecture) and 15 out of 30 (local)
Busan	Korea	Port Committee	Supervision	All 11 members
Marseille	France	Supervisory Council Development Council	Supervision Consultation	4 out of 17 12 out of 40
Riga	Latvia	Board of directors	Decision making	4 out of 8
Ventspils	Latvia	Board of directors	Decision making	4 out of 8
Liepaja	Latvia	Board of directors	Decision making	3 out of 9
Manzanillo	Mexico	Board	Consultation	1 out of 8
Zeeland	Netherlands	Board of governors	Decision making	3 out of 4 (local) and 1 out of 4 (region)
Gdynia	Poland	Supervisory Board	Supervision	4 out of 9
Algeciras	Spain	Management Board	Decision making	5 out of 18 (region)
Barcelona	Spain	Management Board	Decision making	2 out of 16 (local) and 4 out of 16 (region)

Note: Local representation refers here to representation at the municipal level, unless otherwise stated. Regional representation refers to the relevant regional government levels in the country, such as region, state or province.

Source: ITF/OECD data compilation based on interviews and other data sources.

Main issues in which local governments are involved include the appointment of the port president and board members, the budget of the port and the long-term strategy of the port. In various cases, discussions on these items have to be approved by the mayor, a vice-mayor dedicated to the port and/or

the municipal council. The need for local government approval for these three issues is often linked to local ownership: if the local government owns the port, it usually also has influence on the budget or the long term strategy, even if the port has been corporatised and operating at arm's length from the local government, as in Rotterdam. In most nationally owned ports, it is the national government that has this influence on budget and strategy: the local influence is considered guaranteed by the local representation in ports institutions, such as the board of directors of the supervisory board. In some rare cases, such as Spain, a dual approval system exists, in which the decision-making power on ports is shared between central government (*Puertos del Estado*) and the regional government.

In various ports, other port stakeholders (e.g. port users) are also included in the main port bodies, as part of a wider effort of stakeholder relations management (SRM), which is becoming a key management field for modern port authorities. Including stakeholders in the decision-making entities is an example of direct SRM (Notteboom and Winkelmanns, 2003). In some ports, it is a requirement to provide representation of port users in decision-making entities. This policy is implemented in the port of Santos, Brazil, where one member of the administrative council represents private companies. The private sector is also represented in the Board of Trustees of the port of Jawaharlal Nehru, India. Another example can be found in the port of Antwerp, where Alfaport (association of private companies in the port), VOKA (chamber of commerce), the Left Bank Development Corporation, and Interwaas (local development association) have a seat on the board of directors.

In some cases, port users can be represented in advisory port governance bodies, as it is the case in Bremen with the Advisory Board and Los Angeles with the Community Advisory Committee, which make recommendations on port policies to decision-making entities. In France, representatives from private companies working in relation with the port are represented in the Supervisory Council (*Conseil de Surveillance*) and the Development Council (*Conseil de Développement*). Different types of companies are represented in this Development Council: shipping lines, stevedores, pilots, logistic providers and shippers present in the port area. In Barcelona, the Council for the promotion of port community of Barcelona gathers different entities working in the port (public and private) and makes proposals for the development of the port. Finally, port users can be involved in port governance on a more voluntary and exterior basis, with the establishment of associated associations, such as the Hamburg Port Marketing association in Hamburg, which gathers terminals, forwarders, shipping companies, packers, storage and logistics providers.

Port as local revenue source and investment opportunity

Ports are often direct revenue sources of local government; as such, the competitiveness of the port can be considered in the direct interest of the local government administration. There are various sorts of direct port revenues that could accrue to local governments: from profits and dividends, to concession income from land use by the port (in case the port land is owned by the local government), to special taxes or fees that the port has to pay to the local government. These revenue sources are in most cases defined in legislation; these stipulations could be in relative terms (e.g. X% of the profits³), in absolute terms (a X euro dividend per year), and some ports might have minimum thresholds (minimum X% dividend). There are even voluntary schemes whereby port and local government annually negotiate the amount to be paid. These revenues to local governments can be substantial: the amount of the dividend paid out by the port of Rotterdam in 2012 was EUR 65 million. Sometimes the return of the port authority to the local community is indirect: e.g. by sponsoring the realisation of a new museum (cf. MAS in Antwerp) or a new stadium. Port authorities also co-finance road infrastructure that supports the mobility of the wider community, not only the port. In some countries (e.g. Finland) it has been observed that local governments use ports as a source of discretionary revenue, that is: they generate revenues

from ports, without actually investing only in conditions that would secure their future competitiveness (Merk et al., 2012).

The local influence over a port is generally larger when the local government invests in the port infrastructure or infrastructure that is related, such as hinterland connections. Despite a system where the largest ports are owned by the central government, local authorities' investment shares in French ports now represent approximately a third of total public investment shares in these ports, ranging from 15% in Dunkirk to 38% in Nantes (Lacoste and Douet, 2013); this gives local governments influence over their ports that is not expressed in the official institutional frameworks. The inverse case is the United States, where federal support of dredging through the civil works programme of the Army Corps of Engineers is essential for many port-dredging projects. This dependence of US ports on federal support for both maintenance and new construction dredging not only limits the influence of local governments on their ports, but also inhibits the willingness of entrepreneurs to privatise them (Fawcett, 2007).

Local influence over staffing of the port

Mayors of some cities – particularly in the US – have the power to appoint port directors (in addition to the port president and/or the board of the port). This gives them control over the operational and implementation side of the port. So the port directors of the ports of Los Angeles, Long Beach, Oakland, San Francisco and San Diego are all nominated by their respective mayor and approved by their respective city council. Depending on the exact governance structure, the leaders of counties, regions and states can have similar powers. Sometimes, this power is shared among different local governments, e.g., the port director in Houston is appointed by the Harris County Commissioners Court and Houston City Council. In most countries, mayors or other local politicians do not have these powers, even if they are sometimes involved in the appointment of port directors; e.g. in Korea, where ports are owned by the national government, the mayor of Busan can give his advice on the appointment of the director of the port of Busan.

