82569

Greek Logistics

Unlocking Growth Potential through Regulatory Reform and Complementary Measures

November 2013

THE WORLD BANK

Greek Logistics

Unlocking Growth Potential through Regulatory Reform and Complementary Measures

November 2013

THE WORLD BANK

Contents

List of Figures

List of Boxes

List of Tables

Acknowledgements

This report was prepared by the World Bank's International Trade Unit in the Poverty Reduction and Economic Management Network (PRMTR) and by the World Bank's Transport Unit of the Europe and Central Asia Vice Presidency (ECSTR) upon the request of the Ministry of Development, Competitiveness, Infrastructure, Transport and Networks (currently split into the Ministry of Development and Competitiveness and the Ministry of Infrastructure, Transport and Networks). The report is part of a technical assistance package provided by the World Bank Group to the Government of Greece on enhancing the business environment and trade logistics. The package has been facilitated by the Task Force for Greece (TFGR, an arm of the European Commission), which arranged the financing from the EC technical assistance budget.

The report was prepared by Daria Taglioni (Task Manager and Senior Trade Economist, PRMTR), Baher El-Hifnawi (Co-Task Manager and Lead Transport Economist, ECSTR), Jean-Francois Arvis (Senior Transport Economist, PRMTR) and Lauri Ojala (World Bank Consultant and Professor of Logistics at Turku School of Economics) under the overall guidance of Dirk Reinermann (Program Manager, Europe and Central Asia Vice Presidency), Paloma Anos Casero (Sector Manager, Europe and Central Asia Finance and Private Sector; ECSF1), Mona Haddad (Sector Manager, PRMTR) and Juan Gaviria (Sector Manager, ECSTR). The engagement with Greece was initiated and supported by Philippe Le Houerou (Regional Vice President, World Bank). Substantial contributions to the assignment from Julia Burr Oliver are kindly acknowledged.

The report also benefited from contributions from John Arnold, Jean Pierre-Carre, Frans Copini, Alvaro Gonzalez, Thomas Haven, Yves Lafargue, and Virginia Tanase. Comments received from peer reviewers and other experts including: Marc Juhel, David Rosenblatt, Jordan Schwartz, Aristomene Varoudakis, Christos Kostopoulos and Robin Carruthers, greatly enhanced the quality of the report. The team would also like to acknowledge the support of Nikos Schmidt and Aris Molfetas in liaising with the different stakeholders and coordinating with the client. We are also grateful to Shienny Lie for her assistance on administrative issues.

The proposals contained in the report were discussed at length with the Greek Logistics Permanent Committee, its topical working groups and a wide range of other public and private sector stakeholders in Greece. This includes general managers and logistics executives of major providers and users of transport and logistics services, representatives of category associations as well as civil servants from the Ministry of Development and Competitiveness, the Ministry of Infrastructure, Transport and Networks, the Ministry of Finance, the Ministry of Environment, the Hellenic Statistical Office, the Fire Department, the Taskforce for Greece. The sole responsibility for the proposals rests however with the World Bank. The Greek government, the Logistics Permanent Committee, or the private sector in Greece do not necessarily share the views presented in this report.

Executive Summary

In a detailed review of Greece's logistics environment, this report finds that the Greek government could act in a number of ways to improve the efficiency and viability of its transport and logistics sectors. While there is not one single, major reform that will act as a silver bullet, the report identifies realistic reforms that could significantly improve Greece's business environment. These fall in two basic categories: (1) reforms to transformational sectors, which would be "big wins," but are politically difficult and require significant investment; and (2) smaller "micro-initiatives," that will help to boost the viability of existing businesses and encourage competition and efficiency gains in Greek logistics.

In the first category are improvements to the trucking, railway, and port industries. Ongoing efforts to liberalize the trucking industry could be accelerated by reducing or eliminating unnecessary administrative restrictions. For example, the government could lift limits on the number of trailer units that can be attached to a tractor, or simplify the process of change of property of trucks. Other measures that could be reduced or eliminated are those moderating the pace of reform, including a concession to industry advocates that allows for better conditions in the sale and transfer of trucking licenses issued under the old, closed regime. Rail has the potential to grow into a private sector artery between the privately run Piraeus container port and markets in Europe. Therefore, immediate priorities may be the full electrification of the main train lines, the privatization of TRAINOSE, the state-owned rail operator, and infrastructure investment to enhance the EU transport corridor—known as "Corridor X"—that connects Greece to Central Europe through the Balkans. The ports could continue to facilitate this strategic connection with the rail line.

In the second category are factors holding back the modernization of the logistics industry. These are primarily related to the design and implementation of government regulations. In particular, the government may want to consider simplifying and speeding the execution of licensing for warehouse construction, including revising onerous fire safety regulation to align more closely with European standards. The Government may want to also simplify and clarify steps required to become a third-party logistics provider.

To help modernize the sector, the Government may consider establishing a comprehensive legal framework for logistics operations, based on outcomes rather than prescriptions, as is currently the case.

In addition, because these reforms will take time, the Government may make concerted efforts to institutionalize a nimble and flexible vehicle for executing them, such as an advisory body that will survive changes of government.

In short, the report recommends that the Government collaborate with the private sector to:

1. Look at the big picture: Develop concrete logistics priorities, set in place a mechanism for sustaining the policy action over time with coherence and flexibility, simplify procedures, improve coordination between agencies and communication with the public, promote professionalism in the sector, and enforce regulations in a systematic and predictable manner to minimize costs and delays.
2. Invest strategically: Ensure that logistics infrastructure does more to connect Greece to Europe through the most cost-efficient routes, and place emphasis on the rail and port sectors.

3. Target medium- to long-term market demand and build a reputation for high-quality service and reliability: Support the modernization of logistics service providers, promote the phasing-out or the reconversion of low-quality informal clusters into well-developed logistics parks, enact regulations that simplify licensing, encourage investment in logistics and the use of outsourced logistics services, align legislation on the safety and security of establishments with best European practices, clarify scope, taxation, and conditions of operation of logistics services and required qualifications, and make the Greek logistics industry more competitive and sophisticated overall.
4. Facilitate international trade: continue to streamline customs and fiscal procedures.

Introduction

The World Bank Group (WBG) wrote this report as part of a project designed to assess the competitiveness of the logistics sector in Greece and to develop policy recommendations. The World Bank is carrying out the project at the request of the Greek Ministry of Development, Competitiveness, Infrastructure, Transport, and Networks (currently split into the Ministry of Development and Competitiveness and the Ministry of Infrastructure, Transport and Networks). The report is part of a technical assistance package provided by the World Bank Group to the Government of Greece on enhancing the business environment and trade logistics. The package has been facilitated by the Task Force for Greece (TFGR, an arm of the European Commission), which arranged the financing from the EC technical assistance budget.

The document is structured in the following way: First, it provides an overview of the state of logistics in Greece, comparing the country to its peers and highlighting some of the important features that distinguish the country's situation. Second, it provides detailed, technical observations on specific aspects of the logistics environment in Greece. Third, the report describes key actions—drawn from both expert observations and the working groups' conclusions—that the Greek government may want to undertake to improve its logistics performance. Finally, in the Annexes it describes the intensive, consultation process that is allowing key stakeholders within the business and policy-making communities in Greece to provide inputs for a National Logistics Strategy.

CHAPTER 1:

Logistics in Greece: Importance to the Economic Recovery, Opportunities and Challenges

Economic recovery and the role of logistics

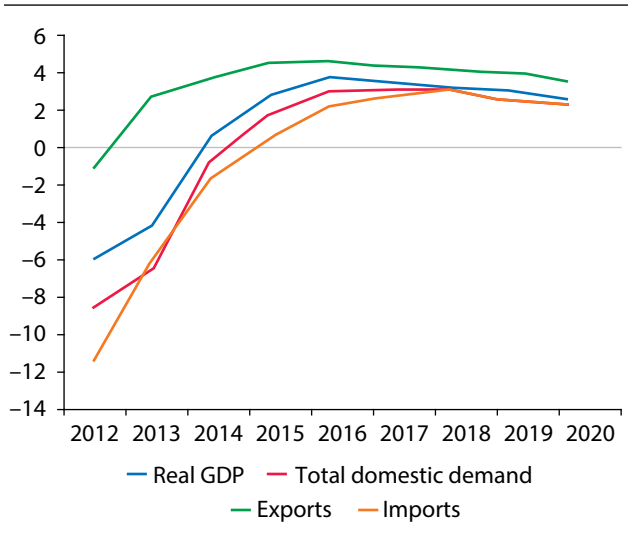
Greece's economic recovery will take time and new sources of growth. Exports will likely play an important role in that recovery, especially through 2014, according to International Monetary Fund projections (Figure 1.1). Raising exports will not be easy, however, given continued weak demand in major European Union (EU) markets. In addition, goods exports have to grow from a low base and diversify. On the services exports side, shipping is highly dependent on the global economy, and tourism is unlikely to grow dramatically. However, positive signs are already emerging. After exports contracted by 0.3 percent in 2011, export growth is forecasted at 3.2 percent for 2013 and an annual average of 3.9 percent in 2014–17. This should strengthen a fragile economic recovery from 2014 onwards.

Efficient logistics can play an important role in Greece's recovery in several ways: It can reduce the costs of importing and exporting; it can contribute to GDP growth as a service sector; and it can reduce the fragmentation of the domestic economy, thus improving economies of scale and productivity. Greece is geographically and economically well-located. Piraeus Port, the deepest seaport on the Mediterranean, is close to the Mediterranean maritime route and has already started developing as a significant trans-shipment center. Both Piraeus and Thessaloniki have the potential to evolve into gateway ports to South East Europe and Central Europe. Provided that a long-distance, reliable railway connection can be established, Greece can take advantage of the economic growth in Eastern Europe and the regional production networks established between Eastern and Western Europe. Becoming a regional gateway will require competitive logistics along the whole supply chain, in addition to efficient ports and railway connections.

Better logistics will also reduce the extent of fragmentation of Greece's supply chain. A fragmented supply chain makes it particularly difficult for smaller businesses to enter foreign markets. Small and medium enterprises (SMEs) account for the bulk of manufacturing firms in Greece and are often unable to realize the economies of scale needed for trade, since according to the Hellenic Federation of Enterprises (SEV) only 27 percent of manufacturing firms have more than 250 employees. While the predominantly small size of Greek manufacturing firms may have cultural roots, part of the phenomenon can be attributed to a constraining and often distortive regulatory framework that possibly limits firm growth. Efficient logistics can promote scale economies and clustering of activities, helping firms overcome size disadvantages.

Currently Greece ranks relatively poorly in indicators measuring the sophistication of value chains, as well as externalization of supply chain and logistics activities, which are expected in advanced economies. This is based on the indicators proposed by the Global Competitiveness report un-

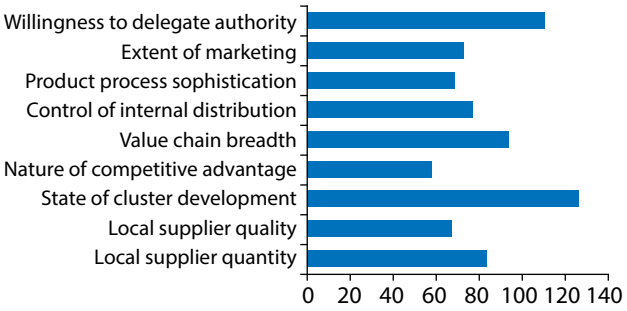
FIGURE 1.1: **Exports will drive growth in the near future (percent change)**



Source: IMF 2013.

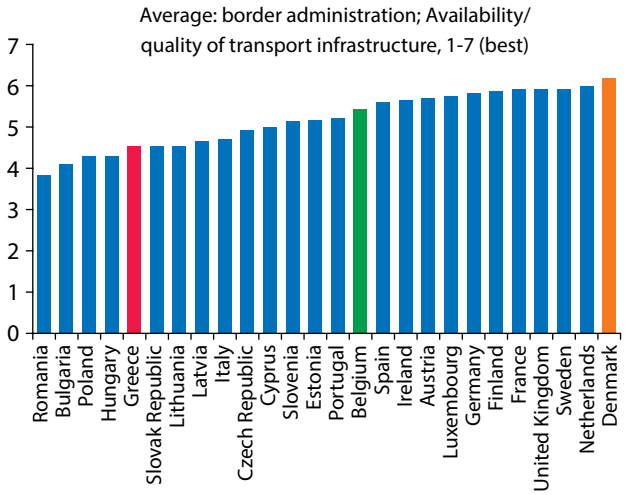
der its Pillar XI "Business Sophistication" (Figure 1.2). It also ranks at the lower end, from the same source, in quality of border administration and transport infrastructure among countries in Europe (Figure 1.3).

FIGURE 1.2: **Greece ranks poorly on clustering and value chain (rank among 144 countries)**



Source: Global Competitiveness Report 2012–2013.

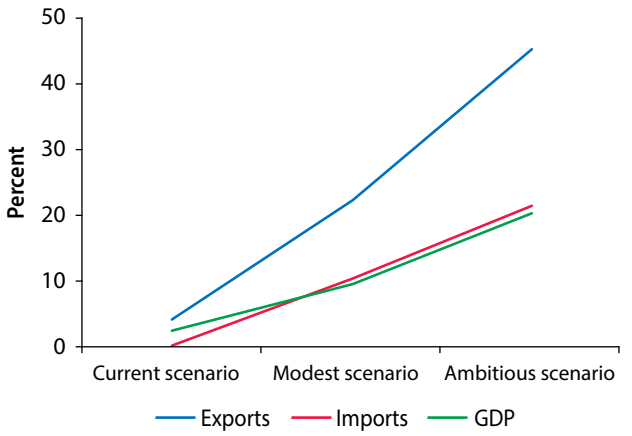
FIGURE 1.3: **Greece ranks low in border administration and transport infrastructure**



Source: Global Competitiveness Report 2012–2013.

In theory, based on those indicators, improving supply-chain efficiency by bringing border administration and transport infrastructure to the level of Denmark (the highest score in Europe for the average of these two indicators) could increase Greece's exports by 46 percent.[1] GDP, in turn, could increase by 21 percent (Figure 1.4). Those numbers would not be attained by the measures proposed here alone, and implies a convergence on the long term. However, they give an indication of the significance of the gap with the best EU performers. Reducing supply-chain barriers lowers costs and prices, both to consumers and to firms that import production inputs. Workers benefit as well from better supply-chain efficiency, as the boost to GDP is likely to stimulate employment growth. In the long run, improved trade facilitation promotes a shift in resources to more productive industries and firms, thereby increasing productivity and wages (World Bank-WEF report January 2013).

FIGURE 1.4: **Trade and GDP can increase drastically with improvements in trade facilitation**



Note: Potential growth in GDP and trade if border administration and transport infrastructure in Greece moves to Belgium level (modest scenario) or Denmark level (ambitious scenario).

Source: Courtesy of Marinos Tsigas, USITC.

Can Greece's logistics reach such levels? There are challenges, especially under the current economic conditions, in which structural rigidities and economic austerity place a drag on swift change. However, there are also opportunities for reform that can build on existing successes.

Many sources of inefficiency can be traced back to regulation. Greece is one of the most highly regulated countries in Europe. The same constraints that hold back the overall business environment, also affect logistics (Box 1). It will take a

1 Estimations by Marinos Tsigas, based on the GTAP model used in the WEF competitiveness report. Marinos Tsigas is affiliated with the USITC; his analysis is not meant to represent the views of the USITC or any of its commissioners.

