11 Regulation of the global transport industry: an institutional account

Wouter Jacobs and Bart Kuipers

1. INTRODUCTION: AN INSTITUTIONAL ACCOUNT OF REGULATION

Regulation of economic activity takes place through a complex web of rules, (property) rights, laws, institutional arrangements and coordination mechanisms. The regulation of economic activity forms the superstructure upon which modern capitalist societies are built. It is through this superstructure that markets are governed as it constrains and enables economic transactions, the allocation of resources and the distribution of wealth within and among societies. The rules governing capitalist relations are created by ‘the public’ (Lindblom, 2001) and enforced by the state through the political and legal systems in place that are historically embedded within the deeper social, cultural and geographical characteristics of that particular society (North, 1990, Amin and Thrift, 1994, Martin, 2000). Regulation as such has been the prime responsibility of nation-states, being the dominant form of political-economic organization of much of the twentieth century. This explains the ‘variety of capitalisms’ – or the different forms of regulation, economic governance and business organization models – observed around the world (Whitley, 1999, Hall and Soskice 2001).

However, during the last decades of the twentieth century a process of national deregulation took place, driven by neo-liberal hegemonic discourses, aimed at facilitating the integration of national economies into an evolving world economy and to foster more market-driven forms of economic governance and self-regulation. At the same time, regulation has become increasingly formulated on supra-national levels such as the World Trade Organization, the European Union, the North American Free Trade Association (NAFTA), especially on the issues of the environment, state support, trade barriers, (intellectual) property rights and security. Hence, Hollingsworth and Boyer (1997) speak of an evolution or transition from the national embeddedness of institutions and regulations to a spatial nestedness across different spatial scales: from the global to the local and from the macro to the micro.
Regulation not only takes place across spatial and/or territorial lines. Regulation is specific for economic sectors. Economic sectors are a complex social configuration of a historically identifiable productive sphere or as a population of firms producing a specific range of potentially or actually competing goods or services (Hollingsworth et al., 1994). The production spheres are identifiable because they make use of specific technologies with specific demands for labour that create distinct product use values and (negative) externalities, which are linked in a competitive arena of global, national or local markets. Therefore, agriculture is a different sector than finance and therefore specific forms of regulations exist. In addition to specific territorial differences in the regulation of specific industries, sectors possess specific capacities of self-regulation, most notably through collaboration. Industry and labour associations possess distinct self-regulation capacities by setting technology standards or by enforcing codes of conduct and quality through branch-specific certification procedures or through collective bargaining.

Also within the transport sector, different subsectors have important characteristics: transport by air, sea (deep sea/short sea), rail, road, barge and pipeline. Depending on the type of transport activity, different regulations exist regarding the safety of workers or regarding the type of (hazardous) goods being carried. But also regulation is initiated to influence the capacity of different subsectors and transport modes in order to produce desired societal outcomes, such as an increase in the market share of relatively ‘clean’ transport modes such as inland shipping, at the expense of less clean modes, for example freight transport by road. Most of these regulations differ per country and are set up at different administrative-territorial scales: from the local to the global.

In this contribution we deal with transport regulations across different spatial scales and within the different subsectors in the transport or shipping industry, with a focus on Europe. In the next two sections we will give a theoretical overview of the motives for regulation and deregulation in the transport sector. Based upon these more general sections, we present a number of specific cases of regulation in the transport industry. These cases are presented from two different levels: the global or international level and the European level. In addition, these cases are drawn from different subsectors that constitute the transport industry and include various regulatory issues (pollution, security, antitrust, contracts, and market access). Based upon these cases, we draw conclusions in the final section.
2. WHY REGULATE THE TRANSPORT SECTOR?

Transport of goods and persons is often considered a distinct industry because of its spatial and functional characteristics. Market intervention in the transport sector by regulation is justified because of these particular characteristics. First, the transport sector is associated with: high fixed costs, a long life of the means of production, lower limits to and limited divisibility of investment, the impossibility of storing production (Baum, 1993). Second, transport is derived demand as it depends on the geographical distance between supply and demand or between production centres and (consumer or labour) markets (Knox et al., 2008). These geographical distances imply that transport often crosses state boundaries and jurisdictions, making it subject to different regulatory regimes and, therefore, to a need for harmonization. Third, while transport activities are most typically carried out by private enterprises, they largely depend on hardware infrastructure that in many cases resemble public goods and involve large capital investments by the state. There is a correlation between transport services and investment in infrastructure: through regulation of transport services production, infrastructure needs can be adjusted, while through the infrastructure, the supply of transport services production can be influenced (Baum, 1993). Fourth, as an economic activity, transport itself forms a market in which various players transact, compete and cooperate, but in which they often hold various degrees of market power. As in many other industries, regulations exist to secure ‘fair’ competition by: preventing monopoly power and cartel agreements, removing barriers to entry, enforcing property rights and banning state support. Fifth, transport may support other economic activities and merchandize trade, but at the same time produce negative social costs/externalities in terms of congestion, pollution and crime. Regulation is set in place to manage these externalities and collective action problems by imposing penalties or by imposing pricing mechanisms to internalize these costs.

However, Baum (1993) concludes that analysis of these market characteristics leads to the finding that the thesis of ‘market failure’ in the transport market is not convincing. The execution of different regulation practices is associated with different problems and failures and results in possible weaknesses in competition, but these practices can be taken into account in supporting policy measures. Externalities could be solved within a market economy framework by internalization of external costs, for example.

Nevertheless, despite the fact that it is in theory possible to internalize most of the particularities related to the transport sector in the market mechanism, in reality governments choose to override the decisions made in free markets. Politicians have a strong preference for regulation related to the general political process. Politics is very much associated with short-term issues, beliefs...
and popular opinion. This can be seen in opposition to the dominant neo-
liberal paradigm related to the credit crisis and the belief that markets can be
left to police themselves. The global credit crisis of 2007–10 resulted in the
trend toward tighter regulation in financial markets, with a spin-off to other
industries, like the transport industry. Also with respect to the privatization
of transport infrastructures, such as airports or seaports, politicians have had
second thoughts regarding the advantages of privatization. This move back
towards more regulation is an expression of a swing of the pendulum not only
driven by politicians, but also by a sense of urgency related to climate issues,
especially relevant to the transport industry.

In general, there are four main reasons why governments use regulation to
intervene in markets for transportation. The first motive to regulate the trans-
port sector is related to the functioning of markets. Regulatory measures are
taken to reduce excessive market power or market failures. In particular, this
is true for the existence of natural monopolies, especially when these monop-
olies involve goods that have a low price elasticity of demand. Traditionally
this led to state or local authority ownership. Examples are the ownership of
roads, air traffic control, lighthouses, airports, seaports, and subway systems
in the United States, and extend to railways in Europe. This has seldom proved
effective (Button, 2006). Governments regulate natural monopolies because a
natural monopolist enjoys a large cost advantage over its competitors, result-
ing in high prices for consumers, monopoly profits and major economic ineffi-
ciences.

The second important motive for intervention in transport markets by
governments is related to their aim to protect the environment by overcoming
the production of negative externalities by transport operations. Transport
operations have become increasingly associated with impacts on the environ-
ment. Transportation results in a number of environmental impacts, such as on
the global climate, air, water and soil quality, noise related to transport opera-
tions and on biodiversity. Transportation is responsible for 20–25% of all the
energy being consumed globally. Road transport alone is responsible for 85%
of total energy used by the transport sector in developed countries, while
maritime transport uses some 3–5% and air transport uses about 5% (Rodrigue
et al., 2006). This energy use by transport operations results in a contribution
of 15–20% of greenhouse gases, 25% of acid emissions (like acid rain) and
30% of fine particles (PM 10) (CBS, 2010). These percentages are linked to
such factors as: the structure of the economy of a country, the modal split, the
energy mix, general climatic conditions and the level of car ownership.