In many cases, the appointment process of port directors is diffuse and in the hands of more actors than just the local government, and as a result, port directors often lack local roots. As a matter of fact, it is difficult to find port directors of large ports that have a “local” profile. They have more often a background in their national government administrations or in industry. In some cases, such as France, there is a deliberate national policy to rotate port directors from one port to another, in order to avoid too much local connectedness. Recent moves from port directors include those from Dunkirk to Marseille, and from Paris to Le Havre. A distinction can be made between politicised hiring schemes and more business-based schemes. Politicised hiring schemes can be formal (politicians make formal decisions on who to appoint) or informal (politicians strongly influence the hiring process but do not take the final decision). The last case might result in a situation of having a depoliticised process on paper, but politicised in practice.

Local governments have a larger impact on port authority employees if the labour statute of these employees is linked to local public sector workers. This is for example the case if port authority workers have the same or similar labour agreements as those in the municipal sectors. Corporatisation of a port usually means that the port authority employees no longer have the same collective labour agreement, but they usually remain somehow linked to this system. In Lebanon, for example, port employees are not considered as civil servants; however, their employment is monitored by the Civil Service Council and approved by the Tutorship Minister (Baaj and Issa, 2001).

National involvement in port governance

The assessment of local port governance should take into account the extent to which the national government is controlling and directing its ports. The more this is the case, the less one could consider ports to be locally governed. In order to assess this, this section focuses on the existence of explicit national port policies and strategies, as well as national investment and inter-port equalisation systems.

National port policies and strategies

The existence of a national port policy could undermine local government involvement in ports. This is particularly the case if national port policy establishes a national port hierarchy, so somehow defines a port system in which some ports are of “national importance” whereas other ports merely represent regional or local importance; which is of particular impact if these ports of national importance also receive a priority treatment in terms of funding. The hierarchy determines in many cases which ports are governed nationally or locally. E.g., in India, the country’s 13 main ports are under the jurisdiction of the central government, while the 187 non-major ports are under the jurisdiction of their respective provincial/state governments (Gaur et al., 2011). Table 6 provides an overview of the countries that make legal distinctions between their different ports and, as such, have established some sort of port hierarchy. This table does not include policy priorities that are not embedded in legislation, such as the Dutch mainport-policy that has favoured the port of Rotterdam.

Table 6. Port hierarchies in national policies

Country	Port hierarchy
Canada	19 Canada Port Authorities (CPAs), 26 remote ports; in addition to regional or local ports
France	7 ports of national importance (GPMs), in addition to regional or local ports
Greece	12 ports of national interest
India	13 major ports, 187 non-major ports
Indonesia	25 strategic ports
Ireland	5 ports of national significance (Tier 1 and 2), 14 ports of regional significance
Italy	23 ports of national importance; in addition to ports of regional relevance, military ports
Korea	28 international trading ports, 23 coastal (local) ports, 9 new ports
Poland	3 ports of national importance
Portugal	5 main seaports, 4 secondary ports
Spain	44 ports of general interest, an unidentified number of ports of non-general interest

Source: ITF/OECD data compilation based on interviews and other data sources.

In some countries, such as Canada, remoteness of an area is an additional argument for a national government to get involved in its ports. Such motivations are however relatively rare, which could be explained by the fact that ports might be less attractive for policies such as territorial solidarity than other more omnipresent forms of transport infrastructure such as airports and roads, even if they have

traditionally played a major role as regional development instrument (Castillo-Manzano and Fageda, 2014).

The number of ports considered to be of national importance varies largely according to the country, which is logical considering differences in size and geography of countries, but there does not seem to be a clear relation between country size or coastline and number of ports that are considered of strategic national importance, see for example the contrasting cases of Spain and France. A similar port hierarchy can be defined at the supra-national level: the network of core ports in the European Union is considered to have supra-national importance and thus more likely to receive EU funding.

National ports policies are in some cases associated with a national ports authority, with branches in the different parts of the country (Table 7). Such a national port authority can cover all ports in a country, but in most countries there are ports that are not covered by the national authority, either because these are private ports, or for other reasons. In some countries dual systems exist, with a dedicated national authority responsible for ports, in parallel with independent port authorities; this is for example the case in Spain where *Puertos del Estado* exists alongside independent port authorities, a model replicated in countries such as Brazil, Chile and Colombia.

Table 7. **Countries with national ports authorities**

Country	Authority	Coverage	Main ports not included
Brazil	SEP	Public ports	Private ports
Chile	SEP	Public ports	Private ports
Colombia	Superintendente		
Morocco	ANP	Public ports	Tangier-Med
Philippines	PPA	Public ports	Private ports
South Africa	Transnet National Port Authority	Public ports	Private ports
Spain	Puertos del Estado	Public ports	

Source: Own data compilation based on interviews and other data sources.

There are various additional ways in which national port policies can interfere with local port autonomy. Some countries (e.g. South Korea) have an explicit port specialisation policy which limits the possibility of individual ports to attract desired cargo. Implicit port specialisation policies can be applied by central governments via their infrastructure investments; e.g. public investments in infrastructure connecting north Brazil with the grain producing regions in the centre of the country can be considered indirect policies to shift these cargo types to the north, away from the ports that traditionally handled these goods, such as Santos, Rio de Janeiro and Paranaguá. Other countries (e.g. South Africa) have policies that attempt to direct cargo to specific ports in their system, sometimes even via decisions on port tariffs. Yet other countries (e.g. France) impose on some of their ports to co-operate in inter-port committees. Such co-ordination mechanisms can also be more subtle; e.g. the national ports secretariat (SEP) in Brazil organises monthly meetings with all port administrations that serve the goal of policy co-ordination.

Investment and inter-port equalisation

National involvement in ports often takes the form of investment in port infrastructure or port-related infrastructure, such as hinterland corridors and dredging. Canada, with its Atlantic Gateway, is an example. Established in 2007, the Atlantic Gateway Federal-Provincial Officials Committee promotes ongoing collaboration between the Government of Canada, the four Atlantic Provincial Governments, and the private sector in the development of the Atlantic Gateway and Trade Corridor. The Atlantic Gateway and Trade Corridor is a fully integrated multimodal transportation system that offers deep water ports, efficient and reliable road and rail networks with access to US markets, and airports with air cargo access to/from international markets (Atlantic Gateway website). National governments are frequently responsible for dredging programmes and are able to sustain port hierarchies via these investments. This is for example the case in the US where the Harbor Maintenance Trust Fund (HMTF), appropriated by US Congress, is used by the US Army Corps of Engineers to dredge and other maintenance operations. Brazil also has a large national dredging programme, which serves as an implicit mechanism to establish a port hierarchy.