BOX 1: Voices of the Private Sector

- "Greece is the country of logistics, but the logistics culture does not exist."
- "There is no way you can comply with the law."
- "Enforcers checks are more frequent on firms that try to comply with the law, rather than focusing on firms operating in the large grey area."
- "We told the workers (in Thessaloniki port) that if they continue the strike and we lose shipping lines they won't come back; it's gone forever."
- "We need to use the train more, we need them (the rail company) to do business and they need us to survive; if we don't make it we both die."
- "I call the train station to ask why customs has stopped my shipment; they say there is no one around to answer the question, call back tomorrow. How can I do business like this?"

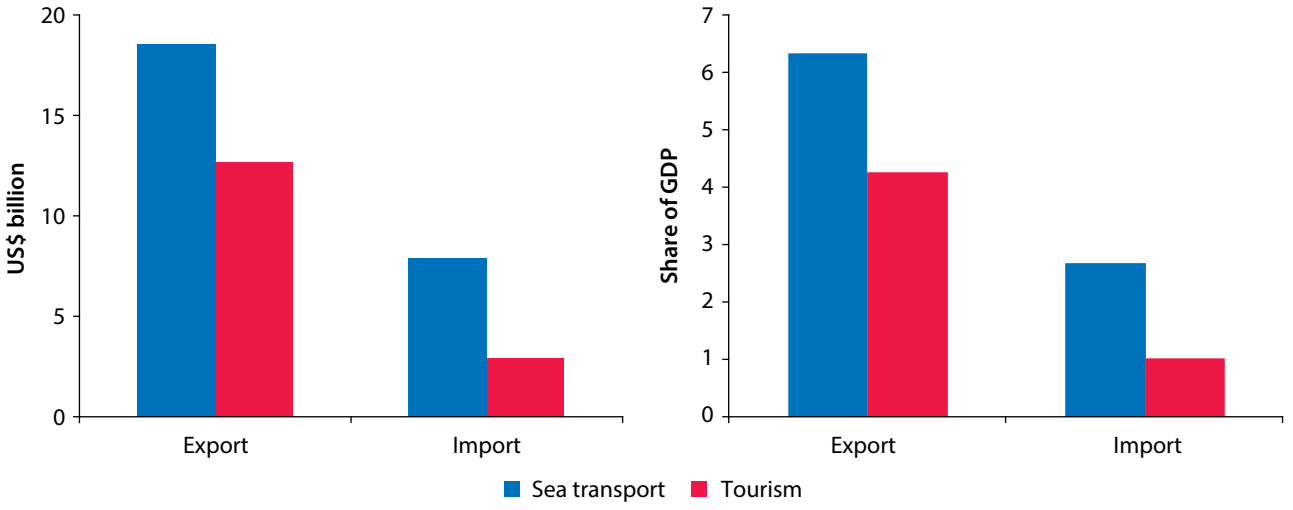
Source: World Bank team interviews to private sector stakeholders, January 2013.

major reform effort by the Greek government to improve its logistics sectors to a measure of quality and efficiency sufficient to successfully compete regionally.

Greece is a superpower in shipping. Greek ship owners control the world's largest merchant fleet—measured at 225 million deadweight tonnage (DWT)[2] or 16 percent of world total in 2012 (UNCTAD 2012). Most Greek ships are used in spot and time charter markets—typically for shipping dry and liquid bulk goods between third countries (not involving Greece as an origin or a destination). Most of the Greek shipping business is managed through offshore companies. This means that most shipping activity is detached from domestic logistics markets or operations involving transit or merchandise trade in Greece. However, with reforms, there is potential to attract these offshore companies to Greece. This can provide a boost to the sector, not only in shipping, but also along the whole supply chain. This would make it possible for Greece to achieve its vision of becoming a regional hub. Greek prominence in shipping is already visible in services trade data (Figure 1.5). Its export revenues from sea/ocean

2 DWT is a measure of the weight that a vessel can carry safely.

FIGURE 1.5: **Sea transport is doing well in Greece**



Source: UN and World Bank.

transport were larger than revenue from tourism, reaching US$13 billion (about 6.5 percent of GDP) in 2010.[3]

How well is Greece doing in logistics compared to others?

Economic growth and prosperity depend on how effectively a country's supply chain operates and connects to its neighbors and to global markets. While geography plays a role, policy matters for logistics performance, whether it is for infrastructure investment and operation, licensing, implementation, enforcement, or trade facilitation at the border. In short, policy matters for creating an overall conducive environment for logistics services (Box 2).

Greece has been part of the European Union for a long time, but had no contiguous borders with any EU member until recently. Even today, Greece's trade with the Western part of the EU—its largest trading partner—relies on shipping services or transit through non-EU countries, such as Serbia or the Former Yugoslav Republic of Macedonia (FYROM). This discontinuity in Greek supply chains has isolated Greece from mainstream European practices and has led to idiosyncrasies that resulted in the relatively poor performance of key logistics services. The trucking industry has not been embedded in the rest of the EU network and did not have much opportunity to develop. At the same time, it was relatively protected domestically. Because Greece did not have land borders with the EU until Bulgaria's membership to the EU, Greece's Customs Authority faced far less operational pressure to maintain EU standards than did countries in the EU heartland.

As the Greek government puts in place reforms to address weaknesses in the performance of the supply chain, it could best take care to look at the connectivity of Greece relative to that of its neighbors. This allows policymakers to assess logistics performance and improvement within Greece, but it

3 Statistics on services trade differ in some respects from merchandise trade statistics (e.g., the nationality of a vessel determines whether a certain service provision is regarded in national statistics as import, export, or not at all).

BOX 2. LOGISTICS: What Matters to Improve Supply Chains

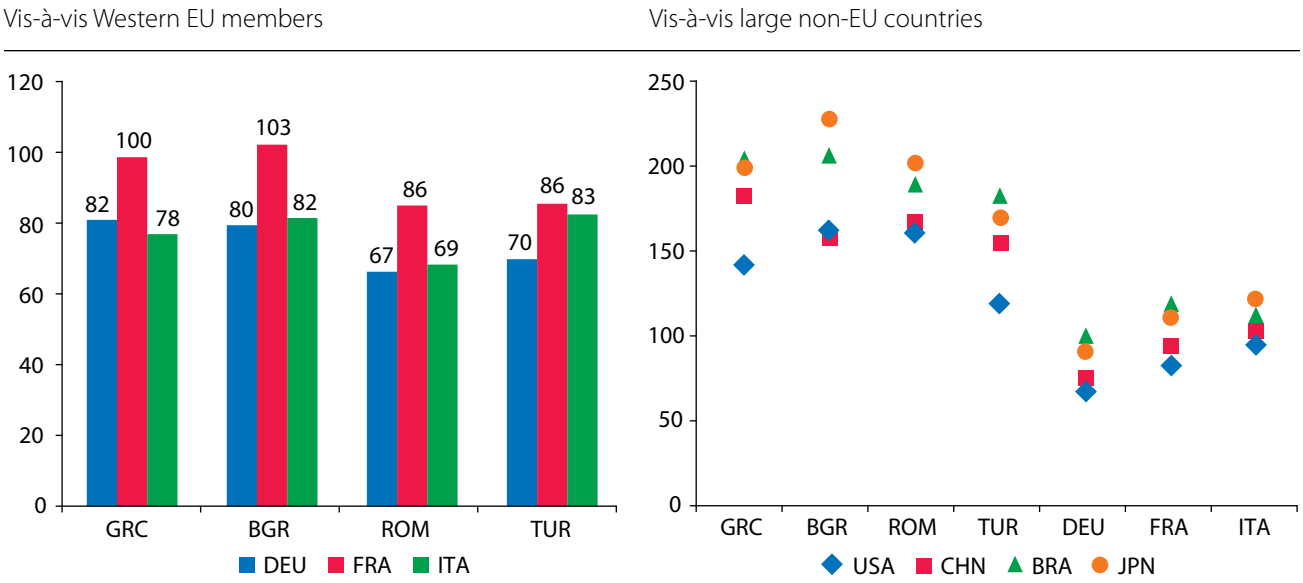
In 2007, the World Bank launched the now widely-accepted concept of logistics performance. It also introduced a framework, which has become a standard, to analyze national supply chains. Logistics performance captures the different dimensions of supply chain efficiency, including how supply chains connect globally and regionally, and how each is influenced by national endowments and policies. The three pillars of logistics performance include:

- Availability and quality of trade-related infrastructure: ports, airports, roads, railroads.
- Friendliness and transparency of trade procedures implemented by customs and other border control agencies.
- Development and quality of logistics services such as trucking, warehousing, freight-forwarding, shipping and customs clearing, and value-added logistics services (third and fourth party logistics).

Thus, logistics performance and the ability of countries to connect to international markets depend upon a range of policy interventions that can be implemented at the national or, increasingly, at the regional level. Priority areas for logistics performance improvement in most countries include:

- Regional integration and development of trade corridors: border crossings and transit regimes;
- Customs reform and trade facilitation;
- Border management extending beyond customs;
- Port reform;
- Regulations and development of logistics services (such as trucking, third party logistics, freight forwarding, and warehousing);
- Development of performance metrics; and
- Building public-private coalitions for reforms.

FIGURE 1.6: **Bilateral trade costs for Greece and comparator countries (ad valorem equivalent)**



Source: Trade Costs Database, World Bank (data for Greece is 2008).

also allows them to compare Greece's performance to major competitors and peers.

Trade costs

Differences in size and endowments of national economies are not the only explanations for differences in the volume of trade. Distance, supply-side constraints (such as poor logistics), and inefficiencies (such as those created by tariff and non-tariff barriers) also play a large role in determining the cost of trade between two countries. Calculations of bilateral trade costs capture the price-equivalent of unrealized potential trade. That is, they calculate the reduction of international trade, as compared with the potential implied by domestic production in the origin country and consumption in the destination markets.[4] Higher bilateral trade costs result in smaller bilateral trade flows.

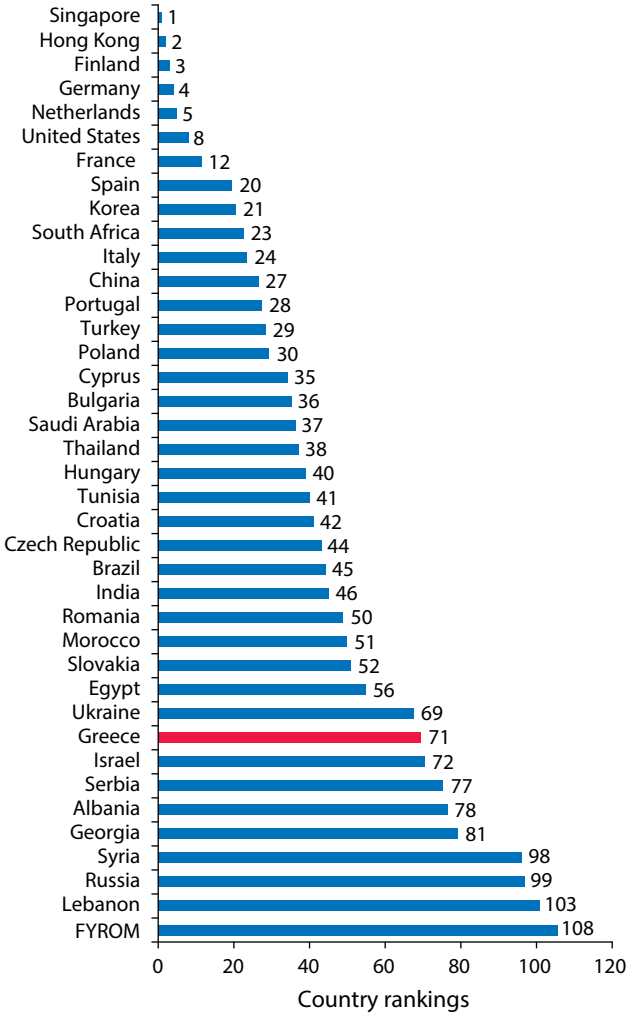
Greece has higher trade costs than other countries in the region (Figure 1.6, left panel). Trading with EU markets is more costly for Greece than for Turkey, though Turkey is farther away from the EU than Greece and economically less integrated into the EU. Over the same distances, Greece does not perform much better than Romania and Bulgaria, which are countries in transition, less wealthy, and only recently joined the EU. Greece, Romania, Bulgaria, and Turkey have about the same level of bilateral trade costs vis-à-vis Italy, though Greece is much closer to Italy and more easily connected to it. With distant markets, Turkey does unambiguously better than Greece, which has the same broad cost-patterns as Bulgaria and Romania, despite the fact that Greece is much better located than the Black Sea countries in terms of shipping connections (Figure 1.6, right panel). Compared to the older members of the EU, Greece has double the trade costs that Germany, Italy, and France have, regardless of whether the destination is the USA, Japan, China, or Brazil.

Logistics performance

The nation's relatively high trade costs are associated with inefficiencies in the supply chains connecting Greece inter-

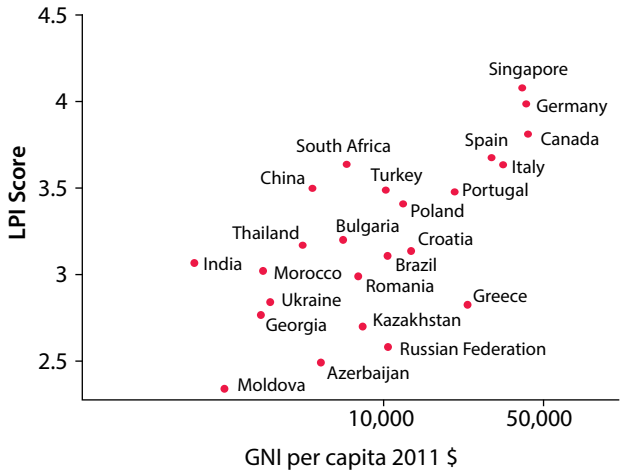
4 The recently published World Bank-UNESCAP dataset (Arvis et al., "Trade Costs in the Developing World," Policy Research Paper WPS6309, The World Bank 2013) proposes comprehensive measures of trade costs for 178 countries over the 1995-2010 period using the inverse gravity methodology described in Novy (2013). The trade costs are ad valorem equivalent computed from trade and production data. There are two main sources of trade costs: (i) exogenous, such as geographical distance, common features between trading partners such as language, common history, sharing a common border, or participation in the same economic community; and (ii) endogenous, such as logistics performance in cost, delay, and reliability, and trade facilitation bottlenecks resulting from border control, and transit systems with third countries, international connectivity, and tariffs and non-tariff measures).

FIGURE 1.7: **Greece ranks low in logistics compared to its neighbors… (LPI ranking, 2012)**



Source: LPI 2012.

FIGURE 1.8: **…And performs below countries with similar per capita income**



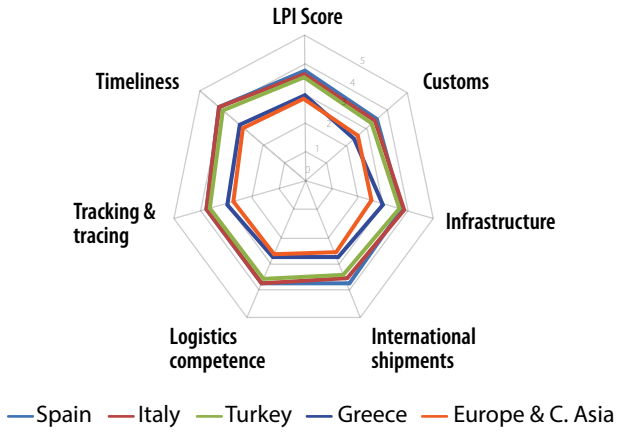
Source: LPI 2012.

nationally. To obtain an assessment of how efficient and competitive each nation's logistics network is, the performance of international supply chains is measured using the Logistics Performance Index (LPI). It is based on the assessment of logistics professionals located in the country's major trading partners, and is a weighted average of six components that are critical for logistics performance: efficiency of the customs (border) clearance process; quality of trade and transport-related infrastructure; competence and quality of logistics services; ease of arranging competitively priced international shipments; ability to track and trace consignments; and timeliness and frequency with which shipments reach the consignee within the scheduled or expected time (see Box 2).