1 See for example the law on regulatory reform of financial markets signed by
the Obama administration on July 21st, 2010.
However, these percentages are fairly consistent among different developed countries (Rodrigue et al., 2006). Regulation has been introduced to reduce these external effects, for instance by banning polluting trucks (trucks of Euro 1 or 2 fuel standards) from city centres, by introducing legislation related to the use of clean engines and (bio)fuels and by a modal shift policy in which public investment in infrastructures is directed to clean transport modes.

Social goals are a third important motive for regulation. Social goals are mainly concerned with the health and safety of workers in the road transport industry, as well as indirectly that of consumers. In road transport, for example, these goals are directed towards specific rest periods for drivers; minimum daily and weekly rest periods. In addition to driving times, regulation has been put forward concerning the organization of working time of persons performing mobile transport activities (TNO, 2006). Next, admission to the occupation has been strictly regulated in most countries. In order to operate as a professional road haulier in Europe, for example, three conditions must be fulfilled: a good reputation, professional competence and adequate financial standing (Blauwens et al., 2002).

Finally, there is a wide range of ad hoc policy goals related to intervention in transport markets. The experiences relating to the eruption of the Eyjafjallajökull volcano in Iceland and the ash-cloud that stopped all Northern European air traffic for nearly a week in the Spring of 2010 will undoubtedly have implications for regulation measures in the future and the determination of (less strict) safety levels for flying through clouds of volcano ash. Also the ‘Great Recession’ of 2009 following the credit crisis starting in 2007 evoked a serious call for intervention in transport markets to overcome the expected distortion of those parts of the transport industries that were severely hit, for instance inland shipping. The European Community has regulation measures to overcome fundamental market distortions, like minimum prices or market entry quotas. The initiatives by inland shipping organizations for a capacity reduction by means of the introduction of a ‘crisis cartel’ resulted in serious resistance by several shippers’ organizations and by regulatory institutions, because of the fear of diminished competition and rising transport tariffs.

In addition, ad hoc policy is related to a number of other themes. Because of the impact of transport infrastructure on economic development (Kessides, 1996), transport policy is related to regional economic policy goals as well as growth policy goals. Transport policy is also used to revitalize declining rural regions by raising living conditions by means of supplying sufficient levels of public transport, since transport is an important goal in strengthening regional integration. For example, in integrating the poorer regions of the EU into the core countries, Germany, France, the UK, the concept of Trans-European Networks (TENs) was initiated in 1996. The idea of TENs emerged in conjunction with the proposed Single Market. The construction of the TENs is
an important element in economic growth and the creation of employment in the EU. However, like most policy goals, market integration is a goal that differs from the correction of market failures, and may both improve and undermine efficiency (e.g. through effects on competition).

Moreover, broad social policy goals are a target for intervention and regulation, for instance, the equalization of the mobility opportunities for groups at different social levels (OECD/ITF, 2008). Finally, since 11 September 2001 (9/11) a large body of regulation has been related to increased safety and security practices in transport. These measures often have a large ad hoc character and react to specific incidents such as the taking of liquids on board airplanes, with the risks of being able to produce bombs. Ad hoc policy measures also relate to strategic motives with respect to ‘critical infrastructures’ and the foreign ownership of seaport or airport terminals. This prevented, for example, the acquisition of P&O operated terminals in the USA by Dubai-based global terminal operator DP World, because of the risk of negative effects on port security.

3. WHY DEREGULATE THE TRANSPORT SECTOR?

In the late 1970s a deregulation breakthrough appeared in transport markets related to a broader shift in policy orientation towards deregulation, privatization and liberalization, as well as the emergence of ‘supply-side economics’ (Button, 2006). This deregulation breakthrough has been linked to a political shift from predominantly social-democratic politics to neo-liberal politics. In the UK and the USA, the state was at the forefront of this transition, the process having been started by the Thatcher government, continued by New Labour in the 1990s and the Reagan administration in the USA. The deregulation of the USA air transport market in 1978 was the first example in a strong wave of liberalizations (Button, 2009), followed by the US Shipping Act of 1984 and the Motor Carrier Act of 1985 (Hayuth, 1987). In the UK there has also been a wave of privatizations in transport infrastructures. The Thatcher administration developed a policy of selling off nationalized industries into private ownership, eventually leading to the privatization of British Rail in 1993, which resulted in the national rail service being broken up into over 100 separate companies. Furthermore, the emergence of a single European market in 1993 gave particular impetus to deregulation, especially the deregulation of frontier-crossing traffic. Since then, many national deregulation measures have been introduced in the countries of the European Union.

There are a number of obvious motives for the deregulation of transport markets. The first motive is a general feeling of mistrust of ‘Big Government’ and a belief in the working of the free market, the shift presented above.
Regulation instruments have prevented the functioning of free markets and healthy competition.

The second motive is related to doubts about the effects of regulation and the ability to correct market failures through the implementation of regulation. In addition, despite regulation, negative externalities related to transport industries have increased during the last few decades and modal shift policies have failed to show results. The goal of modal shift policies has been to shift transport from road infrastructure, which has a poor track record on environmental performance, to more environmentally friendly rail, inland shipping and short sea operations. However, modal shifts practices have been showing an increase of road transport in the modal split in the last few decades, mainly because of the introduction of logistics practices demanding agility, flexibility and speed of operations (Muilerman, 2001, Runhaar, 2002). In addition, the self-interest of regulating institutions is an important motive, which does not result in benefits to society (Stigler, 1971).

The third motive is a lack of competition in regulated transport markets, which has resulted in: high prices, high cost levels, reduced productivity, reduced innovation levels, reduced variety of services and a substantial need for subsidies. Deregulation would reverse these negative effects. Finally, the benefits of deregulation allow countries, regions and industries to produce more efficiently. Button and Drexler (2005) undertook research on the impact of further liberalization of air markers by Open Skies agreements in the 1990s (see Section 4.4) on variations in high-tech employment between European regions. High-tech manufacturing is a highly mobile industry and responds relatively rapidly to significant improvements in production environments. Button and Drexler (2005) compared 95 European regions in which a number of regions had Open Skies agreements with the USA and other regions operating under other agreements. Their research indicated that the move towards an Open Skies agreement resulted on average in some 30,000 jobs for the surrounding region. This is a powerful economic impact of deregulation in the transport industry and is an indication of the fact that the deregulation of transport markets often has implications for markets beyond the transport industry. But also within this industry deregulation may have strong effects, resulting in more attractive service levels and innovation as the illustration in the next paragraph illustrates.

Button (2009) presents an illustrative description of the economics of deregulation and the effects of deregulation on tariff levels, variety of services and innovation (Figure 11.1). He uses the liberalization of the transatlantic air market by means of ‘Open Skies’ policies starting from 1992, but the concepts of this illustration may be applied to deregulation/liberalization practices in other markets. The initial demand curve for transatlantic services before deregulation is $D_1$ in Figure 11.1. The average cost curve per passenger is $C_1$. 
The level of fares and capacity available before deregulation and liberalization took place were limited and were not determined by the working of the market. In Figure 11.1 this is illustrated by Q₁, a capacity constraint. Button assumes in his representation that the terms reached under a bilateral agreement regarding fares allowed for cost recovery, implying fare levels of F₁. In a deregulation policy, an open market arrangement would remove the capacity constraint and reduce fares to F*₁. This gives an idea of the potential economic effects of deregulation by removing market entry controls. Open Skies policies, including the permitting of strategic alliances, not only remove the capacity constraint, but also affect both the demand and supply curves for transatlantic air travel. These policies enable airlines to restructure their businesses as well as their networks, and to introduce practices in which transatlantic routes may be fed more effectively and coordination of activities may improve, resulting in reduced costs: curve C₂ in Figure 11.1. This form of deregulation/liberalization also affects the demand side. By allowing more effective feed to the long-haul stage of intercontinental services through the concentration of traffic at international airports, hub-and-spoke operations become economically feasible, increasing the market size and, therefore, demand levels. This results in a new demand curve, D₂ in Figure 11.1. The outcome of the lowering of costs and the adapted demand is an increase in the number of passengers to Q₂ and a reduction in fares to F₂.² The new market structure is primarily influenced by market forces instead of regulative measures like capacity constraints. It also enables innovations like the introduction of hub-and-spoke networks.³ Market forces, like competition and mergers policies, can effectively fulfill the role of regulation (Button, 2009).