In many cases equalisation takes place between ports in the same country. Sometimes, such mechanisms are very explicit, as in the case of Spain. Since 2003, an Interport Compensation Fund exists (*Fondo de Compensación Interportuario*), that comprises contributions from ports with a surplus to finance investments and other expenditure at ports with a shortfall. However, similar processes exist in many countries, albeit more implicitly. In most countries with strong national influence, the profits from certain ports are used to cover losses from other ports. A good example is Transnet in South Africa: the Transnet National Port Authority (TNPA) levies port dues and marine charges. These charges are almost the same for all ports in South Africa although the investment costs (dredging, port development costs) can differ quite substantially between ports. Another example is Brazil, where ports can keep their surpluses but where the federal government provides the resources to loss-making ports.

Tendencies in local port governance

Although the involvement of different government levels in port governance has been relatively stable over time in most countries, there have nevertheless been changes and dominant tendencies in recent years. Various countries have decentralised their ports, or part of their ports system; there have been cases of port mergers that have changed the dynamics of local control; and there have been other related governance changes, such as corporatisation and convergence to landlord port models, which imply a larger distance of the port authority from local governments.

Towards more decentralised port systems?

There is a surprising lack of studies on port decentralisation. Academic work of devolution of port functions has mainly focused on the transfer of responsibility from a state authority to the private sector (e.g. Brooks and Cullinane [eds.], 2007), rather than the transfer from one level to another level of government (Debie et al., 2007). Most of the information presented here is based on the analysis of just a few countries.

Some countries have decentralised their port authority functions from the national to the local level (Table 8). The most notable example is China, where a new law came into effect in 2004 by which the Chinese central government transferred port ownership to provincial or municipal governments,⁴ even if the central government must approve all port strategic planning (Wang et al., 2004; Talley, 2009). In Brazil, Law No. 9 277, of 05/10/1996, authorised the Federal Government to delegate to states and municipalities, through the Ministry of Transport, the administration and exploitation of public ports. Other port decentralisation reforms have taken place in Argentina, Canada, France and Spain. The inverse situation, so the centralisation of locally controlled ports, has only rarely taken place.

Table 8. **Port decentralisation reforms**

Country	Year(s)	Ports that have been decentralised
Argentina	1992	39 of 40 public ports, with exception of Buenos Aires
Brazil	1996	Upon request by state governments. 9 of the 15 largest ports have been delegated
Canada	1995-05	All ports, except 19 largest ports and 30 “remote” ports
China	1987	37 of 38 major ports to dual (national-local) system
China	2002	37 ports to local government; Qinhuangdao port to province; inland ports to municipalities and some provinces
France	1983-84	Commercial and fishing ports, with the exception of 17 “ports of national interest” and 6 “autonomous ports”
France	2002-04	17 “ports of national interest”, including Calais and Sète
Spain	1997	All ports; decentralisation concerns appointment of board and chairman of port

Source: ITF/OECD data compilation based on interviews and other data sources.

Most port decentralisation reforms have taken place in different, subsequent stages. This was for example the case in China, which allowed for trial and error in the first stage and a more radical reform

in the second stage. In France, a first reform decentralised commercial and fishing ports, with the exception of 17 “ports of national interest” and six “autonomous ports”; in the second reform the 17 “ports of national interest” were decentralised. In Canada, the reform was stretched out over a period of 10 years (1995-2005).

Decentralisation often results in a diversity of port governance models. In France, ports were decentralised to regions that could choose to take on the responsibility as port authority or shared it with other local governments in mixed governance structures, e.g. including with city-regions (*communauté d’agglomération*), the municipality, or the local representative of the state (*département*). In Canada, the port decentralisation reform resulted in the transfer of 65 ports to other federal departments, 40 to provincial governments (mainly ferry ports), 123 to local interests, and 238 de-proclaimed as public harbours or demolished (Debie et al., 2007). Diversity of governance models is also an outcome of the port decentralisation reform in Argentina: the reform allowed the provinces to adopt a differentiated port management model with each port adopting the model best adapted to its constraints and preferences. The resulting wide spectrum of management models varies from centralised provincial systems to autonomous administrations. In most provinces the largest ports are landlord ports, whereas the medium- and small-sized ports are tool ports. In fact, some of the provinces have themselves decentralised to municipalities, a process that resulted in the closure of a large number of small ports considered redundant by the provinces (Serebrisky and Trujillo, 2005).

Some of these decentralisation reforms have attempted to avoid the transfer of too many responsibilities to municipalities. The reason is that issues related to quality of life, urban landscape, traffic congestion and other negative impacts were considered to shape the positions of urban politicians, ignoring the role of ports in regional and national economic development and manufacturing supply chains, which was typically more associated with higher levels of government (Debie et al., 2007). Transport Canada has in its negotiations tried, whenever possible, to exclude a municipality from acquiring sole ownership. In most cases where municipalities are involved, they share ownership with other agencies, public and private to ensure that urban interests do not override commercial activities. Furthermore, the acquiring parties have to agree to maintain the port site as public port facilities for a fixed number of years in the future (Debie et al., 2007). In France, the role of municipalities in port decentralisation is negligible, except for Sète and Calais.

There is some empirical evidence on the impact of port decentralisation reforms in Spain. Rodríguez-Álvarez and Tovar (2012) show that there are modest efficiency gains associated with the 62/1997 Law that enabled regional governments to participate in the decision-making bodies of the port. However the efficiency gains are much smaller than those associated with the reforms that facilitated the change from a “service port” to a “landlord port”. This is in line with the study of Núñez-Sánchez and Coto-Millán (2012) that concluded that the Spanish port reforms, including port decentralisation, have contributed to total factor productivity growth. At the same time, the transfer of political control over ports to regional authorities has had no effect, either positive or negative, on the evolution of maritime traffic in the Spanish port system, despite the dual port management system since 1997 and regional governments controlled by different political parties than those controlling the central government, which could have given the possibility of favouring public investment and labour hiring in ports of similar political colour (Castillo-Manzano et al., 2010).