Greece does not compare well with its neighbors or its competitors in logistics performance. Greece tends to perform less well than Turkey, Romania, Bulgaria, or even countries from the Southern rim of the Mediterranean (Figure 1.7). The comparison is even less favorable when the LPI is adjusted for the level of development as measured by GNI per capita. Greece performs relatively less well than countries with similar per-capita income (Figure 1.8). In fact, there is a substantial gap in logistics performance between Greece and other EU countries. This gap is in part due to the fact that Greece's supply-chain-related reforms and improvements did not follow the pace of economic growth in previous decades.

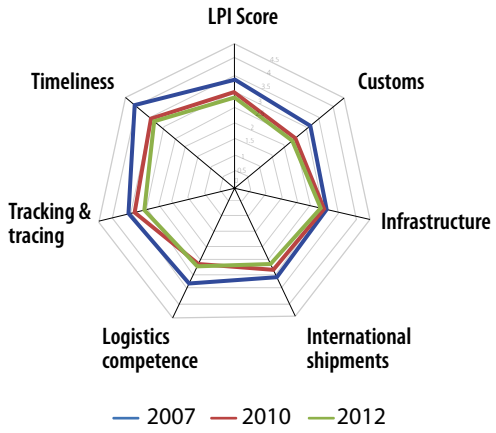
Greece is on par with Eastern European countries across various components of the LPI, although it ranks better in infrastructure. It underachieves when compare to Western European countries and Turkey in every component of logistics, particularly border control and quality of logistics services (logistics competence) (Figure 1.9). Since 2007, logistics performance has declined, including customs, timeliness, and in logistics services competence (Figure 10). Worsening performance can partly be explained by the global crisis and the economic crisis in Greece, and partly, as the indicator is relative to the fact the other countries have improved substantially, when improvement in Greece are more recent.

FIGURE 1.9: **Logistics performance is below Western Europe in all its components in 2012…**



Source: LPI.

FIGURE 1.10: **…and has deteriorated since 2007**



Source: LPI.

Maritime connectivity

Greece fares much better in maritime connectivity than in logistics performance and trade costs. According to the Liner Shipping Connectivity Index (LSCI)—an assessment of how well a country is served by container shipping—Greece ranks 25th in the world in maritime connectivity (Figures 1.11–1.12).[5] Its LSCI indicates a significant improvement from 2011 to 2012, reversing the negative trend since the beginning of the crisis. This improvement in maritime connectivity reflects the success of the reforms. These reforms have led to the growth of trans-shipment activities in Piraeus and a larger offering of shipping connections brought by the recent development in the Piraeus Container Terminal (PCT) operated by COSCO. The potential is still large. Container volumes in Piraeus are relatively small compared to the largest European ports, and rather modest, even compared to the nearby eastern Mediterranean ports (Figure 1.13).

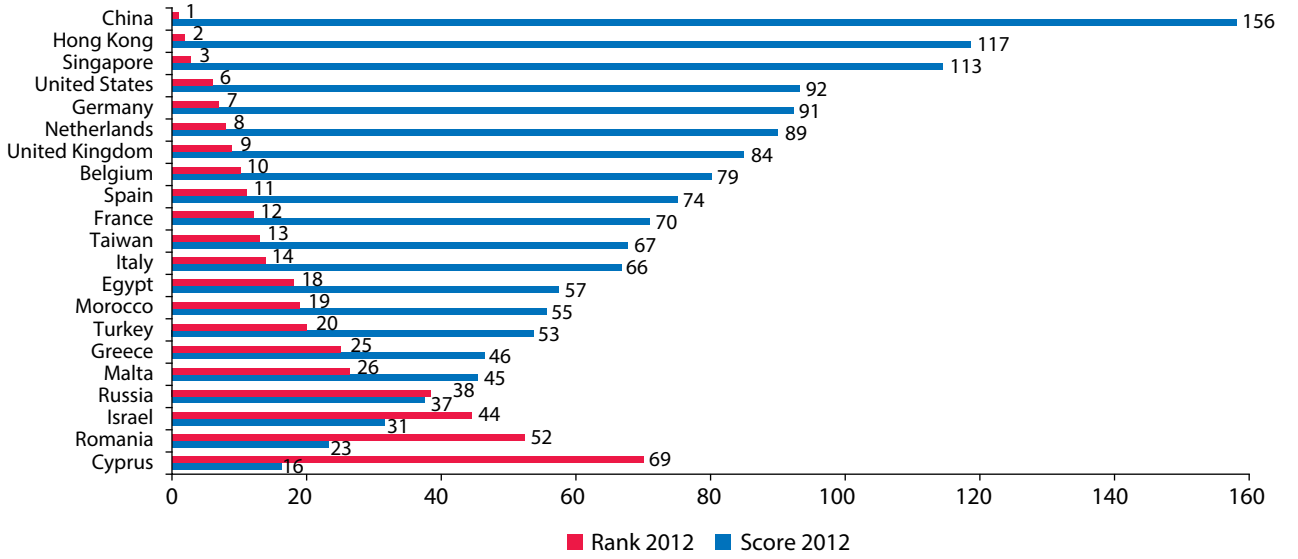
Logistics practices and network in Greece

The complexity of the supply chain is exacerbated by Greece's fragmented geography. In general, logistics services involve an intricate set of interdependent activities, as well as many private and public actors (Figure 1.14). In Greece, this complexity is exacerbated by geography: the country is made up of thousands of islands with few, large economic centers. Figure 1.15 indicates the logistics for the distribution of a single product (beverages) in Greece. It requires central and peripheral nodes of distribution involving transportation services (via truck, rail and shipping), warehousing, third party logistics, supply-chain management, insurance, inventory management, and border controls. Performance in each activity partly depends on performance in the upstream activities.

Efficient global logistics providers operate in Greece, but they are only partially integrated with the rest of the Greek economy. Global players in logistics are present in Greece, and include Kuhne & Nagel, DHL, Shenker, Geodis, Panalpina, and Express. Along with few large Greek operators, they operate efficient supply networks and provide their clients with timely and cost-effective deliveries between Greece and the rest of Europe, into and from their logistics centers in the Attica and Thessaloniki regions. However, this modern lo-

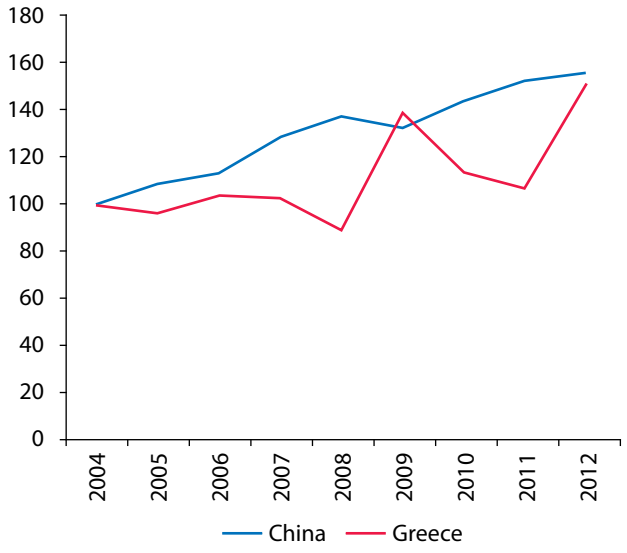
5 The LSCI (produced by UNCTAD) aggregates information such as volumes of containers for the economy relative to its size, number of shipping lines and maximum boat size serving the country. Countries with high activity or hosting shipping hubs have a high score. The reference number 100 corresponds to the highest score country (China) in 2004. The LSCI includes trans-shipment activities, and hence is higher for countries hosting regional hubs. The LSCI does not include other maritime services such as ferries or Ro-Ro, which play an important role in connecting Greece to its main markets. Countries that rely heavily on ferry and Ro-Ro shipping include Albania, Finland, Ireland, and Norway, which score low in the LSCI.

FIGURE 1.11: **Greece ranks 25th in the world on container shipping connectivity**



Source: UNCTAD.

FIGURE 1.12: **Greece shows a large improvement in container shipping connectivity in 2012 (base=100 in 2004)**



Source: UNCTAD.

gistics industry does not have strong linkages with the rest of the Greek economy; the rest of the logistics industry operates at a much lower quality and reliability level than is required by these international and large firms.

Below the international logistics companies, the current organization of nationwide logistics to serve the final customer is sub-optimal and fragmented. There are several layers (and quality levels) of distribution services in Greece. Distribution to the provinces and the islands tends to be of lower quality than international distribution. International and large Greek companies typically contract an intermediate layer of medium-size domestic third-party logistics providers (3PLs) to ensure distribution to warehouses in the provinces. Local distribution within provinces and warehousing is carried out by small companies, which operate small trucks on "own account" and "own logistics" facilities. These are businesses that are not clearly differentiated; they do retail as well as logistics for others. Small-scale logistics is also dominant for distribution in the islands. The quality of these services is far from the state-of-the-art services found in the EU. For example, no attention is given to dangerous goods in ferry transport.

The use of outsourced logistics services is comparatively low in Greece. The level of outsourced logistics in Greece stands at 23 percent compared to 49 percent in Europe, according to SEV. This is partly due to regulatory constraints that hinder the development of modern commercial transport and logistics services, as well as other factors. These factors include the preference of many (typically family-owned and family-run) Greek companies for carrying out their warehousing, and transport and logistics services in-house. Typically, outsourced logistics account for 80–90 percent of

FIGURE 1.13: **Big potential ahead: container volumes of Piraeus still small compared to Greece's neighbors**
(largest European container ports in 2011 by TEU volume)

Source: Eurostat, Colliers 2012.

all transport expenditures. In Greece, it is about 20 percent. Similarly, the share of outsourced warehousing and inventory management expenditures is typically around 50 percent within manufacturing and trading, whereas in Greece it is below 20 percent.

Promoting consolidation and increasing outsourcing of logistics will improve the efficiency of the supply chain. The use of outsourced logistics services is not a goal in its own right, but its prevalence in Western European countries demonstrates that it is an effective way of managing supply chains. It provides a high level of service and reliability while keeping costs relatively low. In Greece, increasing the use of outsourced logistics services is not going to be easy, as many Greek firms have already built their operational practices and invested in facilities and equipment around the in-house model. Such an operational model often has lower productivity levels than a specialized third party logistics provider can offer. It is due to the fact that equipment and facilities can hardly be used at full capacity, as a specialized provider can do. This is because a specialized provider would handle several types of merchandise with different storage cycles at once. However, as currently there is excess supply of logistics services capacity, the pressure to increase the efficiency and competitiveness of operations among logistics users seems to be forcing part of them to look for outsourced, or 3PL, services. This also means that the current cost level for such services is low by any measure, by international comparison.

The average productivity of Greek truckers is notably low, but it is unlikely that it will deteriorate further. Losses in market share will take place if the trucking sector does not reform, but this is not an immediate risk. Finally, the use of rail transport can remain minimal—carrying a scant two percent of the total Greek exports (Figure 1.17)—without much change to the export picture in Greece. However, not advancing on the reforms and capitalizing on the available opportunities will come at a large opportunity cost.

FIGURE 1.14: **Logistics services in a typical supply chain**

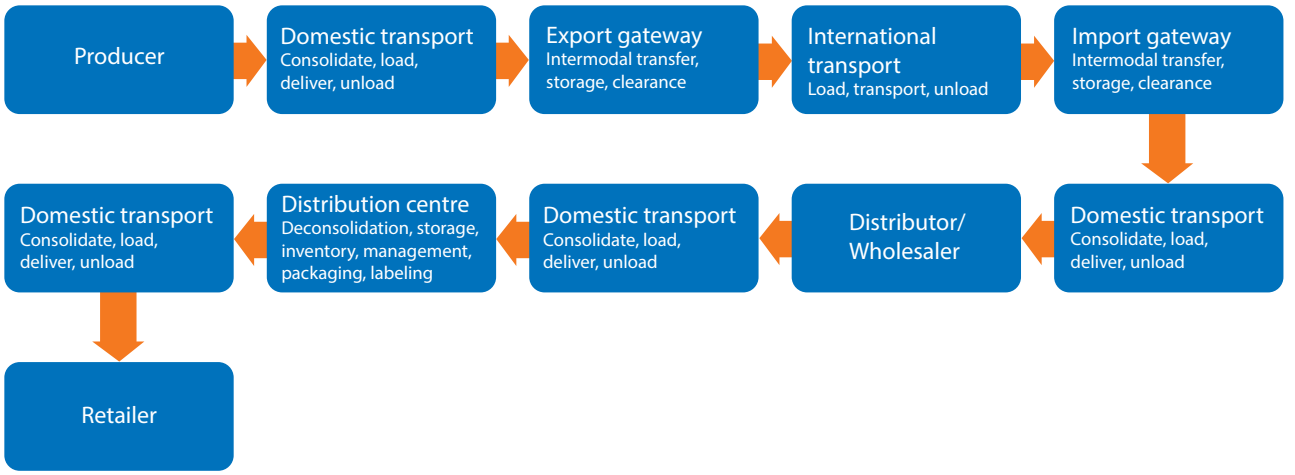
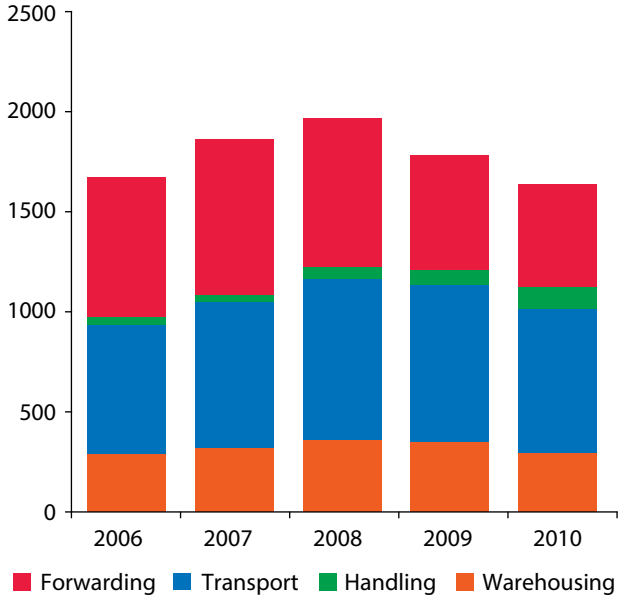


FIGURE 1.15: **Distribution network of a single consumer product in Greece: not an easy matter**

Note: This image depicts the distribution network of a beverage company in Greece. The squares are the major distribution centers and the lines are the distribution channels. The black arrows show the international shipping connections of the largest distribution centers.