However, deregulation does not only have advantages. Because of deregulation, transport firms have gone bankrupt, communities have lost services and some classes of passengers and shippers are now paying higher fares. In particular, negative effects on safety levels in transport are related to deregulation and privatization. Responsibility for the Clapham Junction rail crash

² Button (2009) states that fares may also rise as a result of the freer market conditions because the new demand curve reflects a better quality of service: more convenient flights, transferability of frequent flier miles and seamless ticketing for example, and that, on average, potential travellers are willing to pay more for this improved product.

³ A hub-and-spoke network is a hierarchical, interconnected transport network with a radial structure, in which large flows of transport movements take place between the hubs, the large intercontinental transport nodes in the network (driving on economies of scale in transport operations), connecting the spokes, the smaller regional nodes.
in London, 12 December 1988, which led to 35 deaths, is related to the drive for profit by the privatized rail companies, which prevented the introduction of accurate safety systems and postponed investment in new rolling stock with sufficient crashworthiness (Gourvish and Anson, 2002). Besides safety levels, there are other risks to deregulation, such as: the risk that expected price reductions will increase traffic volumes; the emergence of cut-throat competition; severe competition levels between transport firms resulting in extremely low tariffs as well as low salary/wage levels and high levels of bankruptcy; effects on economically weak areas poorly served by transport leading to them becoming further disadvantaged; a loss of efficiency and negative effects on the environment. However, Button concludes (2009), ‘No positive change occurs without disruption, … , but these negative features have been far outweighed by the positive effects’.

Source: Button (2009).

Figure 11.1 The economics of deregulation, the simple economics of Open Skies policies in the transatlantic air market as an illustration of the benefits of deregulation of transport markets
4. REGULATION OF THE TRANSPORT SECTOR AT THE INTERNATIONAL LEVEL

Transport by definition is a derived demand resulting from a spatial mismatch between supply and demand. As such, transport links distant production centres with consumer markets. In the new spatial division of labour (Fröbel et al., 1980) that has emerged since the early 1980s, production and consumption have literally become oceans apart with various commodities being manufactured in countries with low production costs. The move of traditional manufacturing and labour-intensive industries from the United States and Western Europe to, in particular, China and Southeast Asia has in fact been facilitated by the removal of trade barriers (Ng, 2007) and by the enormous reduction in transport costs (Levinson, 2006). Costs reductions in transport by sea were made possible by low fuel prices and by the introduction of the standardized maritime container. The latter made transshipment less labour intensive, and more efficient and reliable. The container also allowed steamship companies to exploit economies of scale. Nowadays, more than 90% of the world’s merchandized trade is carried by ship. But these cost reductions were also related to deregulations of the markets for intercontinental transport, with respect to both sea and air transport.

In this chapter we will give a brief overview of the most relevant themes for regulation and deregulation at the international level. We will discuss regulation with respect to pollution and the environment, as well as security regulation introduced after the 9/11 terrorist attacks. We will furthermore present the evolution of the rules governing shipping contracts, culminating in the ‘Rotterdam Rules’ and deregulation in the air markets: the Open Skies agreements.

4.1 Pollution Regulation: The Rise of Environmentalism

The increasingly busy shipping routes across the world’s oceans have negatively impacted the natural environment. Oil spills from tankers have especially caused enormous damage. Moreover, steamship companies used to dump their sewage and garbage wastes in the oceans due to the lack of internationally binding regulations. Within territorial waters, steamship companies are subjected to national regulation regarding waste disposal and face liability in case of oil spills. However, the world’s oceans do not fall within any nation-state jurisdiction and the lack of regulations regarding pollution resembles much of what is referred to as ‘the tragedy of the commons’ (Hardin, 1968). Increased environmental awareness beginning in the late 1960s, culminating in the Club of Rome’s 1972 report, The Limits to Growth (Meadows et al., 1972), put this collective action problem on the international agenda.
In 1973, the International Maritime Organization (IMO, a legal body of the United Nations) enacted the International Convention for the Prevention of Pollution by Ships, simply known as MARPOL. The origins of MARPOL are, however, to be found two decades earlier. In 1954, the United Kingdom organized a conference on oil pollution which resulted in the adoption of the International Convention for the Prevention of Pollution of the Sea by Oil (OILPOL). Following entry into force of the IMO Convention in 1958, the depository and Secretariat functions in relation to the Convention were transferred from the United Kingdom government to IMO. The OILPOL Convention basically attempted to tackle oil pollution in two ways:

- It established ‘prohibited zones’ extending at least 50 miles from the nearest land in which the discharge of oil or of mixtures containing more than 100 parts per million was forbidden; and
- It required Contracting Parties to take all appropriate steps to promote the provision of facilities for the reception of oily waters and residues.

The OILPOL was amended in 1962, at which time the prohibited zones were extended, but in general, oil pollution remained of minor concern to the IMO. However, as maritime transport of oil intensified in the next few years, so did awareness that more action was required. Further action became inevitable in 1967 when the Torrey Canyon tanker sunk in the English Channel, spilling 120,000 tonnes of crude oil into the sea. After this incident, the IMO decided to convene an international conference to set up a new international convention. In the meantime, new amendments to OILPOL were adopted, including special reference to Australia’s Great Barrier Reef (in early 2010 again under threat due to a stranded Chinese vessel nearby) and a rule limiting the size of oil tankers. After an international conference in 1972, the IMO adopted the MARPOL the year after. MARPOL in turn was amended in 1978. MARPOL 73/78 consists of five annexes.


Annex I largely incorporates the agreements as adopted in the amended Oil Pollution Convention of 1954.

2. Annex II: control of pollution by noxious liquid substances (came into force 6 April 1987)

Annex II details the discharge criteria and measures for the control of pollution by noxious liquid substances carried in bulk. Some 250 substances are included in the list appended to the Convention. The discharge of their
residues is allowed only at reception facilities until certain concentrations and conditions (which vary with the category of substances) are complied with.

No discharge of residues containing noxious substances is permitted within 12 miles of the nearest land. More stringent restrictions apply to the Baltic and Black Sea areas.


In July 2009, the IMO agreed to disseminate a package of interim and voluntary technical and operational measures to reduce greenhouse gas emissions from international shipping. They also agreed on a work plan for further consideration of market-based instruments to provide incentives to the shipping industry. The measures include:

- interim guidelines on the method of calculation, and voluntary verification, of the Energy Efficiency Design Index for new ships, which is intended to stimulate innovation and technical development of all the elements influencing the energy efficiency of a ship from its design phase; and
- guidance on the development of a Ship Energy Efficiency Management Plan, for new and existing ships, which incorporates best practices for the fuel efficient operation of ships; as well as guidelines for voluntary use of the Ship Energy Efficiency Operational Indicator for new and existing ships, which enables operators to measure the fuel efficiency of a ship.

The measures should be implemented by making use of market-based instruments and aims include climate change mitigation and adaptation activities; research and development; offsetting of emissions and serving as an incentive for the industry to invest in more fuel-efficient technologies.