Theoretical modeling of centralised and decentralised port governance have been applied to the container terminals in the port of Shanghai; the outcome of this exercise showed that decentralisation promotes port efficiency and development, without necessarily leading to excessive port capacity (Zheng and Negenborn, 2014).

The outcome of the federal devolution process of ports in Canada has varied based on the ability of each remote site to attract investment from other levels of government and or the private sector (Davis, 2012). Many local communities were unwilling to assume management of small ports, as these sites were considered less commercially attractive (Dion, Slack and Comtois, 2002). According to some authors, the federal government essentially ended all involvement with the administration of small ports (Debrie et al., 2007): most remote ports were exempt from municipal taxation when under federal ownership, but many divested sites faced significant taxation rates following devolution. As federal expenditures wound down, some remote ports closed while others engaged in partnerships and sought new markets in Canada and abroad for their services.

Port decentralisation reforms might result in more efficiency because of the greater autonomy that it could bring. Various studies illustrate that the higher degree of autonomy in port management brings about gains in efficiency and performance (Estache et al., 2002; Cullinane et al., 2002; Tongzon and Heng, 2005). This higher degree of autonomy may be due to decentralisation (Barros, 2003; Gonzalez and Trujillo, 2008), among other factors.

Other studies find more modest effects of governance on port performance. Evans and Hutchins (2002) observed that local governance factors have been of middling rather than major significance to the competitiveness of the Port of Liverpool. Although market factors and national government decisions appear to be much more important than local governance, the port has been hindered in its development by fragmented, contested governance. Limited local engagement, on the part of the Mersey Docks and Harbour Company (MDHC), with other stakeholders and its scant regard for community involvement has also reduced the scope for synergy with other forms of government (Evans and Hutchins, 2002).

Regionalisation and port mergers

Table 9. Main port mergers

Country	Merged ports	Size of the merged ports	New port	Year
Netherlands	Terneuzen, Vlissingen	Similar	Zeeland Seaports	1998
Denmark, Sweden	Copenhagen, Malmö	Similar	Copenhagen Malmö Port	2001
China	Ningbo, Zhoushan	Similar	Ningbo-Zhoushan Port	2006
France	Caen-Ouistreham, Cherbourg	Similar	Port of Normandy Authority	2007
Canada	Vancouver, North Fraser Port, Fraser River Port	Dissimilar	Port Metro Vancouver	2008
Finland	Kotka, Hamina	Similar	HaminaKotka	2011
Australia	Sydney, Botany Bay, Newcastle, Port Kembla, Yamba, Eden	Similar	Port Authority of New South Wales	2014

Source: ITF/OECD data compilation based on interviews and other data sources.

Port mergers are not common, but there are various cases in which locally controlled ports have merged (Table 9). Proximity and the presence of a common threat (e.g. Oresund bridge in the case of Copenhagen and Malmö) seem to be strong determining factors for mergers. In many cases, there was

some kind of national pressure to realise such a merger and overcome local rivalries, but there were also examples where local port authorities decided on this relatively autonomously. Central governments typically have other motives for mergers (e.g. avoid duplication, more rational investment planning, avoid destructive competition between national ports, achieve a specialisation of ports) than local governments (e.g. securing capacity for growth elsewhere when own capacity for expansion is limited, neutralise competing ports, broaden the choice available to customers, etc.). In some cases, port mergers have coincided with port decentralisation reforms, as in France and China.

Table 10. **Participation of seaports in inland ports and terminals**

Seaport	Inland port	Share (in %)
Ningbo	Taicang, Wanfang Terminal	100
	Nanjing, Mingzhou Terminal	100
	Jiaxing, Fuchun Terminal	100
	Wenzhou, Jinxin Terminal	45
	Taicang, Wugang Terminal	55
South Carolina	Greer Inland Port	100
Virginia	Virginia Inland Port	100
Shanghai	Chongqing Container Terminal	50
	Jiujiang Terminal	50
	Wuhan Container Terminal	49
	Nanjing Longtan Container Terminal	25
	Jiangyin Container Terminal	30
	Wenzhou Container Terminal	20
Barcelona	Zaragoza Terminal	21.55
	Guadalajara Multimodal Terminal	49
	Perpignan St. Charles Terminal	5
Antwerp	Geleen Rail Terminal	33.3
	Beverdonck Container Terminal	20
Le Havre	Paris Terminal Gennevilliers	
Marseille	Lyon Terminal	16
	Pagny Terminal	10

Source: ITF/OECD data compilation based on interviews and other data sources.

Port mergers fit in a larger picture of port regionalisation, in which port authorities increasingly seek consolidations or acquisitions of other seaports or inland ports in the area that could help to improve port-hinterland connectivity (Notteboom and Rodrigue, 2005) (Table 10). Greater autonomy of port administrations facilitates these participations. In some cases the port authority participates directly (cf. Antwerp) while in other cases a port authority subsidiary, port operating company or investment holding related to the port authority is involved in the participation (e.g. Shanghai International Port Group - SIPG as operating entity of the Shanghai port authority). Also, it is important to underline that

the participation can involve pure landlord functions (such as land management) while in other cases the port authority also takes part in the actual terminal and/or logistics operations (cf. SIPG on the Yangtze River). A port authority acting as landlord of a seaport area might consider acting as tool port in an inland port. In many parts of the world, participations of seaports in inland ports are not common, because their corresponding ministries or government bodies are different. In Brazil, for example, seaports fall under the jurisdiction of the Ports Secretariat (under the presidency), whereas inland ports fall under the Ministry of Transport.

Other related port governance reforms

Port corporatisation reforms, frequent over the last decade (Table 11), have transformed ports into corporate entities with profit targets. As such, they have pushed port authorities, mostly former municipal departments, further away from municipal governments. However, there are still various ports in the world that continue to be municipal government administrations (e.g. Shenzhen). Bergantino et al. (2013) provide evidence that greater autonomy granted to ports through governance reforms has had beneficial effects for the ports considered (30 large European ports), in particular with respect to the area of the port used for handling freight and port equipment. De Langen and Heij (2014) show that the corporatisation of the port of Rotterdam is associated with significant improvements on eight performance indicators.