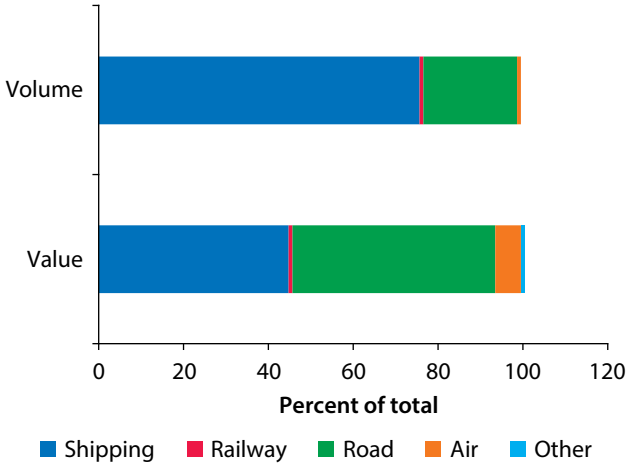
Greece has a choice: it can maintain this status quo, or it can leverage the good performance of shipping and the modern logistics operators in the country to become a regional gateway. In shipping, in particular, not only can Greece establish itself as a trans-shipment hub and gateway over the medium term, but it can also generate important spillovers in terms of logistics competence and services available in the country. These synergies are achievable. They materialized in nearby countries: in the 2000s, the development of Tangier Med in Morocco (about three times the size of Piraeus) helped attract international logistics providers and investments in logistics zones for the European and African Markets.

FIGURE 1.16: **Greek logistics services (in billion Euros)**



Source: SEV.

FIGURE 1.17: **Rail: the big absent (volume and value of exports using various modes of transport)**



Source: SEV.

CHAPTER 2:

A Detailed Review of the Greek Logistics Setting

This section looks in detail at various sectors of the Greek logistics environment. It focuses largely on the regulatory environment, with an eye toward legal loopholes, flaws in market structure, and distortions. The goal of this examination is to identify changes that could make the market more predictable and cost-competitive for operators, while also cheaper for consumers. Given that the objective of the report is to identify priority reforms to improve significantly Greece's business environment in the short to medium term, the section discusses some topics (i.e., horizontal hurdles, road transport, logistic services, and issues of trade facilitation) more in detail. Regulatory reform in these areas appears to be fairly viable and able to lead to efficiency gains by boosting the competitiveness of existing businesses while also encouraging competition and market contestability. Other areas (e.g., ferry shipping, ports, railroads) are discussed in a more concise manner. Reforms in these areas can lead to "big wins," but they may be politically difficult or require significant investment.

Since the economic downturn means that large, expensive projects are not a priority, the focus is on areas that can be fixed with little up-front investment. One essential component of modernizing logistics is structuring the market so that businesses choose to outsource services (transportation, logistics, etc.) and focus on their core functions. This section first gives an overview of some of the institutional hurdles to improving logistics in Greece. Second, it examines a range of transport sectors, focusing on obstacles to efficiency that require little infrastructure or other large investments. Weaknesses include elements of the regulatory framework and enforcement of regulations. Third, it looks at logistics services—in particular, warehousing and third-party logistics providers—and some of the issues that are related to product distribution in Greece. Finally, it examines logistics concerns that are specific to an international context, focusing on trade facilitation hurdles and issues related to supply-chain efficiency. In each case, the goal of the analysis is to make the business environment more predictable and competitive, not only for transportation and logistics providers, but for the businesses that use those services.

Institutional challenges

Both the design of logistics-related policies and their implementation pose challenges in Greece. Over the years, the Greek public policy framework has remained rather static with respect to creating an efficient regulatory environment for logistics, in contrast to practices from EU member states with the best logistics. Greece has differed in at least two ways. First, the country has seen a proliferation of *ad hoc* regulations applied to logistics activities on top or in place of the EU-*Acquis* (i.e. accumulated legislation, legal acts, and court decisions which constitute the body of European Union law) with much duplication, overlap of administrative responsibilities, and unnecessary constraints. Second, Greece has exhibited relatively weak implementation and enforcement capacity in several areas. This situation generates distortions, including incentives that encourage inefficient practices, weak compliance, or non-compliance with regulations and missing or underdeveloped markets for some logistics activities. Ultimately, these distortions slow the transition of the sector to modern, world-class standards.

A complex regulatory framework

As in many countries, responsibility for regulating logistics-related activities does not fall to a single ministry. Moreover, some areas are regulated at the sub-national level. The nature of supply chains means that improving logistics performance cuts across many policy areas. Take, for instance, the case of a 3PL, whose job it is to integrate most activities along the supply chain. Such companies may have to deal with the following regulations, some of which are not specific to logistics:

- Investment financing, including regulations for concessions and private-public partnerships (PPPs) if the operation is on a public land, EU subsidies (such as co-financing of specific sectors and activities through EU structural funds), national grants, and access to private funds.

- License to engage in an economic activity; establishing a firm (e.g., trucking, warehousing).
- Truck registry regulation (new and second-hand vehicles) and truck license regulation.
- Land use and zoning regulation for (logistics) facilities, including spatial planning, forest, and archeological permits.
- Warehousing regulation, including establishment, operation, construction, environmental, safety, sanitary, and fire regulation.
- Import and export regulations, including fiscal regulation, customs broker regulation; customs code for special regimes; commercial code for transport transaction (CMR).

Coordinated and coherent regulations are required for the efficient functioning of many aspects of logistics: transport (road, rail, and water), storing of merchandise, managing goods at the border, the value-added services associated to the activities above, and the development of durable import-export relationships. In Greece, the logistics regulatory framework is a maze, creating a sub-optimal logistics sector characterized by uncertainty, obstacles, poor compliance, perverse incentives, and a reduced ability to attract foreign investors expecting similar rules and practices to those found in other EU countries. Examples of complex regulations abound (see Box 3).

The complexity of the regulatory problem is exacerbated by the nature of the logistics sector, since logistics services along the supply chain interact and intersect in many ways. There are logistics centers, warehousing, road haulage/trucking, domestic or islands shipping, forwarding, handling, 3PLs, couriers, and other advanced logistics services. Such services can be provided by individual firms that focus on one service only or by firms that combine several services (large logistics companies integrate transport and warehousing, work directly with the customs administration, invest in and develop key infrastructure, such as ports, to provide high quality and global logistic services from the point of production to the point of consumption). Logistics activities, such as warehousing, have a large footprint on land and environment, which means that zoning, environmental, and safety regulations apply.

The number of regulations in itself is not the problem. It is the lack of coherence and consistency among the regulations and their inconsistent implementation that create inefficiencies and distortions. Regulations typically have a legitimate purpose to safeguard an environmental, social or fiscal concern. A 3PL in any country will have to comply with a number of national-level regulations, often taken in application of an EU directive. The type of regulations is consistent across the EU. However it is less easy of complying with them. Their implementation by public agencies on the ground makes the process of permit and license more complex with more administrative steps and delays.

The challenges of "doing business" across the country are mirrored in the logistics sector. These challenges include over-regulation, excessive cost of—and long delays in—opening a business; difficulty of hiring workers and ending their employment, etc. Significant reforms to the labor laws in the past three years have introduced a lower minimum wage, lower compensation, and a shorter notification period for ending employment while some areas of legislation, such as the regulations for industrial activities, have been streamlined and modernized (European Commission, 2013). However, little awareness about the new procedures and lack of adequate information on how to interpret them meant that implementation remains weak.

Fragmented implementation and enforcement of logistics policies

Coordination between enforcement agencies is also a problem and largely explains weak enforcement of regulations. In many areas of logistics, there is no formal link between the technical agencies in Athens and the enforcing agencies on the ground (except for customs, fiscal agencies and police). It is often the case that the central agency prepares and monitors policies and regulations, but enforcement needs to be carried out by the local agency. Yet, the connection between the central and local agencies is not always well-defined or well-established. In some areas, the local agency is not accountable and does not report back to the agency in Athens. For example:

- The regional and vice-regional governors (who are elected) often have substantial discretion over the interpretation and implementation of central government policies.
- The policy makers do not have data and cannot properly assess their legislative proposals or improve implementation. They, therefore, tend to rely on data from private consultants or third parties, which might be biased or inaccurate. This creates quality problems for legislative action and for the output produced by the agency in charge of preparing the parameters for implementation.

BOX 3: Understanding the logistics regulatory maze: Examples of complexity

- There are three distinct regulatory frameworks under which a warehouse can be established. The industrial legislation (Law3982/2011), the legislation for εμπορευματικός σταθμός that can be loosely translated as stations for trucks, freight car parks, cargo terminals (Presidential Decree 79/2004) and the municipal regulations, which govern the establishment and operation of warehouses attached to a retail activity and for own use. Moreover, while most licensing is the responsibility of regional and municipal authorities, this is not the case for facilities located in business parks or freight villages, which are regulated directly by the ministry or for facilities with high environmental impact. Having different frameworks is not a problem per se, as it reflects the fact that warehouses have different purposes (storage near a production or transformation site, storage for redistribution which needs frequent loading and unloading of trucks, storage of merchandise feeding large distribution chains). The problem is due to the fact that in some cases it remains ambiguous under which law an operator should get licensed. Moreover, the steps to get licensed under each law are different and so are the regulations and conditions of operation. This generates uncertainty and leaves scope for interpretation on specific issues. As a consequence licensing procedures can be lengthy and require several interactions between the operators and the public authorities. According to the private sector, to establish a warehouse, there are typically 15–20 different permits that need to be acquired from several authorities, including the fire department, the forestry authority and the archeological office. The total process time is typically 15–18 months or more.
- Lack of a clear framework, based on modern concepts of risk-based assessment, obliges authorities to carry out 100 percent checks for compliance on a number of requirements. This leads to long waiting times to get licensed. The problem has grown more severe since the crisis, as many public sector offices are severely understaffed.
- There are separate procedures for establishing logistics facilities, obtaining the necessary building permits, and for operating the facilities, with some of the steps duplicated in the different procedures.
- The existing legislation on the use of land is complex and sometimes is contradictory. With nine different zoning categories, it leaves scope for ambiguities on where logistics activities (mostly warehouses and logistic centers) can be established. This has led to a situation where warehousing facilities exist without a proper and coherent legal status, have been established in areas with different types of destination (commercial, industrial, etc.), sometimes in unregulated areas lacking adequate infrastructure and subject to very low construction coefficients (10 percent of total land), and require different permits. Retroactive changes in land use appear not to be possible either.
- The specific requirements written in a law for warehousing facilities of certain size, the detailed legislation requirements on logistic centers and their connections to ports, airports, or rail terminals to establish intermodality functions (Law 3333/2005), and some of the legislation regulating the trucking activities appear to complicate rather than help new investment in this area. Law 3333/05, its amendment 3773/08 and the related Circular dated October 2010 prepared by the then Ministry of Transport exist, but have not been used a single time.
- Some regulations, such as the one for 15,000 m^3 (or 1,500 m^2) maximum size (area) of compartments within a warehouse, are outdated in view of modern equipment, or redundant, and substantially hamper the logistics efficiency and productivity within warehouses.
- A firm providing warehousing or Third Party Logistics (3PL) services cannot own and operate trucks unless it establishes a transport company. While Law 3887/2010 allows 3PL to receive a license and therefore own and operate public-use trucks, as long as they comply with the relevant legal requirements, such division of activities hampers the efficiency and effectiveness of logistics operations. Furthermore, such restrictions are seldom found elsewhere in the EU.
- Until October 2013, for each individual road transport shipment (and even for transactions between subsidiaries within the same warehouse), an official paper-based delivery note needed to be issued by the tax authorities, creating a lot of possibly unnecessary paperwork. This requirement will change on November 1, 2013, as electronic payment of customs duties, taxes and other charges will become possible upon the entry into operation of ICISnet, the new integrated customs information system.
- While the recently-passed law on customs brokers liberalized access to the profession breaking the monopoly enjoyed earlier by customs brokers and allowing access to anybody meeting clear professional and financial criteria, logistics integrators and large traders still lament difficulties in hiring a customs broker as their employee, a common practice in other EU countries.

- Municipalities may duplicate national or regional procedures. Some municipalities issue truckers' licenses and the operator has to follow two identical and parallel procedures to obtain the license—one with the local authorities and one with the Department of Transport.
- The process for obtaining a license for warehousing is subject to duplications, in particular some of the steps necessary to obtain pre-licensing certificates for archeological, forestry, and environmental compliance are then required again for obtaining the permits to license the warehousing establishment. Similarly, the process for obtaining a building permit by the municipality is similar to the process to obtain an establishment license by the regional authorities (this latter is a pre-condition to requiring and obtaining the building permit).

Effective enforcement of road transport regulations is also limited due to problems of fragmentation. Although no systematic statistics exists, an estimated three-fourths of all roadside checks of heavy goods vehicles (HGV) in Greece are conducted by the Police under the Ministry of Interior. These appear to be conducted independently by each Police District and little nation-wide coordination or training seems to take place within the police force on this issue. The remaining one-fourth of roadside checks of HGV's are conducted by teams comprising staff of more than one agency, which responds to the regional government. Finally, additional checks are under the responsibility of agencies located in the ports and at the borders (such as the Customs authorities under the Ministry of Finance or the Port Police, which is under the Ministry of Shipping). The lack of a comprehensive collaborative agenda between agencies limits the ability of enforcement.

The transport industries

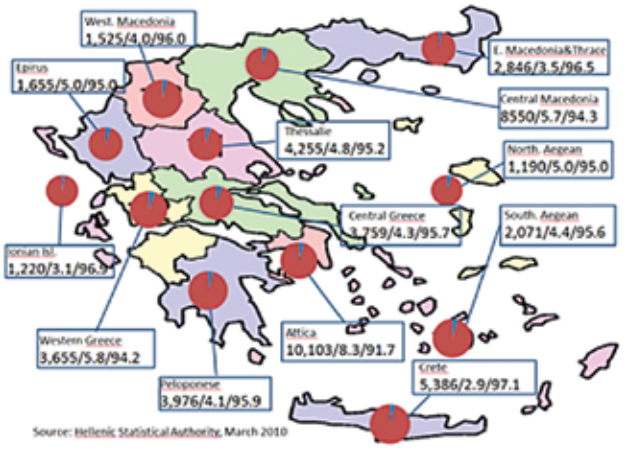
Road transport

Road transport is the primary mode used for freight domestically; it is also critical for international trade with the rest of the continent. Greece is excessively reliant on road transport of goods, which accounts for 98 percent of all land transport by volume and value, compared with 72 percent for the EU. The Greek trucking sector is of low quality and is dominated by operators who primarily use their vehicles to transport their own goods. The commercial sector is small and fragmented—few companies have more than 20 trucks, while two-thirds of the operators follow the "one-truck, one-owner" model. The trucking market was closed until recently, leading to deep-seated inefficiencies and high rents to licensed truckers. The opening up of the sector in 2010 will take time to have a positive impact, as existing operators will benefit from protective licensing regulations for another decade. Unless the trucking sector completes its transition towards consolidation and higher quality services, in addition to ensuring a level-playing field through better enforcement of trucking laws, its inefficiencies will ultimately translate into further losses in market shares for Greek truckers, to the advantage of foreign competitors. They will also continue to drag on the rest of the logistics supply chain and will hamper efforts to make Greece a logistics hub.

The trucking industry structure

The Greek trucking sector is of low quality, dominated by "own-account" transport operators, and fragmented. Own-account operators, who primarily use their vehicles to transport their own goods, account for over 90 percent of the trucking industry in all parts of the country (Figure 2.1). These operators typically fall under less stringent regulations

FIGURE 2.1: **An industry dominated by own-account trucks across the country** (total number of trucks/percentage commercial trucks/percentage own-account trucks)



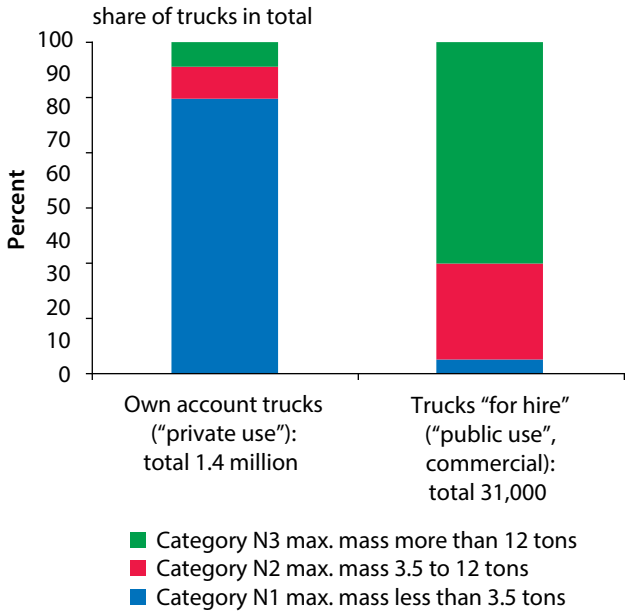
Note: According to professional associations, there are 33,000 trucking companies "for hire" (28,000 of which are one-man-one-truck) and 1,270,000 "own account" trucking companies. According to the Ministry of Infrastructure, Transport and Networks there are 30,752 trucking companies "for hire" and 1,431,618 "own account" trucks.