4.2 Security Regulation after ‘9-11’: Americans Take the Lead

The security of seaports and logistical chains has been a major political concern since the terrorist attacks of 11 September 2001 on the World Trade
Center in New York and the Pentagon in Washington. Though the terrorists made use of airplanes to launch their attacks, policy-makers and specialists quickly became aware of the vulnerabilities of the maritime sector to acts of terrorism. As early as 2000, the American battleship USS Cole was attacked by terrorists in small vessels in the port of Aden (Yemen), leaving 17 American marines dead. Two years later the oil-tanker Limburg was attacked, again off the coast of Yemen, destroying 90,000 barrels of crude oil. During a suicide attack in March 2004 in the Israeli port of Ashdod, ten persons were killed, when terrorists entered the port through a container.

Seaports are potential targets for terrorists, since they are located near large urban centres and major industrial complexes such as petro-chemical refineries. A successful attack launched in a port with a Weapon of Mass Destruction (WMD) could lead to numerous victims. Second, ports and containerized traffic are crucial for the world economy, and a successful attack would have enormous economic costs, e.g. increased fuel prices and insurance rates or delays in supplies. Containers can, furthermore, be used to smuggle terrorists and weapons into the country, or be used as a weapon in itself: fewer than 10 per cent of containers are actually opened and carefully checked by the appropriate authorities. According to the American think-tank the Brookings Institution (2002), a successful terrorist attack with a WMD hidden in a container would lead to as many as 1 million casualties and would have an economic cost of nearly a billion dollars per day. This is the worst-case scenario, but the threat is serious enough for the international community led by the United States to impose new forms of regulation to improve the security of ports and logistical chains.

The American Department of Homeland Security (formed after 9-11 and including the US Coast Guard and the Customs Department) has taken the lead in imposing new international regulation in the form of the Container Security Initiative (CSI) and the Customs Trade Partnership Against Terrorism (C-TPAT). The first regulation encompasses a range of measures, most notably ‘pre-screening’ of cargo before it reaches US seaports. In order to do this, the Department of Homeland Security approached a number of foreign ports regarding their participation, with the implication that they would have to allow American inspectors into their jurisdictions. Participating ports are, furthermore, obliged to map and submit their existing security situation to US Customs. Not participating will have serious consequences, since the port would then not be allowed to handle ships and cargo bound for the United States. This requirement is why the European Commission initially expressed its concerns about the bilateral agreements between the United States and some European seaports. The issue was resolved in April 2004 when the EU and the American government agreed on the implementation and coordination of port security instruments and initiatives such as CSI. To date,
around 60 major container ports worldwide are participating in CSI, including major ports such as Rotterdam, Antwerp, Dubai, Singapore and Hong Kong.

The Customs Trade-Partnership Against Terrorism is another anti-terrorist initiative taken by the American Department of Homeland Security. Whereas CSI is directed at foreign ports, C-TPAT is aimed at the security of the entire global supply chain. It involves voluntary cooperation between all kinds of private parties involved in the international transport of goods (e.g. shipping lines, importers and exporters, terminal operators, truck companies, shippers and their agents) and US Customs through the exchange of information. Firms participating in C-TPAT need to submit the physical (e.g. gated storage) and procedural (e.g. the registration of personnel and cargo owners) security measures which they have implemented to the US Bureau of Customs and Border Protection, which can grant certificates to the firms. The certificates provide firms with some incentives, such as less inspection at the American border. In 2005, some 7400 companies were associated with C-TPAT.

IMO has also taken action to improve supply chain security in addition to the rather one-sided initiatives taken by the American government. The International Ship and Port Facilities Security Code (ISPS) was created in December 2002 as an additional regulation (XI-2) under the 1980 International Convention for the Safety of the Seas (SOLAS). The ISPS was adopted by the Member States of IMO in 2004. The code represents a standard set of security measures with which individual ports and shipping lines need to comply if they want to be internationally recognized as responsible agents. The ISPS Code was adopted by the European Union under EU-Ordinance 725/2004, effectively enforcing its implementation among its Member States. This was followed by actions of the World Customs Organization, an intergovernmental organization of customs departments from 166 countries. In June 2005, it launched the ‘Framework of Standards to Secure and Facilitate Global Trade’, a list of 17 actions that national customs departments can minimally do to secure global supply chains and ports, while taking into account the interests of international trade. The latter has no legally binding forms of regulation, but can be considered as a form of self-regulation by different national customs departments.

4.3 Regulation of International Shipping Contracts: From The Hague to Rotterdam

A common international regime regarding the rules of contract between cargo owners and transporters is of significant importance in facilitating international trade. Historically, the majority of international merchandise trade is transported by ship with considerable risks of damage to cargo or delay in delivery. A commonly accepted international system of rules governing the
contractual relationships (known as ‘bill of lading’) between carriers and cargo owners (shippers) reduces uncertainty and imposes institutional uniformity in the governance of relations: all to the benefit of international merchandise trade. For a long time, the rules governing contracts for transport by sea were based upon English common law, ever since ‘Britannia rule[d] the waves’ (Jacobs et al., 2010). After World War I, 27 leading seafaring nations, mainly from Europe and the Americas, agreed to set up uniform rules of law relating to ‘bills of lading’ to be drafted in Brussels. These uniform rules of law came to be known as the ‘Hague Rules’ and have been for over 80 years the most widely used international liability regime with regard to the international carriage of merchandise by the sea.

The Hague Rules, officially known as the International Convention for the Unification of Certain Rules of Law relating to Bills of Lading, specifies in 16 articles the liability relationships between the carriers (or charterers) of merchandise trade and the cargo owners. The Hague Rules were drafted in 1924 and came into force in 1931. Some important countries such as the United States adopted the basic principles of the Hague Rules, but enacted them within their own national legal regime. Thus, in the United States the leading governing regime is the 1936 Carriage of Goods by Sea Act (COGSA), which differs in some detailed respects from the Hague Rules (Sturley, 2009). The Hague Rules were amended by the Visby Amendments in 1968, after which they became known as the Hague-Visby Rules. The basic premise of the Hague-Visby Rules is that the carriers have far greater bargaining power than the shippers. The Rules are therefore designed to protect the interests of the shippers by imposing a minimum level of obligations. Under Article III of the Hague-Visby Rules, the carriers are obliged to ‘properly and carefully load, handle, stow, carry, keep, care for, and discharge the goods carried’ and to ‘exercise due diligence to ... make the ship seaworthy’ and to ‘... properly man, equip and supply the ship’. However, Article IV allows the carrier no less than 17 exemptions from liability on a cargo claim. These exemptions include destruction or damage to the cargo caused by: fire, perils of the sea, Act of God, Act of War and Act of Public Enemies. The shipper, on the other hand, has the following five obligations under Article III: (1) to pay freight; (2) to pack the goods sufficiently for the journey; (3) to describe the goods honestly and accurately; (4) not to ship dangerous cargoes; and (5) to have the goods ready for shipment as agreed. A controversial exemption of liability for carriers that is included is the ‘[A]ct, neglect, or default of the master, mariner, pilot, or the servants of the carrier in the navigation or in the management of the ship’. This exemption was generally considered to be unfair to the shipper. The controversial article was removed in the 2008 Rotterdam Rules (currently under ratification by individual states) as well as in the Hamburg Rules (which came into force in 1992), but signifies how regulations
resemble historical contexts. Over time the balance of power between contractual parties (whether States or private parties) will inevitably change. In international shipping, the balance of power has shifted slightly but surely from the carriers to the shippers (Levinson, 2006), and from former colonial masters to developing seafaring countries.