Table 11. **Selected port corporatisation reforms**

Country	Port	Year
Finland	Kotka	2000
Korea	Busan	2003
Netherlands	Rotterdam	2004
Korea	Incheon	2005
New Zealand	Auckland, Tauranga	1987-1988
Netherlands	Amsterdam	2013

Source: ITF/OECD data compilation based on interviews and other data sources.

A related reform is the convergence towards the landlord model, which has meant that port operations formerly conducted by the port authority have been opened up for competition and the private market. This has often resulted in global terminal operators entering the port through land lease and concession agreements with the port authority. While this development has limited the local (corporate) influence over the port, port authorities can use concession agreements to structure the port market and to ensure that private terminal operators take into account the port authority's objectives (Notteboom, 2006). Such reforms can strengthen or limit the role of local authorities. The 2008 French port reform intended to strengthen the position of local authorities, but actually weakened it, as local authorities lost decision-making power in the supervisory board and only got an advisory place on the development council (Lacoste and Douet, 2013).

Despite the convergence towards a landlord model, there are considerable differences in the practical implications and also how local institutional are embedded in port operations. The city-state of Hamburg is major shareholder in the largest container terminals in Hamburg (HHLA) as well as major shipping lines operating from Hamburg (Hapag-Lloyd). A similar structure is in place in Singapore, where the major private terminal operator, PSA, is 100% owned by Temasek Holdings, a wholly owned subsidiary of the Singapore government (Cullinane et al., 2007). Some countries have privatised their

port authorities, which in some cases implied the transfer of responsibilities of a subnational government to a private actor, e.g. in certain Australian ports. Auckland, in New Zealand, is one of the few examples where local government has bought back shares that were previously floated on the stock market.

Table 12. **Selected other port reforms**

Country	Reform	Year
Mexico	Creation of autonomous port authorities	1993
Portugal	Creation of autonomous port authorities	1998
Spain	Creation of autonomous port authorities	1992
Chile	Creation of autonomous port authorities and landlord model	1997
Argentina	Establishing landlord model	1992
Uruguay	Establishing landlord model	1992
Brazil	Establishing landlord model	1993
Italy	Establishing landlord model	1994
Portugal	Establishing landlord model	1998
Spain	Establishing landlord model	1992, 2003
France	Establishing landlord model	2008
Malta	Establishing landlord model	2009

Source: ITF/OECD data compilation based on interviews and other data sources.

Impacts of local port governance

The assessment on the criteria above has been used here to create a ranking of the ports with the largest local government control. This ranking has taken six indicators and assigned a score calculated an average score, without weighing the factors. The six indicators include: ownership of ports by local governments, influence of local governments on port decision making, port as local revenue source, local influence over staffing of the port, national port policies, investments and inter-port equalisation. The scores on each indicator could range from 0 (lowest possible local government involvement) to 2 (highest possible local government involvement). The scores on the six indicators (given in Annex 1) were added up and divided by six to come to an average score on local government involvement. Although evidently debatable and disputable, the ranking could provide for a more scalar approach than the current situation, where governance profiles of ports in this respect continue to be fairly dichotomous (either considered locally or nationally controlled ports). Moreover, such a ranking is necessary if governance is to be linked to port impacts. The scores are necessarily subjective, but are based on the material presented in the sections above. Ports that are located in city-states, such as Singapore, are not included in this ranking, because the national and local governments are one and the same.

The ranking confirms the general perception that ports in northern Europe have the largest local government involvement: Antwerp, Hamburg, Bremen and Gothenburg are prime examples (Table 13). Ports with significant local government involvement include those in Japan, the United States and China. The ranking shows differences between ports that are frequently grouped together, such as the southern European ports, and that most emerging countries have predominantly national port governance models.

There is a wide range of studies on the impacts of ports. However, these impacts are rarely connected to port governance. Our overview and assessment of indicators on local government control of a port, as well as the aggregation into one ranking, allows for a connection with port impacts. This will be done on four different impacts: employment, economic value added, agglomeration effects and the environment. As the main methods for assessing the employment and value added impact in this paper are similar, these will be considered together in the section below.

Do local ports create more local port-related jobs?

One could assume that locally controlled ports are more focused on realising local employment and value added effects of the port, so would push for port policies that result in higher port-related employment and value added. There are various examples of locally controlled ports where the municipality has indeed pushed for such “smart” port policies (e.g. Amsterdam). But has local government control of the port helped to create more local port-related employment than in nationally controlled ports? One way to establish this is to confront the local government’s control of port scores with the (direct and indirect) port-related employment per ton cargo throughput. These last data are available from a meta-study on port economic impact studies conducted by the ITF/OECD (forthcoming). Using this dataset is not without methodological challenges; while the methods for calculating employment (and impact) in the studies are different, at the same time, the study also makes the outliers (and thus its limits) visible. From this database, 64 observations were included, considering availability of scores on the local government involvement and availability of port impact information.

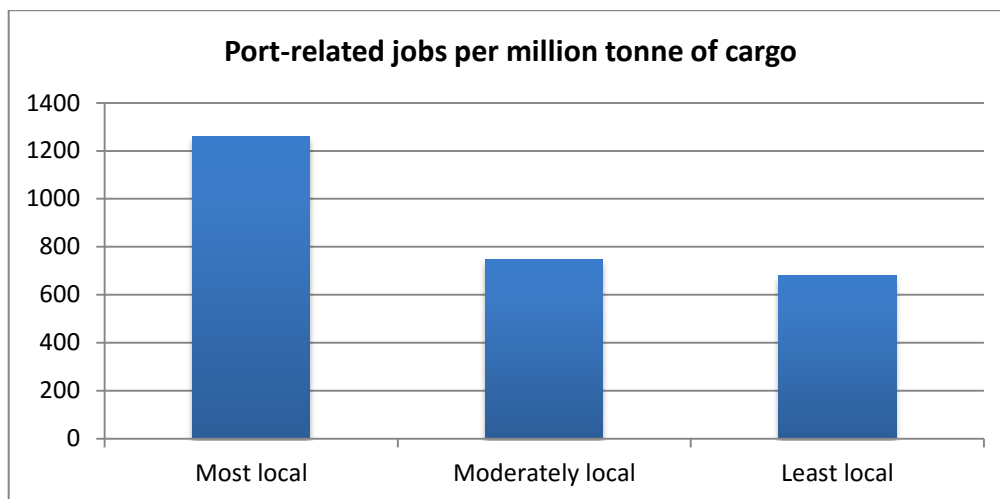
Our analysis shows that ports with high local government involvement tend to have more port-related employment, almost twice as much as the ports with the least local government involvement. The average amount of port-related jobs per million ton of cargo appears to be slightly more than 1 200

jobs for the ports with the most local government involvement (Figure 1). The differences between the moderately local and least local ports are fairly small, which might suggest that the impact of adding some local government involvement in a predominantly national ports system is relatively small.