Source: Hellenic Statistical Authority (2010).

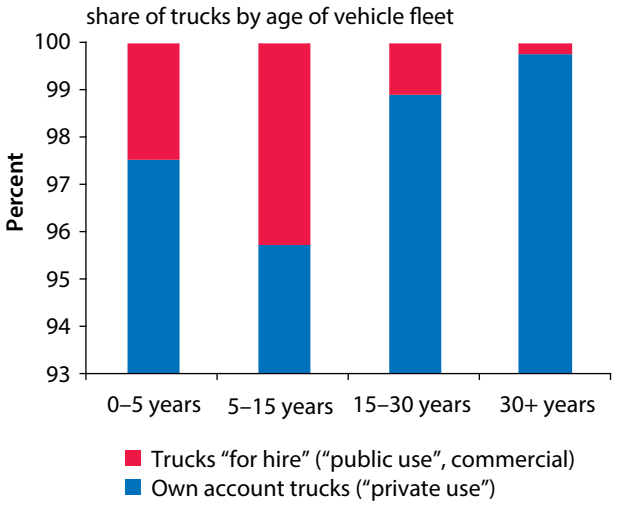
than professional transport companies. Moreover, over 80 percent of their fleet is more than 15 years old (Figure 2.2). The commercial sector is small and fragmented. There are few companies with more than 20 trucks, while two-thirds of the operators follow the "one-truck, one-owner" model. The volume of new-vehicle registrations dropped between 2010 and 2011, and continues to be well below that in Greece's neighbors.

FIGURE 2.2: **The trucking sector in Greece and its neighboring countries**

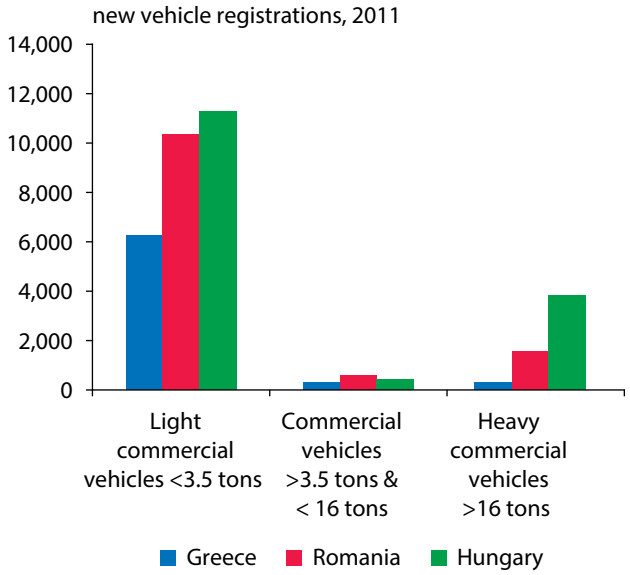
Private trucks dominate but are small in size…



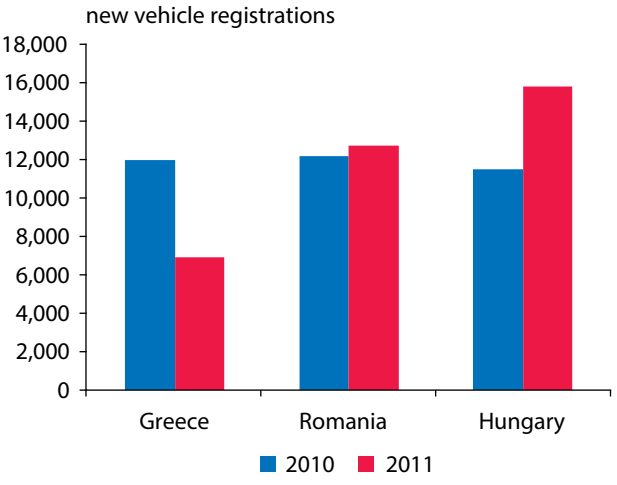
and old



Greece is lagging behind its neighbors in the number of light and commercial vehicles…



…and the gap worsened after the crisis



Note: N1, N2 and N3 refer to the EU general classification of vehicles used for the carriage of goods.
Source: Ministry of Infrastructure, Transport and Neworks; EU Transport (2012).

There are several possible reasons for the abundance of own-account operators:

- An over-regulation of trucking companies, requiring for instance that even the small pick-ups be licensed. This explanation is based on the big number of N1 trucks, representing 83 percent of the total "private use" trucks;
- Legislation that is more relaxed with "own account" licensing: the person requiring a license must prove that he needs a truck for his own business by showing a certain turnover. The license is given for the carriage of specific goods;
- Financial and other advantages for own-account operators, such as lower effective taxes on profit and streamlined contracts; and
- Stricter enforcement with public use, commercial licensed operators compared to "own-accounts."

The cost of operating a truck is high, partly due to inefficiencies in the trucking industry and partly due to high vehicle-operating costs. These make Greek road transport operators expensive and unable to compete with Turkish, Moldovan, Bulgarian, or Romanian competitors. They are subject to the following fees/charges:

- Twenty-six to thirty-six percent tax on revenue and twenty-three percent VAT, compared to ten percent tax on revenue and twenty percent VAT in Bulgaria, and a tax-free regime in Cyprus.
- One of the most expensive fuel prices in the EU: the excise only is 670 Euros (per 1000 liters), compared to 363 Euros (per1000 liters) in Bulgaria.
- Expensive insurance, with levels differentiated depending on the region where the company operates and on the type of transport. For example, for the same type of truck (40 tons, tractor and trailer) the trucker going on international routes pays 6,100 Euros per year, while the trucker carrying in Greece pays 1,800 Euros per year. Insurance rates can be 20 percent more expensive for Athens than for provinces, and they can be 40 percent cheaper for "own account" than for "hired" trucks.
- Road user charge: 925 Euros per truck per year while in Bulgaria it is 75 Euros per year.
- Cost for a driver (insurance and social contribution, wage not included) is 630 Euros per month, while in Bulgaria it is 300 Euros per truck per year.
- Creating a transport company (SA or Ltd) takes between three and eight months and costs 4,000 Euros, compared to Bulgaria where the same operation takes three hours and costs 600 Euros. This, combined with a cultural preference for self-employment creates no opportunity for economies of scale.
- In Greece, for each tractor unit only three trailer units can be registered. In practice, this limits unaccompanied unit transport and the use of intermodal transport.

Unfair competition adds to the trucker's lack of competitiveness:

- Informal competition from "own account" truckers that illegally transport commercially, due to lack of effective roadside enforcement; and
- Payment of transport services with post-dated checks became the rule, creating significant financial problems with a snowball effect: a trucker would provide the post-dated checks to his bank as collateral for a loan. The bank would approve the loan with an interest rate 50 percent higher than normal and if the bank could not cash the check when it was due it would file a case against the trucker.

The costs per kilometer of a Greek trucker operating internationally are almost the double of those of a French trucker (1 Euro/km against 0.52 Euros/km). According to interviews conducted in early 2013, the price/km often does not cover the operating costs, which indicates that Greek haulers have serious difficulties to maintain their profitability especially in international transport. Moreover, there is non-level playing field with Turkish trucking companies and from Greek companies established in other EU countries with a more favorable business environment (Bulgaria), as well as from nationals of other EU countries.

Barriers to the development of the road transport profession

A closed profession for more than three decades remains marred by inefficiencies. The privilege to carry goods belonged historically to the State, which passed this on to truckers by selling them a limited number of licenses every year. The license gave the right to carry goods internally and internationally. In 1970 the Government decided that the 33,000 licenses on the market were enough to perform the country's commercial transport of goods and stopped issuing additional licenses. The commercial road transport became a "closed profession." As a consequence, the selling price of the licenses rose continuously, and reached as much as 250,000 Euros per truck in 2010. A license was seen as a long-term investment and a secure source of income. At the same time,

this system protected the profession from stiff competition that new entrants would present, which translated into lack of incentives to innovate.

The transport of goods "for own account" was not subject to the same rules. As a consequence, there are more than 1.4 million vehicles (smaller or bigger trucks) that are supposed to carry only their own business products or raw materials. This leads to low capacity-utilization. It also means that there are low economies of scale and unregulated use of vehicles.

Finally, important barriers remain that hamper the development of a competitive trucking sector in Greece. The barriers touch upon many dimensions of the trucking industry. High levels of bureaucracy, steep security deposit requirements, lengthy procedures affect the secondary market for trucks, the issuance of new permits, and the transfer of licenses to new owners. In addition, the number of certificates required for selling a truck is relatively high. All required fees released by different authorities or even by independent bodies (see Box 4). While there is ample scope to cut bureaucracy and simplify procedures, the current regulations reduce the incentives for selling old trucks and transitioning to trucks that comply with higher environmental standards.

The standards that applicants must meet to accede to the profession—measures put in place as part of the recent liberalization—effectively mean no change will take place

BOX 4: Case study - Number of certificates needed for selling a second-hand truck in Greece (as of May 2013)

Certificate Required	Issuing Agency
• Certificate that road tax has been paid for last and current year.	TAX OFFICE
• Certificate that seller and buyer have settled all obligations against the responsible body insuring drivers and truckers.	SOCIAL SECURITY OFFICE
• Certificate that the vehicle in question has ABS system despite construction date.	INDEPENDENT MECHANICS WORKSHOP
• Certificate issued by local engineer that the vehicle is in accordance to the legal dimensions	INDEPENDENT ENGINEER
• Certificate from local weigh bridge regarding the tare weight of the vehicle.	LOCAL WEIGH BRIDGE
• Certificate from any local tachograph workshop that the tachograph is operating according to legislation.	INDEPENDENT TACHOGRAPH WORKSHOP
• Agreement arranged by a public notary regarding the transfer of number plate from one owner to the other.	NOTARY
• Certification from local transport ministry department that the certificate of ownership is valid and an original.	MINISTRY OF INFRASTRUCTURE, TRANSPORT AND NETWORKS
• Receipt that transfer taxes are settled.	TAX OFFICE
• Certificate from local technical control (MOT test) that the vehicle is technically suitable.	ANY TECHNICAL CONTROL STATION

for some time. Recognizing that the industry structure was distorted, the Greek government in 2010 decided to liberalize access to the profession. It decided to liberalize gradually. However, this process was slowed down, in agreement with the so-called "troika" of the European Central Bank, the European Commission and the International Monetary Fund. There were two main motivations for a gradual liberalization. First, there was the willingness to ease the transition for owners of old licenses by allowing them more time to adjust (as it happened in France in the 1980s); and second, the intention to impose an entry selection criterion that would allow to keep out of the sector the so-called "necessity entrepreneurs," (e.g., players attracted to the sector because of lack of opportunities elsewhere). Accordingly, the measures included a transition period allowing companies to transfer licenses until 2022. New candidates (non-SA companies or individuals) were required to meet higher financial requirements than the levels foreseen by the EU-*Acquis*. For example, 18,000 Euros would be needed for the first truck and 9,000 Euros for each subsequent truck. This is compared with 9,000 Euros and 5,000 Euros as foreseen in the EU-*Acquis* and applied in Greece only to SA companies. These amounts are to be deposited in the Deposits and Loans Fund and are only returned when the business ceases to operate and permits are returned to the Ministry. A bank guarantee of 5,000 Euros per truck is also foreseen under the new regime. A case in point is the following: Despite the introduction of new trucking licensing requirements, some trucks have kept the old licenses to avoid meeting the higher requirements of the new licenses.

While the fragmentation of the industry into small truck operators may have been useful in providing more flexibility in the past, it is no longer an industry structure that can support a modern logistics system. The title-transfer for public use trucks in circulation is a compromise between an instant opening and the transition measures described above. As of today—2.5 years after the reforms—there are almost no new entrants on the market, which may be explained partly by the subdued economic situation of Greece and partly by the strict requirements for new entrants. Nevertheless, on a more positive note, recently there has been a sizeable decrease in the value of licenses on the secondary market, which may catalyze consolidation of the trucking industry and its transformation into a modern fleet.

Additional measures, however, could have facilitated and accelerated the transition to the new regime. Some of those applied in other EU countries—such as remuneration, tax-incentives, funding for upgrading a truck fleet—would have facilitated a speedier transition to the new regulatory system, but are currently not possible under Greece's fiscal constraints.

Enforcement of regulations in the trucking sector

Enhancing road transport enforcement practices in Greece is a necessary pre-condition to improving the quality of logistics services in the country as it improves timeliness, and reduces uncertainty and risks for the users of the logistics supply chains. Better transport enforcement also represents an important public good to the entire EU, given that Greece is a geographically important and sensitive entry point from third countries to the EU.

While most Greek legislation on road transport enforcement is compliant with the EU Aquis, provisions and regulations are scattered around a large number of laws, ministerial decrees and circulars (see Appendix 3, Table A3.2). The current fragmentation of the regulatory setting creates a sub-optimal economic environment characterized by uncertainty, obstacles, poor compliance, perverse incentives, and a reduced ability to attract foreign investors and clients. These are deterred by the information costs of assessing how rules and practices in Greece compare to those found elsewhere, and in particular in other EU countries. The Greek authorities are well aware of this problem and indeed the Ministry of Infrastructure, Transport and Networks (MoIT) is leading an effort of drafting a new framework law to consolidate and reorganize the legislation on transport enforcement in one comprehensive law, while also improving the problematic areas. An important objective of this effort is to simplify and make more transparent the current regulations defining roadside control for freight while also eliminating counterproductive specificities in the major laws regulating this activity.

A main problem in enforcing road transport regulations is the lack of collaboration between enforcement agencies. Roadside enforcement is regulated by a variety of agencies and bodies: the regions, traffic police, port police, financial police (SDOE), and customs authorities. All these have policymaking and regulatory powers, but coordinate little with each other. Each of them disseminates transport regulations and advises on the interpretation and application of the law. They are affiliated with different ministries, their competence is sometimes limited to certain geographical areas (e.g., port police to port areas and customs mostly to customs premises), but in most cases it is overlapping (i.e., regions and traffic police both are competent over all public

roads and spaces used for public traffic), while SDOE can intervene everywhere (see Appendix 3, Table A3.1 for details). An old-fashioned management style, with hierarchical working practices, mandates with small space to collaborate with other organizations, and lack of space for initiatives in all enforcement agencies hinder the possibility of creating synergies and collaboration between agencies.

Enforcement of transport laws is applied, as a rule, by teams composed of representatives of Traffic Police and Regional Units. Though no systematic or reliable statistics exist, an estimated three-quarters of all roadside checks of heavy goods vehicles (HGV) in Greece are conducted by the police authorities. The remaining quarter of the roadside checks of HGV's are conducted by regional government teams. Some checks are also made by authorities at ports, such as customs under the Ministry of Finance or Port Police, which is under the Ministry of Shipping. Little nation-wide coordination across agencies and almost no training for the enforcing staff appear to take place.