The Hague (-Visby) Rules were drafted and adopted in the 1920s, in a world still dominated by colonial empires and wherein international fleets still consisted of sailing rather than steamship technology. After World War II, international conventions started to be addressed at the level of the United Nations, where developing nations gained suffrage after liberating themselves from their colonial masters. On 31 March 1978, the Hamburg Rules were drafted within the framework of The United Nations Committee on International Trade Law (UNCITRAL) in an attempt by developing countries to level the playing field. The Hamburg Rules came into force on 1 November 1992 and have to date 34 contracting states, mainly developing countries. A major departure from the Hague Rules is that the Hamburg Rules apply to both inbound and outbound voyages. The Hague Rules only apply to outbound shipments from a port in a contracting state. The Hamburg Rules also doubled the time-for-suit period to two years compared with the Hague-Visby Rules, which provides cargo owners with more time. Thus, there are three competing international regimes: the Hague Rules, the Hague-Visby Rules and the Hamburg Rules. These regimes reflect to a certain extent the competition between carrier interests and cargo interests. These in turn, resemble the conflicting interests of the leading maritime nations on the one hand, and of the exporting nations on the other.

However, the existing system(s) of rules governing contracts came increasingly under pressure internationally during the last decade of the twentieth century. The world of shipping has changed considerably since the implementation of the Hague and the Hamburg Rules. The standardized container and Information Communication Technology (ICT) were introduced into the transport and shipping sector, changing the international state of play. The standardized container had been introduced in 1958 by an American trucking company led by Malcolm McLean, but it took two decades for the industry to accept standardization. After standardization, container technology, however, quickly dispersed throughout the shipping industry, allowing improvements in both operational efficiency and securities against damage and theft (Levinson, 2006). During the late 1980s, ICT made its way into industrial organization, facilitating business-to-business e-commerce between producers and suppliers and invoking the business model of just-in-time logistics. This business model allowed cargo owners to reduce their inventory costs and to flexibly integrate their supply chains, while imposing new demands on their transport suppliers in the form of door-to-door services (Notteboom and Winkelmans, 2001).
Containerization and global supply chain integration has outgrown the Hague-Visby and Hamburg Rules fundamentally.

The thorough renewal of the existing global conventions regarding shipping contracts became a reality during the first decade of the twenty-first century. In 2008, the UN General Assembly adopted the Convention of Contracts for the International Carrying of Goods Wholly or Partly by Sea and authorized a signing ceremony for the Convention, which was held in Rotterdam in September 2009. Hence, the Convention is known as the Rotterdam Rules. The Convention extends and modernizes the existing international rules relating to contracts of maritime carriage of goods. The Rotterdam Rules consist of 96 articles which are, compared with the previous conventions, essentially modest reforms in legal doctrine (Sturley, 2009). But there are some significant changes as well, most notably on the issue of the carrier’s ‘period of responsibility’. In order to cope with the extended supply chain systems of modern day transport, which in most cases also includes multi-modal shipments, the Convention adopts a ‘door-to-door’ approach. Under this regime, the carrier’s responsibility ‘begins when the carrier or a performing party receives the goods for carriage and ends when the goods are delivered’ (Article 12). In practice this period of responsibility runs from the receipt of goods/cargo at one inland location in the country of origin until the delivery of the goods at an inland location in the destination country. This article modernizes the ‘tackle-to-tackle’ (period of time between the loading of goods and their discharge) approach in the Hague Rules and the ‘port-to-port’ approach in the Hamburg Rules. In addition to this innovation, the Rotterdam Rules also include a specific chapter (Articles 8–10) on electronic transport records. In this way, the Rotterdam Rules finally bring the international convention with regard to shipping contracts into the digital age.

The Convention will replace the Hague Rules, the Hague-Visby Rules and the Hamburg Rules in the contracting states that ratify the Convention. It aims to achieve uniformity of law in the field of maritime carriage in a world dominated by containerization and supply chain integration. The Rotterdam Rules will enter into force when 20 countries have ratified it. Since the world economy and world politics have become more and more a dance between the United States and China, much of the success of the Rotterdam Rules depends on ratification by these two countries.

4.4 Regulation of the Heavens of the Sky: US-EU Open Skies Agreement

It is to be expected that there will be gradual progress towards a liberalized and free global air transport market, in which carriers offer transport services in a fully competitive market. There is a move from a number of highly restrictive
Air service agreements to a relatively liberal regime under which trade in air transportation services is relatively free in large parts of the world (Button, 2009). Liberalization will have the effect of increasing choice for passengers and shippers to reach certain destinations. Liberalization will have an effect on tariffs (see Figure 11.1) but this effect may not only be downwards because of the expected increased consolidation on the supply side of the market (Dutch Ministry of Transport, 2009). ‘Air transportation is a matter of public concern, especially regarding safety matters, but the general evidence is that market liberalization has produced net benefits’ (Button and Drexler, 2005). Bilateral regulation between countries, or between trading blocs like the EU and individual countries, is still the most dominant institutional arrangement enabling air transport between two countries. These bilateral agreements regulate issues like the operating rights between two countries, the specific airports to be used, the number of flights, the fares that can be charged and the volume of cargo capacity authorized. The basic principle in bilateral agreements is reciprocity, meaning the authorization of an airline of a third country to enter the national airspace in exchange for access of the own home carrier(s) to the airspace of the third country in question. By means of reciprocity, two countries permit landing rights and other duties, but at the same time, allow home carriers to become competitors on certain routes (van Eekhout, 2005).

The development of the current bilateral and Open Skies agreements is the result of a long and tiring road and a number of important conventions in which far-reaching agreements and multilateral agreements have been made. These agreements acted as the starting point for bilateral and open skies agreements. After the Conventions of Paris (1919), Madrid (1926) and Havana (1928), the Chicago Convention (1944) is the most prominent milestone in modern air transport regulation. In the Chicago Convention, the concept of air service was introduced: ‘Air service means any scheduled air service performed by aircraft for the public transport of passengers, mail or cargo’. The Convention established national sovereignty over airspace and an institutional framework within which nations could trade these rights (Button and Drexler, 2005). The Chicago Convention is famous for the ‘Five Freedoms of Air Service’ (van Eekhout, 2005).

- The first freedom arranges the access of the airspace of a country: the right of transit without landing.
- The second freedom relates to the right of non-traffic stop, enabling carriers an intermediate landing, for the intake of fuel for example.
- The third freedom gives a carrier of a country the right to set down traffic in another country.
- The fourth freedom gives a carrier of a country the right to take traffic from another country to its own country.
• The fifth freedom gives a carrier from a certain country the right to load and unload revenue traffic in a country with which a treaty has been signed and convey it to a third country: the right to carry traffic between foreign territories. In addition to the five freedoms, since 1978 three new freedoms have been introduced between the US and EU states anticipating new demands from the industry (Button, 2009).

• The sixth freedom gives a carrier the right to carry traffic from a foreign airport via an airport in its own country to an airport in a third country, enabling carriers to design ‘hub-and-spoke operations’.

• The seventh freedom relates to enabling services between two countries without using an airport in the home country: an Asian carrier carries traffic between Europe and the US for example.

• The eighth freedom arranges ‘cabotage’, the right of a carrier of a foreign state to take passengers, mail or cargo in a specific country to another location within the territory of this specific country, an Asian carrier delivering services within the USA for example.