Table 13. **Ranking of ports based on local government involvement**

Port	Country	Average score
Antwerp	Belgium	2.00
Helsinki	Finland	2.00
Bremen	Germany	2.00
Hamburg	Germany	2.00
Tokyo	Japan	2.00
Nagoya	Japan	2.00
Gothenburg	Sweden	2.00
Long Beach	United States	1.83
Los Angeles	United States	1.83
Hong Kong	People's Republic of China	1.67
Ningbo	People's Republic of China	1.67
Shenzhen	People's Republic of China	1.67
New York-New Jersey	United States	1.67
Rotterdam	Netherlands	1.50
Shanghai	China	1.33
Riga	Latvia	1.00
Algeciras	Spain	0.75
Barcelona	Spain	0.75
Valencia	Spain	0.75
Busan	Korea	0.67
Le Havre	France	0.40
Marseille	France	0.40
Tanjung Priok	Indonesia	0.33
Vancouver	Canada	0.33
Piraeus	Greece	0.33
JNPT (Mumbai)	India	0.25
Port Klang	Malaysia	0
Tanjung Pelepas	Malaysia	0
Port Said	Egypt	0
Ho Chi Minh City	Viet Nam	0
Jeddah	Saudi Arabia	0
Colombo	Sri Lanka	0
Manila	Philippines	0
Salalah	Oman	0
Santos	Brazil	0
Ambarli	Turkey	0

Source: ITF/OECD elaboration.

Figure 1. **Relation between local government involvement and local port-related employment**

Source: ITF/OECD elaboration.

There are various elements that complicate this exercise. There might be a selection bias: locally controlled ports might have a greater interest in showing large local employment effects, because local politicians will be judged on this, so they will be more motivated to have conduct and release positive port impact studies. Nationally controlled port systems, on the other hand, might be less interested in the impacts of individual ports, which could explain the smaller availability of port impact studies in these countries. There is another complication: the same factors that make a port a node of “national importance” (transshipment and gateway functions, diversity of cargo categories), and thus could justify more national involvement, also cause economic spillovers to other regions and relatively limited local economic impact. So are they having little local impact because of their governance or because of their national importance? The cargo mix of a port could also have an impact on the results. Many of the ports with a strong local government involvement are situated in cargo-rich areas with a long history (such as Hanseatic cities). These ports typically have a strong focus on trading and the handling of commodities and products with a high value added and employment impact. Containerisation has reduced these effects.

Agglomeration and inter-regional economic effects

The basic assumption here is that locally controlled ports would be more interested in creating agglomeration effects in ports, because these would enhance local employment and value added. So the ultimate objective is similar to the one in the previous paragraph, but the policy instrument and intermediate output would be different. The policy instrument would be stimulating inter-firm linkages in the port (e.g. by choices in clustering activities in the port master plan) and the way to assess success would be to assess the actual inter-firm linkages in the port.

The test is to assess the inter-firm linkages in various port areas. We have done this using the data from the various OECD port-city case studies in which we have quantified the backward linkages of various ports in an inter-regional perspective; these datasets make it possible to identify the inter-firm linkages within the port area and the port region. Such data exist for Rotterdam, Antwerp, Le Havre/Rouen, Hamburg and Marseille. These data have been confronted with the local government control score (Table 14).

Table 14. **Link between local government involvement and local economic interlinkages**

Port	Interlinkages within port and port region (multiplier)	Local government involvement score
Antwerp	1.10	2.00
Hamburg	1.03	2.00
Rotterdam	1.06	1.50
Le Havre	1.05	0.44
Marseille	1.06	0.44

Source: ITF/OECD elaboration.

These numbers show no clear link between local government involvement in ports and the local economic interlinkages. The highest score with regards to the multiplier within the port and port region is in Antwerp, which also has the highest possible score for local government involvement. Hamburg, however, scoring similarly high on local government involvement, has the lowest score on the multipliers. Moreover, Rotterdam – having far more local government involvement than Le Havre and Marseille – has similar multipliers within the port area and the port region. So at first sight, the connection between the two indicators is not clear. Other factors, such as the economic sector structure in the region and port specialisation might be more important determinants of local economic interlinkages.

Are local ports greener?

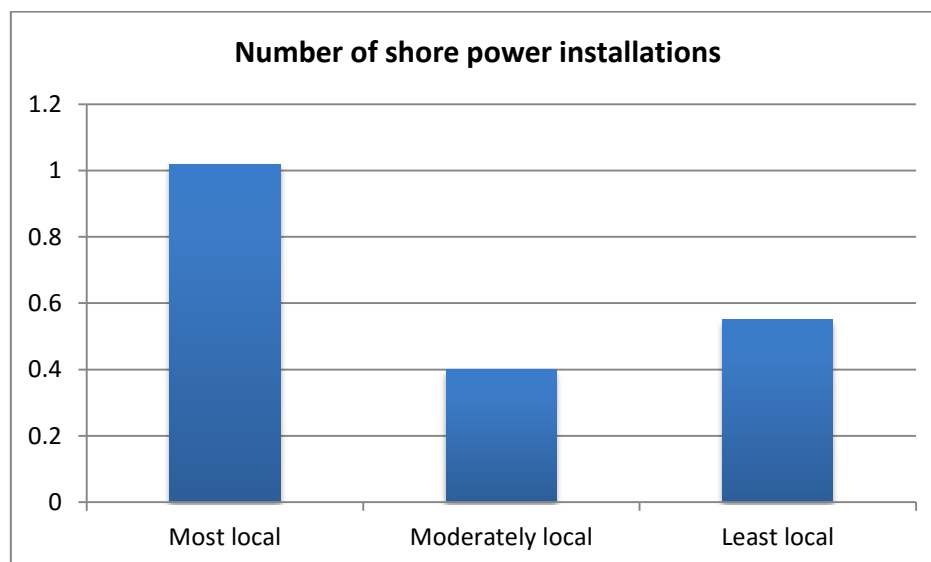
The starting assumption here would be that locally controlled ports would be more sensitive to the environmental impacts of the port, as it is their electorate that is directly affected, so they would be more active in pushing for green port policies. A way to test this is to confront the local government control score with a proxy for environmental port policies, namely the number of on shore power facilities in the port. On shore power allows ships to switch off their engines and thus to stop the air emissions from ships during their stay in the port.