Enforcement of transport laws is therefore inconsistent. This is the result not only of the above mentioned regulatory fragmentation and lack of coordination, but also of practical difficulties and lack of incentives on the ground. According to the private sector, some enforcers lack comprehensive knowledge of the legislation, procedures, and documents they are supposed to check, as well as motivation to perform intensive checks. Moreover, the private sector perceives an inequity in the treatment of domestic and foreign vehicles. Enforcing officers are perceived as being more tolerant of possible violations when checking foreign trucks at the border. For example, comparing invoices with documents for the International Carriage of Goods by Road (CMR) and transit documents is apparently not a common practice, leading to distortions in the market via triangular transport without proper permits, and in many cases permits that would not be allowed. Similarly, enforcement of the rule of "max 200 liters fuel" is not carried out, leading to unfair competition by foreign truckers buying their fuel from less expensive places abroad. It is likely that corruption exists, but this does not seem to be the main cause for lenient enforcement. The practical problems in checking the foreign trucks include: i) language barriers and the inability to check documentation that has not been translated, including its authenticity, ii) legally a driver that has been fined has five days to ask for appeal. While waiting for appeal he can continue to circulate with no obligation to pay the fine. In conclusion the main areas identified by Greek stakeholders as needing improvement of enforcement include:

- Gaps in the procedure for verifying infringements and collecting fines.
- Inability to collect fines from foreign defaulters.
- Lack of a system for certified training of enforcers.
- Coordination problems between control authorities in the regions and lack of a national control strategy.
- Need for a codification and simplification of transport regulations and definition of clearer guidelines for Competent Authorities' enforcement units and staff.

Currently, the main problems of enforcement of the trucking sectors seem to be systemic but it could be mitigated by a collaborative agenda across enforcing agencies: A severe understaffing of the Road Freight Directorate; lack of financial resources to devote to training activities; counterproductive specificities in the major laws regulating the sector; and disincentives for the teams composed of representatives of Traffic Police and Regional Units to perform field activities are all problems that run through the system of public administration. Some of the problems are related to recent reductions in government spending. For one, the joint teams were not compensated for their field activities through the summer of 2013, due to the spending cuts required by the fiscal consolidation of the public sector. Even the Road Freight Directorate is severely understaffed (four staff members only) and possibilities of hiring or permanently transferring staff to the civil service are extremely limited. According to the 1/10 rule, for every ten people leaving the civil service, only one new staff member can be hired.

Lack of proper incentives may also be an important reason for inconsistent enforcement. The level of fines is comparatively high, and many of these fines end up not being paid by the truck drivers, providing further disincentives to apply fines at all. As previously mentioned, with foreign traffic, the enforcement officers interviewed complained about obstacles ranging from "language barriers" to feelings of "resignation" due to the fact that the procedures are complicated and even more prone to failure than when dealing with trucks having domestic number plates.

Rail transport

Rail is an important and competitive mode of transport for medium- to long-term shipping and it is essential to enhance Greece's chances to become a gateway to the rest of the EU. The importance of having an efficient and freight-friendly rail system in Greece goes beyond the provision of transport services. The availability of an environ-

ment-friendly transport mode enhances the overall competiveness of Greece, as a gateway for Eastern and Central Europe. This is particularly the case as modern logistics services increasingly move to green modes of transport. In addition, this trend is particularly strong in Europe, with innovations in green transport attracting financial support.

Greece has made great strides in reforming its state-owned railway company. In November 2012, the Government restructured the railways by separating activities in several entities: TRAINOSE (passenger and freight traffic), Hellenic Railways Organization or OSE (infrastructure manager), Rolling Stock Maintenance SA or ROSCO (maintenance unit), and GAIOSE (real estate). It also transferred the rolling stock activities from the OSE group to the state (Cabinet Act 237/A/5-12-2012), and restricted OSE's competencies to non-commercial activities only. In 2013, fully EU-compliant regulations for public service are being adopted, the powers of the regulatory authority RAS are being extended, and the privatization of TRAINOSE and ROSCO are well underway (European Commission, 2013). Privatization of TRAINOSE is expected to help develop the use of rail for freight transport and multimodality, while the privatization of ROSCO is expected to help improve the efficiency of rolling stock maintenance services while reducing costs. Overall, this would improve the competitiveness of the Greek railway system.[6]

In recent years, TRAINOSE has been undergoing a significant reform process, but improvements in profitability emerged mainly from cutting costs. The railway transport service in Greece is provided by "TRAINOSE," a state-owned company. Other companies' access to railway infrastructure became possible in July 1991,[7] and the liberalization of rail freight transport has been applied in principle since 2012. While the quality of Greece's rail infrastructure caused the country to slide from 57 to 69 in the Global Competitiveness Report (World Economic Forum 2013) rankings between 2009 and 2013, there have been improvements to the sector. With the backing of the government, TRAINOSE succeeded in cutting costs and erasing an operating loss of 180 million Euros in 2010.[8]

TRAINOSE has recently attracted new business, including a much-touted, soon-to-be-signed agreement for block train service carrying components for Hewlett-Packard (HP) twice a week to the Czech Republic. This deal calls for transport of 20,000 TEUs annually and reinforces the idea of Greece as a potential trans-shipment gateway that can offer competitive multimodal transport services. Moreover, the private sector is interested in using train transport to move heavy goods domestically.

While further progress in these reforms will help it integrate more smoothly with plans for an EU-wide rail system, the railroad is still marginally used for national and international freight transport. The container volumes transported through rail in Greece are still modest compared to the main ports in Europe (Figure 2.3), and the actual transit flows of containers through Greece towards Central Europe or parts of the Balkans are still relatively small and experimental. Currently, most freight traffic is bulk cargo for export or transit. However, in part because of a recent rail connection to the country's container port, Greece could face demand for 100,000 TEU[9] by 2015. Currently the rail system does not transport containerized cargo.

In conclusion, despite the substantial improvements in the sector, a number of problematic issues remain. These include:

- Users lamented lack of reliability and commercial orientation to freight customers, despite very significant improvement and progressive change of mentality recently. The railway system was developed primarily to handle passenger traffic. Loading and unloading freight in facilities that have not been properly designed for this function result in considerable difficulties and delays. Several potentially large customers complained about lack of a

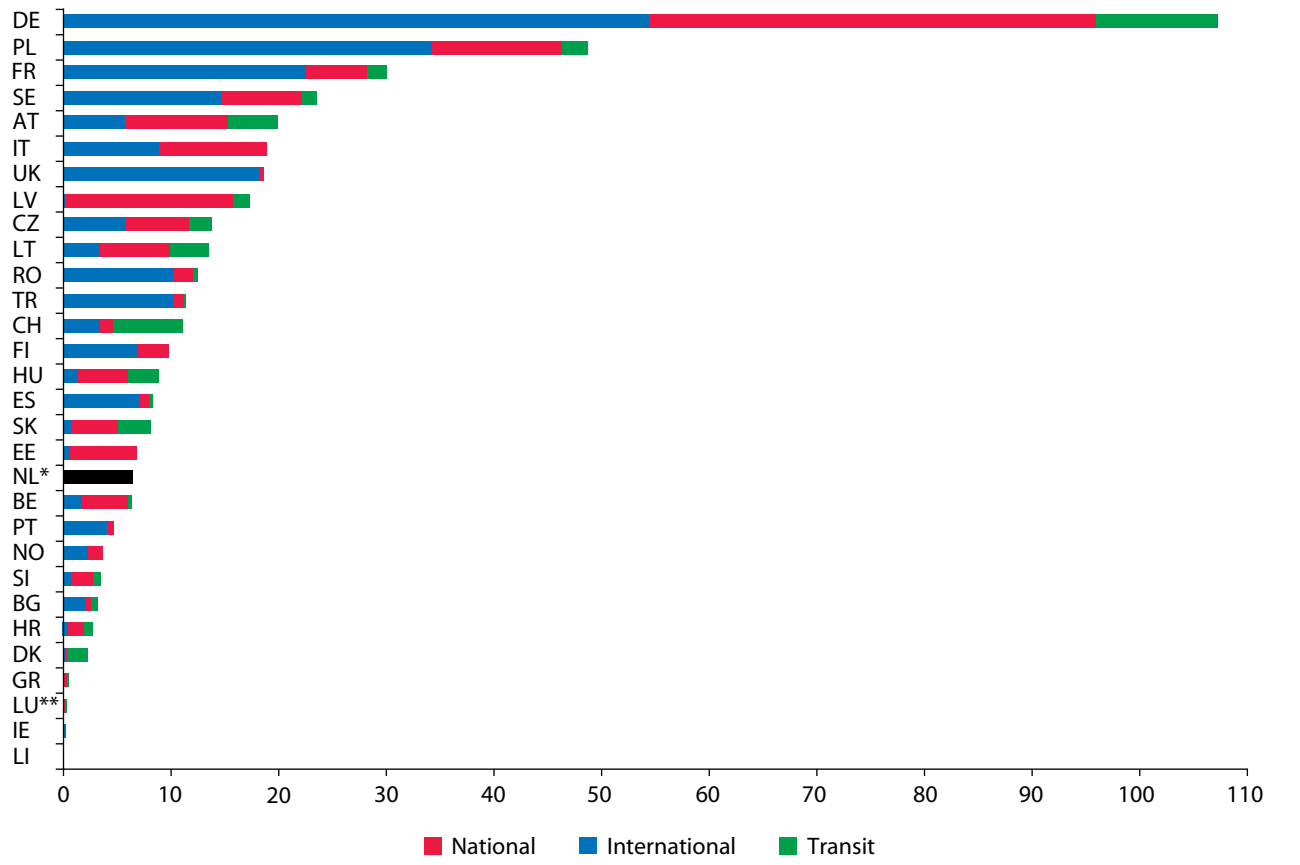
6 The government expects that one additional feature of the privatization plan will help ensure third-party use of the rail system. Namely, transferring all the rolling stock from OSE to the state will allow to lease it on market conditions (through tendering procedures). This means that any party is now able to participate and lease the rolling stock managed by the state, eliminating any advantage for the incumbent provider of transport services TRAINOSE. Both the establishment of ROSCO and the handing over of rolling stock to the state are Memorandum of Understanding obligations and part of the DG COMP state aid files.

7 After the adoption of Council Directive 91/440 with the 324/96 Presidential Decree.

8 In achieving full cost-recovery of operations in 2012, TRAINOSE developed a pragmatic business strategy that led to the cancellation of unprofitable services (about one-third of its services), including international passenger services. Other measures adopted included the renegotiation of potentially profitable services with customers; setting its tariffs using a yield management system; and the renegotiation of its union agreements. TRAINOSE received state support in reducing its staff by 620 employees (a little less than one third of its staff) and transferring its debts. These changes were part of TRAINOSE's new Business Plan and were linked to the restructuring of the Hellenic Railways Organisation (OSE), the railroad's infrastructure manager.

9 Twenty-foot equivalent units, a measure of a container ship's cargo carrying capacity.

FIGURE 2.3: **Greece (GR) ranks low against other European countries in rail transport of goods**



*NL: Only the total transport of the country is presented. The breakdown between national and transit transport is not available due to confidentiality.
**LU: 2009 data.
Note: In billions of ton-kilometers. Source: EUROSTAT, 2010 data.

positive reception to proposed ideas for customized solutions (including dedicated full trains). As a result, rail is underused for freight. Such issues may become less problematic if the ongoing privatization is well designed and succeeds in creating the conditions for greater attention to the needs of freight customers.

- Rail transport is also underused for freight because expansion, rehabilitation and electrification plans (which are the responsibility of OSE) are not being developed in consultation with operators.[10] The latter are likely to have a good sense of the markets and the nature of demand. The practice of consultation with users, when investment plans are being developed or implemented, may help foster a more freight-friendly rail system. In general more clarity in the planning process would be useful.
- State ownership of operations may be inhibiting expansion. TRAINOSE, as a state company, does not have the same freedom that a private operator would have. For example, a private operator would have the right to invoke contractual penalty clauses with the state owner of the infrastructure if operating at half the posted speed due to the poor quality of tracks in some sections.
- Dependency on OSE for obtaining carriage rights in international traffic with other railway operators is creating problems. From late 2012 until March 2013, OSE was in a legal limbo due to problems of completing its Board, which has been unable to pursue and sign necessary contracts for usage of rail infrastructure in border crossing traffic.

10 On the other hand, the legal requirement in the arrangement is that no interconnection between OSE, the infrastructure manager, and TRAINOSE, the rail operator should take place, as the government is pointing out.

Ferry shipping

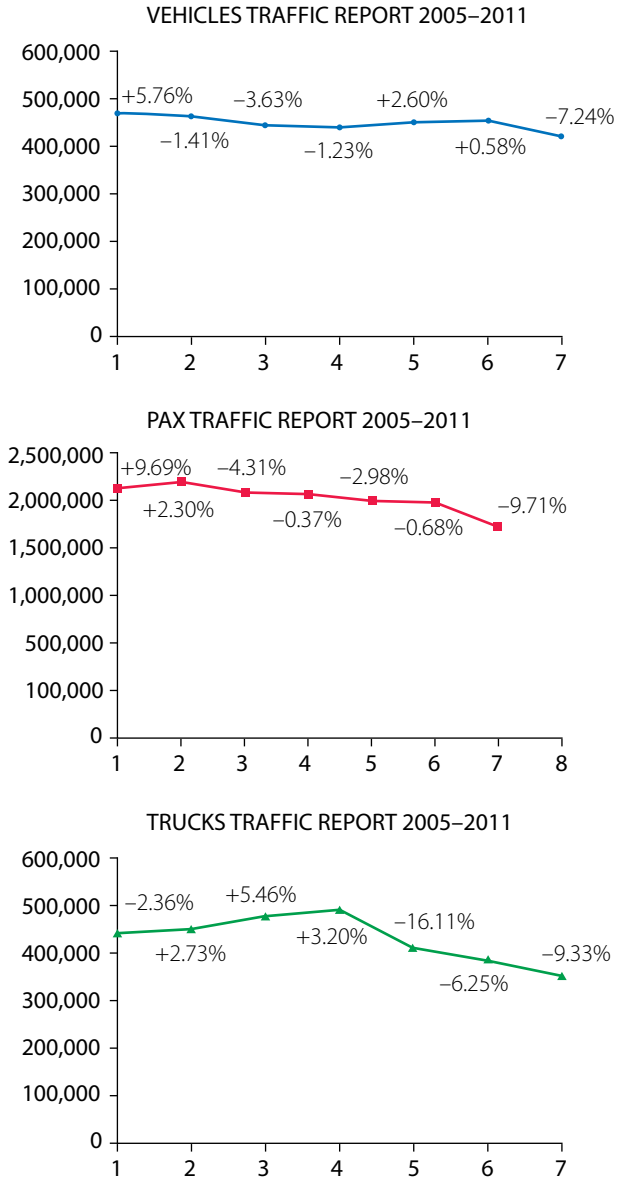
Ferry operations provide a crucial service for domestic tourism and passenger transport, but also for international trade with Italy, as well as with Turkey and other countries beyond the EU. Coastal and short-sea shipping—mainly ferries carrying passengers, cars and trucks—is crucial to Greece and an important part of its logistics. Ferries carry trucks loaded with imports, exports and goods transiting Greece to reach other destinations in the EU or merchandise destined to and originating from the Greek islands. Despite being subject to regulatory restrictions for both freight and passenger transport, the ferry market has traditionally had a number of operators, and competition has been intense, including between Greek and foreign operators. In recent years, economic hardship has increased pressure on ferry lines and brought to the surface questions about international competition.