After the Chicago Convention, other milestones in air transport markets were the US Air Cargo Deregulation Act (1977), and the US Airline Deregulation Act (1978). Open Skies was a logical extension of these regulatory reforms in the US. At first, the EU hesitated to respond because of the strong international position of US carriers and because of the focus of EU policy-making on internal matters at the time (Button and Drexler, 2009). The continued growth in air traffic, demand for ‘hub-and-spoke’ operations to be accommodated (see Section 3 of this chapter) and the determination of the Dutch government to realize ‘as liberal as possible’ bilateral air service agreements between countries outside the EU (de Wit and van Gent, 1998) resulted in the first Open Skies treaty between the Netherlands and the US in 1992. Most European countries would follow, although a number of countries are exceptions, such as the UK. Open Skies bilateral agreements resulted in: unlimited market access, free pricing practices, unlimited fifth freedom rights, code-sharing permitted and break-of-gauge rights4 granted (Button, 2009). Although the Open Skies agreements are a major step forward, markets between EU countries and the US are not entirely open. Cabotage, or eighth freedom rights, is not arranged in Open Skies agreements. In addition, foreign ownership of carriers operating in the US and the EU market is limited and there exist subtle entry barriers in the EU market, such as ‘nationality clauses’.

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4 ‘This is the right to change from a larger to a smaller aircraft in another country’s territory on a through service that is going beyond the other country – usually, but not necessarily – with fifth freedom rights’ (Doganis, 1985, p. 59).
Since 30 March 2008 a new transatlantic agreement has been arranged, extending Open Skies principles to 26 EU countries. The EU and the US have agreed to begin second-stage negotiations on further liberalization resulting in open competition between the EU and US and have detailed provisions on issues such as cooperative marketing arrangements for code sharing, franchising and leasing, ownership of airlines, investment policies and enabling seventh freedom practices (Dutch Ministry of Transport, 2009).

5. REGULATION AT THE LEVEL OF THE EUROPEAN UNION

Transport has been one of the European Union’s most fundamental common policies ever since the Treaty of Rome (1958), which established the European Economic Community (EEC). Transport became an official European policy competence regulated under Articles 70–80 of the Treaty and governed by the Directorate-General of Transport. The prime concern for European transport policy was the removal of internal barriers to trade and ensuring the freedom of movement of goods, capital and people within the EEC. European transport policy as such should be understood as one of the key facilitators of the process of European integration aimed at social and economic cohesion among the Member States. This goal of market integration was clearly more powerful as a policy goal compared with the correction of market failures.

But while the Treaty of Rome established a formal policy competence, it remained largely ineffective, since the Council of Ministers (representing the Member States) failed to implement proposals drafted by the European Commission. A crucial turning point in the common European transport policy was the Treaty of Maastricht in 1992. Not only did the Treaty of Maastricht formalize the establishment of the Single Market, it also increased the political, institutional and financial scope of a common transport policy. Thus, under the Treaty of Maastricht, decisions regarding common transport policy require a majority of votes rather than unanimity, as required under the Treaty of Rome. The Treaty of Maastricht also launched the Trans-European Transport Network program (T-TEN) – an ambitious large-scale investment programme in infrastructure upgrading, aimed to facilitate European integration – as well as a series of White Papers by the European Commission setting out the contours of the common transport policy, including sets of regulations. The central objectives of these European regulations regarding transport can be summarized as: liberalization, harmonization and sustainable development.

Liberalization involved the opening up of national transportation markets to European competition. This was deemed particularly necessary for the rail transportation markets, which were at the time of Maastricht, still dominated
by national monopolies of state-owned rail transportation companies. It also included, at a later stage, for example, the opening up of labour markets in seaport services under the so-called Port Package Deals. The case of the failed implementation of the port package deals will be discussed below in Section 5.1. It highlights the politics behind economic regulation as addressed in the introduction. The liberalization of the European rail markets is another case that will be presented in this context, highlighting current governance problems and market failures. Second, harmonization aims to standardize national regulations on a European scale in order to optimize the integration of transportation markets on the one hand, while promoting a European level playing field on the other. Securing a level playing field, in particular, aims to ban regulatory forms of competition by Member States, while at the same time preventing market monopolies and private pricing cartels in transport services. In this context, the role of the DG-Transport is rather limited as this falls under the competence of DG-Competition. The case of the ban on the Trans-Atlantic Agreement and the Far Eastern Freight Conference will serve as illustrations.

Finally, the sustainable development of the common European transport policy aims at improving the environment and the labour conditions in the transport industry. These include, on the one hand, regulations regarding the safety of transport workers during transport operations, such as driving times, and safety and security related to the transportation of goods, such as hazardous goods or precautionary actions to prevent overloading of trucks. On the other hand, there are regulations in support of the environment, in particular promoting a modal shift and reducing carbon emissions from transportation activities.

We do not intend to give a complete description of EU transport regulation. For this, we refer to EU legal documents or to overviews like that of Blauwens et al. (2002). The following themes are illustrative of EU practice in the field of regulation of the transport industry.

5.1 Liberalization of Transportation Services: The Failure of Port Package Deals

In 2003, and with a revised proposal in 2004, the European Commission tried to establish a common European regulatory framework regarding liberalization and free market access to port services. This framework is formally called the Port Services Directive (PSD) and the revised proposal is called PSD II. In the port industry, it is often called the Port Package.

Compared to other industries, the port industry has lagged behind with respect to liberalization because of the heterogeneity of the industry, a motive often used to resist liberalization or deregulation (Baum, 1993). Another issue is the difficulty of identifying port policy as either an ‘industrial’ or a ‘trans-
The PSD can be seen as the introduction of general practices of liberalization, harmonization, transparency and simplification to a specific industry. The goal of the PSD is to establish free competition within the EU port industry; the focus is on lowering entry barriers and on increasing intra-port competition, which is lacking in quite a number of European ports (de Langen and Pallis, 2006). Within the port industry, there is a strong debate as to whether the dominant arena for competition is at the intra- or inter-port level. This is particularly relevant for the container industry. Competition is usually established on three levels. First, competition between port ranges: North European ports competing with ports in the Mediterranean for cargo destinations in North Italy, for example. Second, competition between individual ports: for example, the port of Antwerp versus the port of Rotterdam, two ports with a large overlap in their hinterland. Third, intra-port competition: competition between different terminals at the same port. Because of liberalization, but also due to new developments such as the arrival of global terminal operators and dedicated terminals, the level of competition is changing and levels of intra-port competition are increasing. Intra-port competition should be further stimulated by means of establishing open access on the basis of transparency, non-discrimination, clear charging policies and (public) service obligations.

The PSD was designed to ensure that there are at least two service providers for port services, such as: technical navigational services required for the arrival and departure of ships in a seaport (pilotage, towage, mooring), cargo handling services and passenger services. The national governments of the EU countries would have the right to grant (local) port authorities the power to authorize port services. The level of investment planned by a service provider would determine the maximum length of each authorization. In addition, two other important elements of the PSD were the liberalization of pilotage and the right of shipping companies to cargo self-handling (Pallis and Tsiotsis, 2007). This self-handling refers to the handling of cargo by crews controlled by shipping companies instead of stevedoring companies.

After rejection of the first proposal by a narrow majority in December 2003, the European Parliament rejected PSD II with an overwhelming majority of 532 out of 677 in 2006. There were three major reasons for this serious ‘policy output failure’. First, there were fundamental objections to the PSD from almost all relevant interest groups, and in particular, from port authorities, port operators and trade unions regarding important elements of the PSD. The main focus of these objections were the self-handling of cargo by shipping companies, such as the mandatory nature of authorizations for port services provision by port authorities, or the level of compensation for existing providers of cargo handling. This last objection was strongly related to the significantly decreased length of the authorization of services in the PSD.
Pallis and Tsiotsis (2007) made clear that these different interest groups successfully formed an informal ‘issue network’ aimed at influencing the policy-making process. This is an exceptional network, in which parties with fundamentally different opinions, like trade unions and port operators, were successfully able to block the PSD II.