Our analysis shows that ports with the most local government involvement have on average twice as much on shore power installations in their ports (Figure 2). This is based on a dataset of 73 ports, consisting of the largest ports on the different continents, with data on the availability of shore power installations and a score on local government involvement. It should be noted that there are various other ports with high local government involvement in Sweden, Finland, Norway and Germany. While these ports have installed shore power, they are not included in this analysis because they are smaller ports. We have focused here on the largest ports for reasons of comparison. The results are in line with the expectation that ports with significant local government involvement would be more sensitive to local impacts, such as air pollution.

This does not necessarily mean that local government involvement leads to more port environmental policies or better environmental performance. There are various determinants that could explain the availability of on shore power in ports, including the proximity of the port to the city (more impacts need more solutions), port specialisation (sectors with regular calls such as ferries, container lines and cruise lines provide better business cases for on-shore power), and the environmental sensitivity of population, politicians and enterprises. Nevertheless, local government involvement in ports seems to qualify as one of the determinants. Additionally, shore power can be considered one of various policy measures for tackling air pollution of ships; some ports that might rely more on alternative measures, such as

scrubbers or cleaner fuels, might thus not be well presented by the single criterion of shore power facilities. Or these various types of measures may be seen by the authorities not as alternative but complementary in a concerted effort towards pollution reduction: most of the sulphur emissions control areas (SECAs), which regulate the level of sulphur content in ship fuels in that area, are actually located in the parts of the world with the highest number of shore power connections, such as the Baltic Sea, North Sea and North America.

Figure 2. **Ranking of local government involvement and number of shore power installations in the port**



Source: ITF/OECD elaboration.

Do local ports create terminal overcapacity?

One of the setbacks of local port governance could be the creation of terminal overcapacity. If ports with large local government involvement can indeed be considered engines for local employment and revenues, local governments will have an incentive to make their port competitive, but also to expand to increase the positive local effects. Local officials might even have direct financial incentives to grow the port, as their salary package might be linked to growth perspectives of the port. The very intense port competition in China is understood to be at least partly a function of the ambitions of local officials that grow the port as a way of advancing their own bureaucratic career. In many countries, competition between local ports evokes century-old rivalries between cities.

There are some empirical indications that seem to illustrate this link. Utilisation rates of container terminals in Europe are very low in regions with ports predominantly under local government control: Scandinavia and the Baltic States (37% in 2016) and North West Europe (57%). In comparison the utilisation rates of port regions with relatively more national government control are higher: e.g. 66% in the West Mediterranean (based on data from Drewry, 2016). Most of the recent extensions of port capacity in North West Europe were planned in ports that are predominantly under local government control (Rotterdam's Maasvlakte 2 and the Jade-Weser port in Germany), seemingly independently from each other. That said, there are of course other factors that also determine terminal overcapacity, such as demand shocks and long decision making procedures for infrastructure, which complicate the balancing of terminal capacity with actual demand.

National government involvement could mitigate these tendencies of terminal overcapacity. Various measures described earlier could serve the goal of deploying container port capacity in line with real needs, instead of in line with growing market shares vis-à-vis competitors. These measures include port hierarchies, national freight corridor plans and financing schemes where many ports compete for scarce funds. Some of the large ports that operate in highly decentralised port systems could benefit from some more national steering. E.g. the Swedish port of Gothenburg might require more recognition of the national government for its essential role of gateway to the country, which could justify national funding which might be much less justified for Sweden's smaller ports (ITF, 2016a).

Considering that port competition in many parts of the world crosses national boundaries, some sort of supra-national co-ordination might be required. Even if national governments could provide an effective break on port overcapacity, their effectiveness is limited in port ranges where ports compete with ports from other countries. In these cases, some sort of co-ordination between these ports or different port nations might be useful to avoid that the interplay of independent ports leads to overcapacity of terminal capacity which will have detrimental effects for all ports, as it would allow shipping companies to pressure ports to lower fees or provide more service, applying the very realistic threat to shift cargo to competing ports in the same range.

Towards effective port governance?

There is a wide variety of practices with regards to local government involvement in port governance. This is not a black and white subject; most port governance arrangements are hybrid, so it is about different shades of grey. Such hybrid governance structures seem appropriate considering that most large ports depend at the same time predominantly on their regional market, but at the same time can have substantial economic spillovers to other regions.

There is a slight shift from national government involvement towards more local government involvement in ports. There are various large countries that have engaged in port decentralisation reforms over the last decades, including China, Argentina, Canada, France and Spain. The inverse case – i.e. port centralisation – is very rare. Port decentralisation is also frequently part of a larger set of port reforms including liberalisation, corporatisation and privatisation of port operations (i.e. moving towards a landlord port governance model).

One of the arguments in favour of local government involvement in ports is the proximity to the port market and the community. It is often stated that local governments are better than central governments in managing ports as they are much closer to the real action, and are thus much better placed to detect and react to market opportunities, community issues, etc. This proximity and responsiveness is much more difficult to achieve when ports are run by civil servants who are hundreds of kilometres away from the action. Our analysis shows that local government involvement in ports frequently comes together with net positive port impacts, such as port-related employment and active air emissions policies in the form of shore power facilities. This report identified various indications for this, but also indicates the need for more research in order to assess the causality of local government involvement in ports.