Greek ferry operations for freight are mostly destined for Italy. Ferry operations between Greece and other EU countries are regulated by the Schengen agreements, so border controls are minimal. Security is a primary concern, but checks are not a major burden. The main constraint remains the liability of the trucking companies in case the truck is caught with illegal immigrants in the cargo area. Approximately 2,000 trucks are stopped at Patras or in Italy every year, endangering the reliability of the transport route. The government is also spending about 93–94 million euros per year in subsidies to maintain shipping connections to the islands, and is therefore also looking for ways to increase cost effectiveness and serve the islands in the best possible manner.

Over the past few years, the overall demand in the Adriatic Sea market has been declining (Figure 2.4). As a result, consolidation increased in the market, and several small operators have been squeezed out of business and have joined operations. The economic conditions have increased pressure on the industry's three main shipping lines—Minoan (Grimaldi), Superfast Ferries (Attica Group) and ANEK lines (Figure 2.5), which together account for 85 percent of traffic calling at Greek ports—to cut costs and increase efficiency (Figure 2.6). It has also increased tension between Grimaldi, an Italian company, and the two Greek operators (Figure 2.7).

The Greek Attica Group has lodged an official complaint with the European Commission arguing that Grimaldi is unfairly benefiting from state subsidies.[11] While Grimaldi, currently the largest ferry shipping operator in Europe, does benefit from some tax provisions applied to seafarers, it is following a practice frequently used by other European

FIGURE 2.4: **A declining trend in ferry shipping**
Total Adriatic Sea market by a) vehicles (passenger cars and buses); b) passengers; and c) trucks in 2005 (1) to 2011 (7)



Source: EUROSTAT.

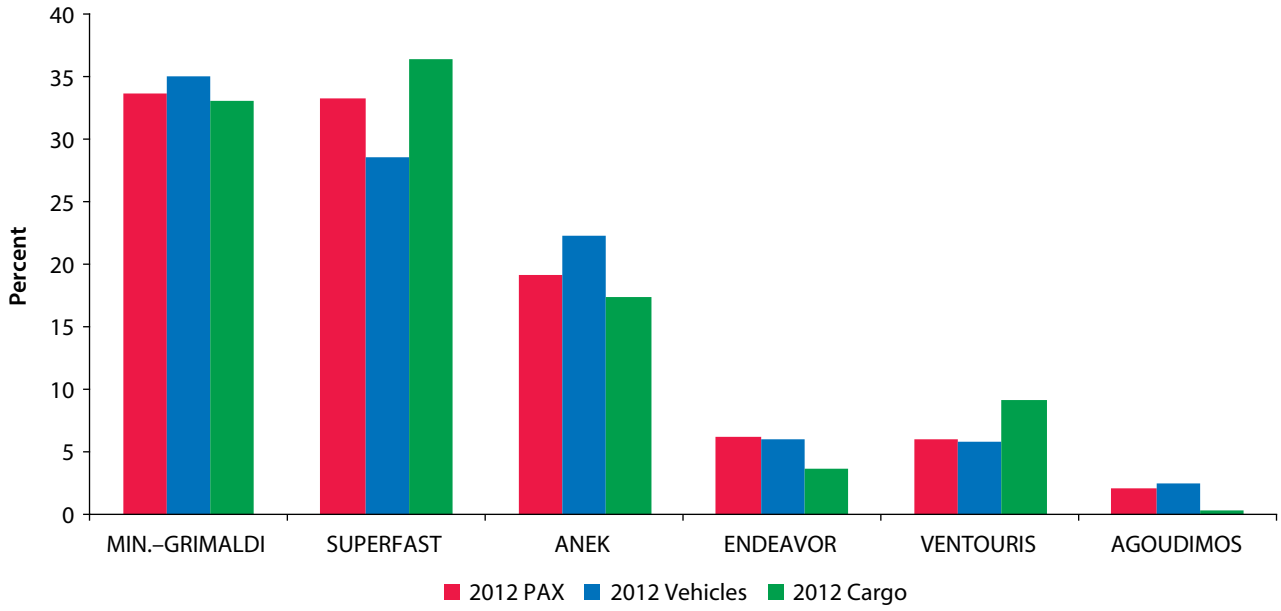
11 Shipping Herald, October 30, 2012. (http://www.shippingherald.com/Admin/ArticleDetail/ArticleDetailsShippingNews/tabid/98/ArticleID/7132/Attica-files-complaint-to-EU-Commission-against-Grimaldi.aspx).

FIGURE 2.5: **The Adriatic-Aegean ferry routes in May 2013**
(from left to right: Minoan Lines, SuperFast ferries and ANEK Lines)

Joint operation by Superfast and ANEK on the Ancona-Igoumenitsa-Patras route, and Piraeus-Iraklion routes

Source: Attica Group.

FIGURE 2.6: **The Adriatic-Aegean ferry market**
(market shares by operators in January–November 2012)

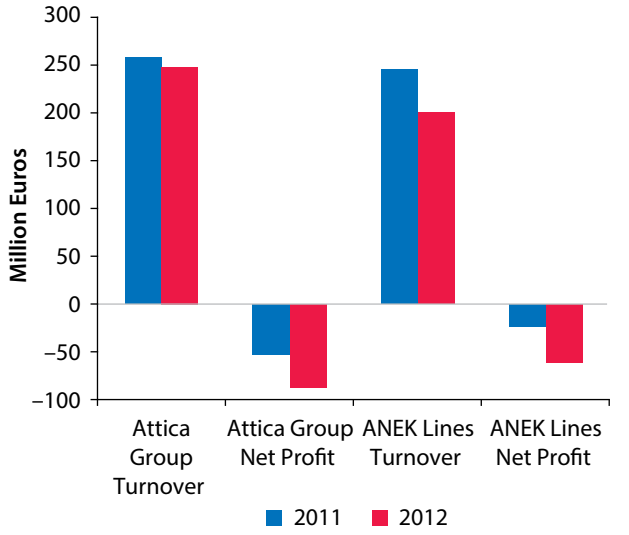


Source: Attica Group.

firms. The subsidies include the remuneration of seafarers' taxes and social security fees to ship owners—both practices that are in line with EU regulations. The inquiry before the Commission is still pending.

A second issue in the dispute is the staffing levels on Greek ships. Compared with Greek ships, the Italian shipping operator has substantially smaller, but technically sufficient, crews on their vessels. Though the Greek ships are similar to those used by the Italians, the Greek crews are larger and all-Greek due to trade union requirements. Hence, the root problem and the solutions to enhancing the competitiveness of the Greek shipping operators seem to lie in modifying the Greek manning levels, requirements, and rules. This is indeed under way. The Government has recently reviewed the legal framework of the domestic ferry industry, with particular attention to increasing flexibility of the manning requirements and of routing. Moreover, a Ministerial Circular was in preparation in June indicating that individual labor contracts can be negotiated freely, once the collective agreement has expired.

FIGURE 2.7: **Tight competition between Attica Group (owner of Superfast ferries) and ANEK Lines S.A.**



Source: Annual reports, Attica Group.

Ports

Current port modernization projects and the efforts to move to landlord port models in Greece's two largest ports, Piraeus and Thessaloniki, are welcome initiatives.

Piraeus hosts a trans-shipment activity not serving the local market directly, and Thessaloniki plays a natural gateway role for the regional economies (Bulgaria, Romania, and the Former Yugoslavian Republic of Macedonia- FYROM). Container volumes for the local markets in Piraeus and Thessaloniki are comparable (300–400 thousands TEUs), and dry bulk volumes are higher in Thessaloniki, which has a good railway connection to the hinterland and a strategic positioning near the border. In addition, over 1.5 million TEUs go through Piraeus as trans-shipment cargo on its way to other ports. As Thessaloniki is essentially on the same feeder routes on the Aegean Sea as Piraeus or Izmir, it serves as a natural European gateway.

A recently completed railway connection between Piraeus and Thriasio will increase multi-modal container traffic going through the Piraeus container terminal. This more efficient connection between land and sea has the potential to attract supply-chain operators and others in manufacturing.

Connecting private ports to a public network is not easy. Some large scale activities, such as extractive industries, need their own dedicated facilities in specific locations. As in other areas, the tendency for overregulation and administrative overlaps takes its toll on the timeliness and costs of connecting private infrastructure to a public network. For instance, the revamping of a pier at a private port took three separate authorizations (coastguard, environment, and local municipality) and lasted over one year.

Logistics services

Efficient and reliable logistics services are essential to the effective distribution of goods in a market. Companies in this sector transport goods, keep track of storage space and operate storage warehouses. They also carry out ancillary services—such as insurance and inventory management—that are vital to making goods regularly available to consumers. Typically, companies that produce goods outsource logistics. For a business in a modernized logistics scenario, outsourced logistics account for 80–90 percent of all transport expenditures. In Greece, however that number stands at only about 20 percent. Improvements to logistics outsourcing could make distribution and supply chains more reliable while keeping costs low.

Fragmentation and excessive regulation of the logistics services market have been detrimental to a wide range of businesses that transport and distribute goods—both domestically and internationally. The fragmentation has hindered efforts to develop modern warehousing, to integrate services, to speed transactions, and to benefit from a more intensive use of information technology. This condition, which has led to the proliferation of small or informal logistics-providers, has limited the ability of Greek businesses to focus on their core products and the services they perform best. It has also limited the number of enterprises that are in a position to benefit from modern supply chains.

Third-party logistics providers (3PLs)

A lack of clarity in both regulations and the authorities responsible for enforcing them hurts efficiency in the logistics sector. The logistics provider is not given a comprehensive and exhaustive list of regulations to comply with and documents to produce (see Box 3). There also is lack of clarity about which department or agency in government is responsible for specific policy areas. The confusion translates into higher information costs and sub-optimal private economic decisions. This requires the logistics operators to produce a rather high number of certificates even for sim-

ple transactions, such as selling a truck. It also leaves a wide berth for interpretation. For example, the distinction between commercial and own-account operation is not always clear; and the use of own-account vehicles is reportedly rather widespread in commercial or in "for hire" transport.

Over-regulation in some areas coexists with gaps in regulation in other areas, and old regulation sometimes coexists with new regulation. New regulations are a step forward, but need additional support measures and coherence with the wider regulatory environment to achieve the targeted reforms. For example, the new industrial legislation (3982/2011) streamlined and simplified the procedures to open warehouses. However, warehouses can also be licensed under different legislation (i.e., Presidential Decree 79/2004 or according to municipal regulations, for small warehouses which are part of a retail activity). Improvements and innovations of Law 3982/2011 have not been applied to other types of legislation and grey areas of application remain. For example, it is not clear if a 3PL equipped with packaging machinery should license its warehouses for operation under law 3982/2011 for industrial activities, under Presidential Decree 79/2004, or under both regulatory schemes. The uncertainty in the law leaves great scope for interpretation by authorities and public officers.

While the current contraction of economic activity brought a rationalization of distribution channels in the retail sector and forced service-providers to improve their operations significantly, these efforts of the market operators to improve business practices risk being temporary unless the regulatory environment also improves. As the sector continues to squeeze out inefficiencies, the use of third-party logistics service-providers for both transport and warehousing is increasing rapidly, and firms are forced to focus on their core activities in order to survive. On the demand side, the collapse of consumer demand has led to a consolidation in the retail sector, with only sufficiently large and efficient firms able to survive. The result is the rationalization of distribution channels through strategic placement of distribution centers along the supply chains. Turning to the supply-side of logistics services, the economic downturn has pushed efficient third-party logistics operators to seek ways to enlarge their customer base to other (smaller) users and to introduce process innovations. The lack of liquidity resulting from the financial crisis has forced a dramatic reduction in inventory while the percentage of direct deliveries has increased. While the recession has led to substantially higher unit costs for distributing, and picking and packing (which require more manual work per unit sold), it has resulted in a diversification of operators' customer bases. On process innovation, operators of larger warehouses have built automated warehouse systems (AWS), allowing for more efficient picking of orders and management of labor. Although point of sale (POS) data remains limited, most suppliers have improved their forecasting methods to avoid over-orders. At the same time, they have adopted a dual strategy of maximizing loads to reduce transport costs: by adopting a mix of delivery frequencies to meet the needs of retailers trying to limit their stock they avoided adding significantly to the costs for transport. Such market-driven improvements risk being undone if demand picks up before regulatory reforms locks in the efficiency gains achieved.

Regulations inhibit logistics-sector performance. To date, the sector continues to be hindered by regulations that require frequent reporting on physical activities and on the use of labor. Regulations also restrict efforts to introduce more flexible allocation of labor and assets, including co-location of storage, and mixing loads in trucks. They also place impediments on the transfer of assets from less efficient enterprises to more efficient ones.

The problems fall in the following categories:

1. The licensing and permitting system to open and operate a warehouse.
2. Technical standards applied to warehouses.
3. Safety measures.
4. Relationships with local authorities: land planning and local fees and taxes.
5. The opportunity to cluster logistics into logistics zones.
6. The problem of the legacy of logistics activities with non-compliant facilities.
7. The case of bonded warehouses.

Most large 3PLs that are based in Greece enter international partnerships to operate logistics bases to distribute brands in Eastern and Central Europe. Lower rates and improvements to ports and their connectivity to land infrastructure are beginning to make Greece a true gateway to Europe.

Warehousing

Warehouses are no longer just simple storage sites. Warehousing is indispensable for companies to balance supply and demand on the market place. Their geographical location, access to facilities and transport networks, and construction are strategic elements that have important implications for

firm performance. Efficient warehousing decreases costs, increases reliability, and improves customer service. Without storage, companies cannot manage when and where to move goods along the supply chain. Warehousing is also a commercial service provision in its own right and allows more efficient consolidation and storage of inventory. This is especially important for companies that are part of global production networks and those that participate in e-commerce and sell to consumers directly from a warehouse.

Reflecting the growing importance of logistics, warehouses have evolved from simple storage sites into staging platforms for a multitude of functions. They can be bigger than 100,000 square meters. These platforms allow the handling of a great diversity of products simultaneously and the profitable management of the complex flows of diverse goods. Such platforms allow this by covering—with increasingly sophisticated methods and machinery—several functions of the distribution chain, including preparation, conditioning, storage, loading, unloading, and transport, as well as the management of the distribution activity itself.

Licensing procedures to open and operate a warehouse are conceptually similar to other EU countries, but coordination among intervening agencies lags and there is scope for streamlining and simplifying procedures. Licenses for opening and operating a warehouse can be obtained through three different types of legislation: Law 3982/2011 for industrial activities, Presidential Decree 79/2004 for 3PL activity and, in the case of warehouses attached to a retail point, municipal regulations. Procedures can be cumbersome, the attribution of competences can be ambiguous and best practices introduced in one type of legislation do not necessarily extend to other types of legislation (see Box 5).

The steps needed to open a warehouse are broadly similar to those needed to open a manufacturing plant (Figure 2.8 summarizes them schematically). They are in line with the practice found in other countries in Europe, with as many safety concerns. Procedures are implemented by local authorities at the regional and municipal levels.