A second major problem was the inadequate consultation and communication with trade unions and the industry. It was widely held by the port industry that it would be premature to resubmit the port package to the Council of Ministers and the European Parliament before making sure that adequate consultation with stakeholders had taken place (Pfaraftis, 2006). A draft made by a Conciliation Committee of different stakeholders from the port industry in reaction to the rejection of the first PSD proposal was not taken seriously by the European Commission. This draft was seen as a good starting point for further discussion by a number of interest groups.

Third, the port industry is generally considered to be a competitive, efficient and innovative industry, especially in the ports of North Europe. Introducing policy measures with structural, but unknown implications and possibly with disturbing effects for the wider economy in terms of the strategic functioning of ports, may be a risky undertaking. Because seaports are considered a ‘critical infrastructure’ for trade processes, introducing substantial policy measures may have a negative impact on trade volumes. Especially in economic downturns, economies depend heavily on the smooth functioning of the maritime system, including seaports.

To conclude, the introduction of the port package as part of a larger process of market reform and liberalization had some promising elements, in particular the lowering of entry barriers and the attention given to stimulating intra-port competition. However, the way in which this policy-making process was executed is an example of a worst-case scenario and had the effect of preserving the port industry as an industry with unique characteristics, such as a heterogenic nature, relatively high entry barriers and low levels of intra-port competition.

5.2 Liberalization of Rail Markets: The First Railway Package and Further Steps

Traditionally, EU rail policy goals were related to achieving a common and integrated rail market. In the 1960s and 1970s regulation was aimed at financial compensation for public-service obligations (tariff, exploitation and transport obligations), the normalization of the accounting practices of rail companies and the harmonization of regulation between rail companies and the different EU states (de Wit and van Gent, 1998). Harmonization of regulations in the transport industry served general EU harmonization goals, but
also resulted in operational advantages in the realization of efficient international rail services. In the 1980s, EU policy focused on reducing disturbances in competition, mainly related to unfair competition by other transport modes. These other modes, especially road and inland waterway transport, did not have the high costs of using infrastructure. EU directive 91/440 of 1991 was the first step in the liberalization of European railways. The directive had four objectives (Blauwens et al., 2002). First, Member States must take the necessary steps to ensure the management independence of railway undertakings. Railway companies should have an independent legal status and assets; budgets and accounts were to be separated from those of the state. Furthermore, railway companies should be managed according to general commercial principles. However, in most countries, governments imposed obligations upon the railway companies in order to guarantee the provision of general service obligations such as coverage of railway services in rural regions or a sufficient level of service provisions in terms of reliability or tariff levels. In ‘public service contracts’, the mutual rights and duties of the parties concerned were described.

The second objective dealt with the separation between the management of the rail infrastructure and the operation of rail services. An important concept in the separation was a fee for the use of the rail infrastructure. The third objective dealt with achieving an acceptable financial situation for railway companies by means of financial rationalization measures. The fourth objective regulated access by foreign railway companies to the former national railway infrastructure (cabotage, see Section 4.4). Access to national railway infrastructures was further elaborated in two other directives arranging the granting of licences to railway companies and offering a framework for the administration of users’ rights.

Because the share of goods carried by rail in Europe continued to fall, from 21% in 1970 to 12% in 2001 (and even 8.4% in 2008), a railway package was introduced in 2001 consisting of three directives which were elaborated in 2004 (second package) and 2007 (third package). The purpose of these railway packages was to revitalize railway transport by gradually opening it up to competition at the European wide level. The market for rail freight transport has been completely opened since 2007 and for international passenger transport since 2010.

Although the first railway package is regarded as a success by the EU because of the stabilization of the share of rail transport in total transport volumes, the EU produced a proposal to recast the first railway package. This recast was needed for legislative simplification and consolidation and, in addition, it aims to modernize rail legislation and give solutions for three key problem areas in the EU rail market. First, the EU railway market still suffers from a low level of competition due to market access conditions which are too
vague in terms of market entry for foreign competitors and cabotage practices and, therefore, are still biased in favour of the incumbents. Second, there is inadequate regulatory oversight by national authorities, often with limited independence, competences and powers. Incumbent railway companies are still considered of strategic importance in some countries (France), while in other countries mixed forms of private and public companies exist (Germany, in which the state-owned firm Deutsche Bahn also owns a large private forwarding firm, Schenker). And third, levels of public and private investment are low, resulting in declining infrastructure quality.

Apart from simplification, consolidation and clarification, the new proposal will improve the transparency of rail market access conditions and strengthen the power of national rail regulators. Moreover, it will strengthen the financial architecture and encourage investment with its new contractual arrangements, as well as through smarter infrastructure charging rules. Measures proposed include requiring national long-term strategies and multi-annual contractual agreements between the state and infrastructure managers (linking funding to performance, and business plans). The aim is to give market players more predictability on the development of the infrastructure as well as more incentives to improve their performance. In addition, the creation of clearer and smarter infrastructure charging rules has been proposed. Better implementation of the charging principles contained in the existing legislation should lead to lower track access charges for rail transport operators in many Member States. The new charging rules, with the introduction of noise-related modulation as the rail equivalent to external cost charging for road transport and discounts for interoperability, should also stimulate private investment in greener and interoperable technologies (European Commission, 2010).

The subsequent railway packages may be steps in the right direction and are significant progress compared to the European railway practices of the 1990s. However, critics define the recast of 2010 as too little, too late. The regulation is still inadequate in regard to the separation between the management of the rail infrastructure and the operation of rail services. In addition, most EU Member States do not comply with the existing measures in the first railway package, not only resulting in poor quality of rail services provided by the railway companies, but also preventing the development of the railway system as a serious alternative to road transport (Nieuwsblad Transport, 2010).

5.3 Harmonization and Level Playing Field: Breaking Shipping Cartels

As mentioned above, the regulation of the transportation industry within Europe does not fall under DG-Transport (DG-VII) but under DG-Competition (DG-IV). The general regulations regarding competition and
antitrust legislation were laid down in Articles 81–6 of the Treaty of Rome, later to be replaced by Articles 101–06 of the Treaty on the Functioning of the European Union (Lisbon Treaty). There are several EU regulations that deal specifically with different elements of the transport system and allow for exemption from competition rules as laid down in Articles 81–2 (cf. Brooks, 2000, Nesterowicz, 2003, Liu, 2010): Council Regulation 4056/86 for liner conferences (repealed in 2006), Commission Regulation 870/95 for consortia (renewed in 2000 and 2005) and Council Regulation 1017/68 for inland transport.

Oceanic transportation service providers have organized themselves in so-called liner conferences since the late nineteenth century. Through these liner conferences, shipping companies fix prices and regulate capacity. They are typically applied to the main shipping routes between Europe on the one hand, and North America and the Far East, on the other hand. Liner conferences were exempted from European competition legislation due to the fact that they stabilized the industry against cut-throat rate-setting, while securing reliability of services for their clients, the shippers. Another reason for the lack of maritime policy was that, in the early days of the European Economic Community, the focus was on the integration of the continental markets of the original Member States rather than on maritime issues (cf. Liu, 2010). Also Member States were reluctant to give up their independence on the issue of maritime shipping as the size of national fleets was considered a measure of power and prestige (Nesterowicz, 2003). Regulation 1017/68 prohibits restrictive practices in the field of transport by rail, road and inland waterway. Article 3 of Regulation 1017/68 specifies seven exemptions on this prohibition, which are solely on the matter of ‘technical cooperation’ and do not include any other forms of cooperation. Maritime affairs gained more prominence on the European agenda with the accession of seafaring nations like the UK, Ireland and Denmark in the 1970s, and later on with the accession of Greece (the largest seafaring nation in the world) in 1981.