What are the implications in terms of policy recommendations for port governance? This is probably dependent on the local situation, such as the extent of inter-regional spillovers from port activity. The potential of some ports might be unleashed if part of the national government responsibilities or ownership would be decentralised, whereas some ports might actually be trapped into too much local government involvement, that constrains their possibilities to act as a national gateway. There is a need for ports to frequently monitor to what extent current institutions are still contributing to performance. That said, institutional traditions and political practices continue to contribute to the variance in port governance models observed, at the local, regional and national level (Brooks and Pallis, 2012). In this respect, it would seem relevant to consider also the overall level of political maturity of local governments in each country, largely associated with the effective level of decentralisation of power from the national to regional and local governments. A more established local culture of managing for the public interest would certainly be a good basis for a stronger role of local government in port governance. Every reform brings transaction costs; the political economy of port reform is an understudied subject and might benefit from more research, based on the great amount of port reforms that have taken place over the last decades.

Our report did not capture the extent of involvement of local (or national) politicians in ports. The experience of various ports that were parts of municipal administrations is that the involvement of local politicians could work as a brake on decision-making processes. This can have different impacts. Political involvement could slow down discussions most of which are fairly technical, so might not need extensive political discussions. These could also hinder pro-active and entrepreneurial activities

necessary for port growth; at worst, the port could be used for political purposes. At the same time political control could avoid public money being used for engaging in what are basically private activities; these could be left to the market. Acknowledging that the subject deserves more attention, a tentative conclusion could be that most ports operate most effectively at a certain distance from local politics.

However, some sort of political control seems necessary, especially within the context of the tendency of corporatisation of port authorities. This is the design of port authorities as companies, with commercial targets, instruments and mode of operation. In these cases, even if the local government continues to exert control, the port authority risks to move away from attention to local interests, such as employment and environment, but instead focus almost exclusively on commercial targets. Although we did not test this, we could assume that corporatisation of decentralised ports takes away some of the benefits of a decentralised port, and might indeed require some safeguards to make sure that the port authority still keeps local public interests at heart. Ways to ensure this could include extensive stakeholder consultation and more intensive communication with local citizens and stakeholders. In Chile, public ports need to engage with city stakeholders via so called Port-City Committees to improve the relations between ports and cities (ITF, 2016b). Even if their implementation has been slow, such mechanisms might prove effective in taking local public interests into account.

Annex 1. Ports and local government involvement

Port	Local ownership	Local influence decision-making	Local revenue source	Local influence staffing	National port policy	Investment and equalisation	Average score
Antwerp	2	2	2	n.a.	2	2	2.00
Helsinki	2	2	2	n.a.	2	2	2.00
Bremen	2	2	n.a.	n.a.	2	2	2.00
Hamburg	2	2	2	n.a.	2	2	2.00
Tokyo	2	2	n.a.	n.a.	n.a.	n.a.	2.00
Nagoya	2	2	n.a.	n.a.	n.a.	n.a.	2.00
Gothenburg	2	2	n.a.	n.a.	n.a.	n.a.	2.00
Long Beach	2	2	2	2	2	1	1.83
Los Angeles	2	2	2	2	2	1	1.83
Hong Kong	2	2	n.a.	n.a.	1	n.a.	1.67
Ningbo	2	2	n.a.	n.a.	1	n.a.	1.67
Shenzhen	2	2	n.a.	n.a.	1	n.a.	1.67
NY-New Jersey	2	2	1	2	2	1	1.67
Rotterdam	1	2	2	n.a.	1	n.a.	1.50
Shanghai	1	2	n.a.	n.a.	1	n.a.	1.33
Riga		2	n.a.	n.a.		2	1.00
Algeciras	0	2	n.a.	n.a.	1	0	0.75
Barcelona	0	2	n.a.	n.a.	1	0	0.75
Valencia	0	2	n.a.	n.a.	1	0	0.75
Busan	0	2	n.a.	n.a.	0		0.67
Le Havre	0	1	1	0	n.a.	0	0.40
Marseille	0	1	1	0	n.a.	0	0.40
Tanjung Priok	0	0	n.a.	n.a.		1	0.33
Vancouver	0	1	n.a.	n.a.	0		0.33
Piraeus	0	1	0	n.a.	n.a.	n.a.	0.33
JNPT (Mumbai)	0	1	n.a.	n.a.	0	0	0.25
Port Klang	0	0	n.a.	n.a.	n.a.	n.a.	0
Tanjung Pelepas	0	0	n.a.	n.a.	n.a.	n.a.	0
Port Said	0	0	n.a.	n.a.	n.a.	n.a.	0
Ho Chi Minh	0	0	n.a.	n.a.	n.a.	n.a.	0
Jeddah	0	0	n.a.	n.a.	n.a.	n.a.	0
Colombo	0	0	n.a.	n.a.	n.a.	n.a.	0
Manila	0	0	n.a.	n.a.	n.a.	n.a.	0
Salalah	0	0	n.a.	n.a.	n.a.	0	0
Santos	0	0	n.a.	n.a.	n.a.	0	0
Ambarli	0	n.a.	n.a.	n.a.	0	n.a.	0

Source: ITF/OECD elaboration.

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Notes

- ¹ This report focuses on multi-user cargo ports, so governance of military ports or private company ports are not assessed here.
- ² They are resistant over time when the ports were established a long time (even centuries) ago. This is particularly the case for the old Hanseatic League ports (although some form of corporatisation has taken place in most of these ports). For newer ports, the ownership patterns seem to be more volatile; e.g. the new port of Zeebrugge used to be owned by the Flemish government and is now a municipal port.
- ³ E.g. 60% of the profit in the case of Rotterdam. That is 60% from 2021 onwards when the investment costs of the Maasvlakte 2 port extension have been amortised.
- ⁴ Mostly municipal; only Qinhuangdao is provincial (Province of Hebei).

Local Governments and Ports

This report compares the different ways in which local governments are involved in running ports and offers recommendations for more effective port governance. Around a third of the world's largest ports are controlled by local governments. How do they perform this role, and with what results? Specifically, what are the impacts of local governments' port policies on local job creation and greening ports?

This report is part of the International Transport Forum's Case-Specific Policy Analysis series. These are topical studies on specific issues carried out by the ITF in agreement with local institutions.

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