The major trigger for the development of a true European maritime policy was, however, the approval of the United Nations Commission on Trade and Development’s (UNCTAD) Convention on a Code of Conduct for Liner Conferences in April 1974. The most important feature of the UNCTAD code is the cargo sharing rule of 40:40:20, which allows equal shares for shipping lines from countries between which the trade in question is performed. Shipping lines from third party nations are entitled to carry a maximum of 20% of the trade. Many EU Member States became signatories to the UNCTAD code, which was, however, in direct conflict with the principles as laid down in the Treaty of Rome (Articles 81 and 82). The pragmatic solution was the adoption of Council Regulation 957/79, which allowed the Member States to ratify the UNCTAD code in such a way that they were in accordance
with the European competition rules as laid down in the Treaty of Rome. In order to provide legal status for the exemption of conferences from competition rules (Articles 81 and 82) as laid down in the Treaty of Rome, the EEC adopted Council Regulation 4056/86. This is in effect a block exemption, as it is applied to an entire industry.

While Council Regulation 4056/86 provided a block exemption to liner conferences, this exemption did not apply to the carriers’ non-transport activities, nor did it apply to the transport activities in other sectors such as inland transport. The scope of Regulation 4056/86 is limited to ‘international maritime services from or to one or more Community ports’ (Article 1) and as such, includes inland transportation services. Article 2 (technical agreements) and Article 3 (scheduled maritime transport services) of Regulation 4056/86 specify in detail what practices by liner conferences are exempted from application of the competition rules of the Treaty. In addition, Council Regulation 4056/86 also ensures that the privilege of exemption was not to be abused. Article 4 attached the condition for exemption that conferences must not discriminate between ports or shippers on non-justifiable economic grounds. Article 5 of Regulation 4056/86 specifies five obligations attached to the exemption: (1) conferences should consult shippers on matters of common interest, (2) conferences should fulfil reasonable criteria where they provide ‘loyalty agreements’ with their customers, (3) there must be specification of services that are not included in the freight charges issued by conferences, (4) conferences should publish tariffs and (5) there must be notification to the European Commission of awards of arbitration or recommendation.

While liner conferences enjoyed a block exemption on maritime services, their practices increasingly began to include integrated inland multi-modal transportation services as a result of containerization. These practices were consequently challenged in the 1990s by the European Commission in two rulings against two liner conferences: the Transatlantic Agreement (TAA) and the Far Eastern Freight Conference (FEFC). The TAA was formed in the early 1990s. The European Commission ruled in October 1994 that the TAA was, in fact, not a liner conference as defined under Regulation 4056/86 because, first, its pricing practices were not ‘uniform or common’ (the TAA used a two-tier system of membership with corresponding pricing arrangements) and that second, its ‘capacity management program’ was in violation of Article 3(d) of Regulation 4056/86. In addition, the European Commission ruled that price fixing agreements for inland transportation services offered by TAA did not fall under Regulation 4056/86 but were subject to Regulation 1017/68 instead. The EC consequently ruled that the inland pricing arrangements by the TAA were not in accordance with Regulation 1017/68 because they were not a technical form of cooperation and because the TAA did not perform these services themselves. Likewise, the European Commission ruled that price fixing on
inland transportation services offered by the Far Eastern Freight Conference was not in accordance with the scope of application of Regulation 4056/86 (limited to port-to-port maritime services). Again, the European Commission applied the rules in Regulation 1017/68 and consequently, refused block exemption on the grounds that: first, the agreements made by FEFC were commercial agreements and did not involve technical improvements; second, the FEFC did not provide inland transport services themselves but subcontracted these instead; third, other inland transportation companies such as railroad companies and freight forwarders did not enjoy an exemption; and fourth, independent shipping lines also provided these inland transport services but did not enjoy a block exemption. These two rulings largely affected the future of the liner conferences, with the industry moving into other forms of cooperative arrangements, most notably into alliances and consortia.

The block exemption for liner conferences came under critical review in the early 2000s. An important trigger was the OECD Final Report on Competition Policy in Liner Shipping 2002, which concluded that there was limited evidence that the benefits provided by antitrust exemptions for liner conferences outweigh the disadvantages for transport users. The European Commission followed suit with a series of consultation, discussion and white papers on the review of Regulation 4056/86. In 2006, the European Council agreed to repeal Regulation 4056/86 and adopt Regulation 1419/2006, which allowed a transitional period of two years until the final ending of the block exemption in 2008. Regulation 1419/2006 also prevented Member States that were party to the UNCTAD code from fulfilling their obligations, while banning others from ratifying or acceding to this code. This ruling as such made the earlier Regulation 954/79 inapplicable. Under Regulation 1490/2007, it was, therefore, decided to repeal Regulation 954/79, which took effect at the same time as Regulation 1419/2006 in October 2008.

However, the maritime transport industry itself had been progressively moving towards other cooperative agreements during the 1990s, most notably consortia and alliances. The European Commission concluded that consortia as joint-service agreements between shipping lines served to improve productivity and promote competitiveness of shipping services in the European Community. Under Regulation 479/92, the European Commission was empowered to issue a block exemption for consortia. This became formalized in 1995 under Regulation 870/95, which granted a block exemption for consortia for a period of five years. The block exemption for consortia was renewed twice more under Regulation 823/2000 and Regulation 611/2005, extending its period until April 2010.
6. CONCLUSIONS: PATH DEPENDENCY IN THE SPATIAL NESTEDNESS OF REGULATION

Like any other industrial sector, the transport industry has its own unique characteristics and its specific forms of regulation. The most profound characteristics of the transport industry are that it is not confined to a particular location and that it is essentially a derived demand. A typical feature of transport activities is that they connect various locations in order to overcome geographical distances between supply and demand. In a global economy, these geographical distances have expanded dramatically, with transported goods often crossing many jurisdictional boundaries. In addition, transport activities are in need of physical infrastructure, that is, they are highly capital intensive to develop and maintain and often involve public investments by the state. Finally, transport activities generate negative social costs, especially in terms of the environment.

In this contribution we have argued that regulation of the transport sector is not confined to nation-state jurisdictions, but has become more and more internationalized. This is what is referred to as the shift from national embeddedness to a spatial nestedness of regulations (cf. Hollingsworth and Boyer, 1997). While this is particularly the case for the European Union vis-à-vis its Member States, it also holds true on a more global level. Specific regulations with regard to pollution, security and international shipping contracts are articulated at international level. Once adopted and ratified by national or supranational legislative bodies, these regulations become legally binding at lower administrative and territorial scales.

Regulations are furthermore not fixed in time, but constantly evolve as the result of a changing environment. New technologies (e.g. the container or ICT) and new political-economic realities (e.g. the rise of the Pacific Asian economies or neo-liberal discourses) change the conditions under which firms and states operate, outdating existing regulatory arrangements. In most cases, regulations evolve incrementally through piecemeal adaptations to existing frameworks, while in some rare cases they are designed rather radically as a result of external shocks. Such external shocks have included, for example, the oil spill disaster in the English Channel in 1967, which set the stage for the MARPOL International Convention, or the 9/11 terrorist attacks, which prompted new international regulations with regard to security. In most cases, however, regulations evolve rather path dependently, building upon existing frameworks or through jurisprudence, as we have seen with the international conventions on shipping contracts.

A final conclusion is that regulations should be regarded as public creations and subject to political debate and contest. Many of the regulations set up by
the European Union are in fact the outcome of intensive negotiations and strategic bargaining among the Member States and the Commission. Deregulation of rail markets or the antitrust regulation of shipping is driven by a liberal ideology that perceives the competitive market as the most efficient mechanism for the allocation of resources and for the provision of goods. The defeat in the European Parliament of the port package deals, aimed at opening national and local markets in port services, illustrates how rules that govern markets are in the end public creations subject to political contests.

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