Companies are concerned with the lack of consistency and coordination among intervening agencies. They also complain about the time it typically takes to get clearance from all individual agencies to get a permit and the considerable uncertainty of the duration of the process, overall. New regulations and laws indicate time limits, but lack of staffing means that authorities are not able to comply with the requirements in the law For example, the new legislation indicates that the authorities should respond to a request for a building permit within three days, but effectively it can take up to nine months. There are essentially three phases for this process:

a. **Pre-permit procedures:** The investor must deal with preliminary authorizations that may influence the design of the project. Procedures regarding archeological clearance and forestry are not unique to Greece, but some procedures are cumbersome (such as the process of requiring separate clearance from the air force or civil aviation on the heights of the building).
b. **Permits** with two main steps in sequence (though other procedures, specific to related components of the projects, may be required, such as road or rail connections, water pipes, generators, etc.):
    i. Environmental authorization given by the regional authorities on the basis of an impact study and for large or high impact establishments by the Ministry of Environment.
    ii. Establishment license, given by the regional authorities.
    iii. Building permit, which also requires providing certificates or information from specialized services such as the road department (national, regional or municipal depending on the category of the road), fire department, electricity company, etc. The building permit is provided by municipal or other local authority in charge, based on urban and regional zoning.
c. **Operating clearances,** which are essentially two: i) certificate from the fire brigade, and ii) operating license from the regional authorities.

The existence of all these different steps is justified but the time delays in the process of obtaining all the necessary permits could be reduced and the process streamlined. The sequence is logical and is similar in most EU countries. The problems are two. First, there are important time delays in obtaining the permissions envisaged in each step. Obtaining the pre-permits, and in particular the forestry authorization, appears to be the most problematic and is criticized. In particular, it appears excessive and outdated. Second, there are a number of redundancies and overlaps on the requirements for different steps. This is particularly the case for requirements for the establishment license. It duplicates some of the procedures already necessary for obtaining the pre-permits and the environmental authorization and slows down the process of licensing.

BOX 5: Examples of the sequence of administrative processes for warehouses under licensing for industrial activities and for licensing for freight-forwarding activities

Example 1: The first example describes the administrative steps for licensing a warehouse in the Veotia regional unit. This example has been provided by a company for an investment, which was licensed in 2010 under Law 3325/2005. While scope for simplification and rationalization remains, the major structural reforms implemented since 2010 have already brought about important improvements, which will be perceived by the market once demand picks up again. This law has been now replaced by Law 3982/2011, which has simplified the procedures for Steps 3 and 5. Moreover, the example indicates a number of approvals to be carried out by the prefecture. However, the Kallikratis Plan (Law 3852/2010) has brought about a major overhaul of the administrative structure of the Hellenic Republic, which has replaced prefectures with regions and regional units as of January 1, 2011. Finally, it should also be noted that some of the steps described below are specific to the location (e.g., Air Force approval due to proximity to the Athens-Lamia highway) or the design (connection to the railways).

1. Permission from Archaeological department. There had to be a separate preliminary and a final approval (request for the final approval sent on 15-07-2008 and approval received on 16-07-2008).
2. Permission from Forestry department. There had to be a separate preliminary and a Final approval (request sent on 25-08-2005 and approval received on 12-12-2005).
3. Preliminary study about environmental impacts, approved by various departments and ministries, such as departments of Agriculture, Environment, Ministry of Development and Competitiveness, etc. Had to be approved by: Ministry of Environment—Special Environmental Department (ΥΠΕΚΑ-ΕΥΠΕ), Ministry of Development and Competitiveness—Environmental Department (Υπουργείο Ανάπτυξης—Διεύθυνση Χωροθεσίας και Περιβάλλοντος), Ministry of Environment—Country Planning Department (ΥΠΕΚΑ—Διεύθυνση Χωροταξίας), Prefecture of Viotia Urban Planning and Environment Department (Δ/νση Πολεοδομίας and Περ/ντος Νομαρχιακής Αυτ/σης Βοιωτίας), Prefecture of Viotia Agricultural Department (Δ/νση Γεωργίας Νομαρχιακής Αυτ/σης Βοιωτίας) (request sent on 04-04-2006 and approval received on 28-06-2006).
4. Building height approval by Hellenic Air force (request sent on 10-11-2006 and approval received on 20-12-2006).
5. Approval of Environmental Study by Hellenic Ministry for the Environment, Physical Planning and Public Works. Only valid for 5 years, and needs constant renewal. Had to be approved by: Ministry of Environment—Special Environmental Department (ΥΠΕΚΑ-ΕΥΠΕ), Ministry of Development and Competitiveness—Environmental Department (Υπουργείο Ανάπτυξης—Διεύθυνση Χωροθεσίας και Περιβάλλοντος), Ministry of Environment—Country Planning Department (ΥΠΕΚΑ—Διεύθυνση Χωροταξίας), Prefecture of Viotia County Council (Νομαρχιακό Συμβούλιο Βοιωτίας) (request sent on 08-08-2006 and approval received on 26-01-2007).
6. Approval of connection with service road of Athens-Lamia National Highway. (request sent on 15-11-2006 and approval received on 02-03-2007).
7. Permission for Building and Mechanical installation by specific department of the Prefecture. (request sent on 29-11-2006 and approval received on 05-03-2007).
8. Building permission from Urban Planning (request sent on 29-03-2007 and approval received on 03-07-2007).
9. Permission for installation of generator by specific industry department of the Prefecture (request sent on 22-10-2007 and approval received on 14-04-2008).
10. Approval of Environmental Study for rainwater pipe line (request sent on 17-09-2007 and approval still pending).
11. Operating license by specific department of the Prefecture (request sent on 26-05-2008 and approval received on 31-10-2008).
12. Active-Fire protection certificate from local Fire Brigade.

Continued on next page

BOX 5: ***Continued***

13. Application for inclusion of the building in the derogation procedure of volume of fire resistant departments. Had to be approved by: Prefecture of Viotia Development Department, Industrial Section (Δ/νση Ανάπτυξης, Τμήμα Βιομηχανίας Νομαρχιακής Αυτ/σης Βοιωτίας) (request sent on 17-05-2007 and was rejected on 03-09-2007).

Example 2: The second example has been provided by a company for an investment in the Aspropyrgos area which was licensed under Presidential Decree 79/2004. The investor indicated that he had to follow the same procedures listed under Example 1, except for steps 4, 6, 7,10 and 11. The process of licensing lasted 18 months from beginning to end. This law is still in force and requires simplification and rationalization.

Solutions suggested by the Greek business sector to simplify licensing procedures:

- Creation of a Single Point of Access and Authorization for required permissions and approvals.
- Commitment of state to examine licenses at specific time schedule with automatic issuance, and indemnity if the deadline is missed.

A main source of delays seems therefore to be due to problems of organization within and across licensing agencies. Companies have to deal separately with the agencies that provide certificates with little consistency. This is called a certifications based approach. When all administrative certificates are available, the investor can get the necessary clearance from the national, regional and municipal authorities. Environmental and safety concerns naturally involve many interests and agencies, but these are coordinated by the Ministry of Environment. However, approaches based on administrative certificates risk creating delays, duplications and sometimes inconsistencies (e.g., between establishment license, environmental impact and building permit assessments).

The spatial planning regime, the difficulties in obtaining certificates from the forestry and archeological authorities and various restrictions relative to land use are perceived as most lengthy and problematic. There are nine different categories of land use that range from residential, to urban and encompass industrial use with low environmental impact, with high environmental impact, commercial, etc. Moreover, part of the Greek territory is unclassified. This creates ambiguity as to the possible uses of specific plots of land. Moreover, according to operators, forestry certificates are difficult to obtain within reasonable time frames. Linked to the obsolescence of land planning in Greece, they are needed also for areas that are clearly urban or industrial, based on land mappings that date back to several decades ago. Forestry may also be called into cause for licensing issues pertaining to the green space between the lanes of a main street in city center Athens. Finally, while the need for archeological assessments is undisputed, it can be also very cumbersome and does not allow for fast-tracked procedures in cases for which ex-ante the archeological impact is trivial (e.g., excavating five centimeters of soil to build a road).[12]

Legislation introduced in 2011 provides simplifications and improvements to the licensing regime for industrial warehousing that do not extend to the other two warehousing licensing regimes. The licensing process has been simplified for industrial warehousing (licensed under Law 3982/2011), and steps for more transparent communication with the users have been established, including informative web-based communication.[13] For example, now licensing for the installation of establishments in which there are no permanent mechanical installations (except forklifts) and that do not store flammable goods is relatively simple. The steps are the following: A declaration of compliance is submitted to the relevant licensing authority accompanied by necessary pre-approvals and documents. These documents include a

12 Archeology is obviously a most important safeguard for any construction, they intervene upstream to inform the developer about the sensitiveness of the zone, and downstream to check potential discoveries during construction. It seems that this constraint is very much accepted by developers, and that archeologists are professional, but not flexible. As in some other countries, there is a legal framework that obliges the developer to contribute financially to digs, which is a reasonable requirement.

13 See for example the website of the Attica Region. It has a page where the user can access information and questionnaires to request licenses: http://www.patt.gov.gr/main/index.php?option=com_content&view=category&layout=blog&id=210&Itemid=209&lang=el.

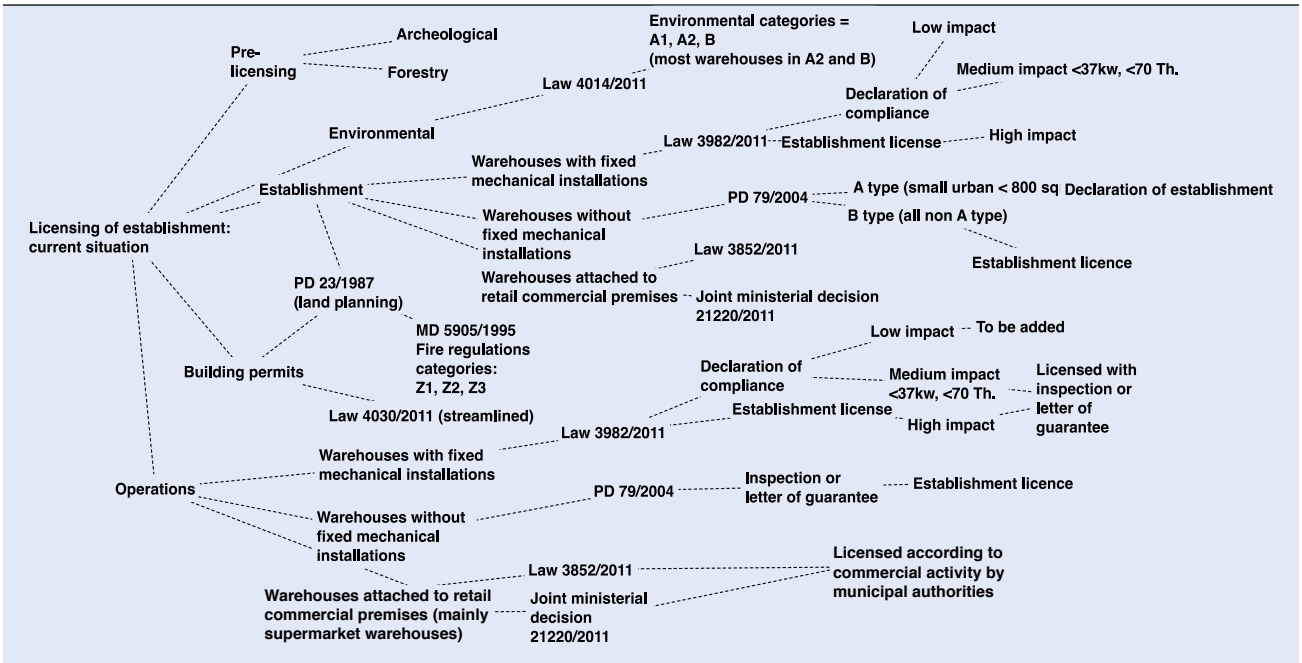
declaration by a civil engineer certifying the stability of the building, a health certificate, and a fee for paperwork. The other two licensing regimes for warehouses have not been reformed, suggesting that there is scope for transferring to them some of the best practices and innovation of Law 3982/2011. The full sequence of licensing permits is reported in Figure 2.8. The schematic representation also clarifies differences in the licensing procedures for establishments under Law 2982/2011 and PD 79/2004.

Technical standards for warehouses are relatively restrictive, resulting in less than optimal layouts and hurting productivity due to less efficient and flexible storage practices and operations within the warehouse. There are essentially two types of technical standards governing warehouse construction: (i) limitations on building-height and maximum land coverage, set by zoning rules applicable to the industrial, commercial, and unidentified areas where warehouses are built; and (ii) the fire regulations, which are implemented by local fire brigades. The rules governing warehouse size are generally set at the local government level in urban planning processes. Height-requirements are more restrictive in Greece than in Western EU countries where 30-meter warehouses exist, compared with a legal maximum of 11 meters in the Thriasio area, and 13 meters in Sindos. This hurts investment in automated warehouses where height would be a constraint.

The rules governing fire regulations are a national issue. The regulatory framework is old dating back to 1988 (Presidential Decree 71). Current legislation has strict requirements for passive fire protection. For example, according to the applicable regulation,[14] each warehouse should be divided into "fire compartments" of a maximum volume of 15,000 m^3, separated by firewalls. This creates impractical storage areas that are extremely cumbersome for automation or high volume areas. Moreover, the regulation has perverse effects—operators have incentive to overload the restrictive storage spaces within the fire compartments, increasing safety risks. In 2013 the fire department was studying options to move to a more modern, risk-based assessment for compliance checks. A new fire authorization, to be issued in the summer of 2013, limits checks to 30 percent of the buildings, with more attention to large buildings that are close to sensitive areas. In 2011, the Technical Chamber of Greece, the corporate body of all qualified engineers in Greece, which acts by law as the technical consultant to the Greek state,

14 Presidential decree PD 71/88 (Government Gazette B 316 A).

FIGURE 2.8: **The permit system applicable to warehouses**



proposed modifications to the fire regulations. This implies lifting some of the constraints and rigidities on passive fire protection, including on the maximum volume of space to separate by firewalls. Yet, the proposal from the technical chamber does not respond to some of the key constraints of logistics facilities, including the restrictions on the volume of fire compartments, which hampers operators' ability to organize warehousing more efficiently.

Logistics Zones

Most logistics zones in Greece have developed without planning, generating inefficiencies in the facilities. Logistics zones (for warehousing, container depots, truck depots, etc.) in Greece have clustered in relatively few areas. In the Attica region, the main concentration is in areas connected by Attiki Odos: Mesogeia, Asporpyrgos, Mandra, Magoula, Elefsina, and Thriasio. Small-scale logistics activities are concentrated closer to the center of Athens in Elaionas. The warehouse facilities have developed over time and clustered without planning or attention to the special needs of the industry. The warehouses were built on land with different uses (industrial, commercial, unclassified), and sometimes with *ad hoc* specifications and no proper authorization. In many cases, the 3PL operator is a tenant. As a result, access infrastructure is relatively poor and warehouse zones intermix with residential areas. Not all buildings are compliant with zoning or safety regulations, especially in Elaionas.

By contrast, the more recent Sindos zone in Northern Greece is a planned logistics zone with adequately designed layout and multimodal access. When the authorities developed the Sindos industrial park, a majority of investors were logistics companies interested in taking advantage of the exceptional location of the park. Another planned but different concept has been the Thriasio Pedio multimodal logistics centers operated by Gaiose, the real estate management company of rail facilities, where relatively small spaces can be rented.

The location of logistics activities and the infrastructures to support them are important strategic components for the competitiveness of the sector. A logistic zone should be viewed as an integrated space whose competitiveness is determined by a variety of factors. The most important factors to consider are the following: connections with backbone transport infrastructure (rail, road, airports, and ports); access to a qualified workforce; charges (fees and taxes) for services (such as good road access, illumination, availability of public transport for the workers); proximity with complementary activities (horizontal integration) and/or users and contractors of upstream or downstream services (vertical integration); distance from the consumer and end-markets; potential for two-way transport (to avoid empty loads on return trips); cost of land and construction; social, environmental, and political risks. To be competitive and efficient, a logistic zone should be planned not only thinking of the needs of the industry today, but also of its developments several decades from now (e.g., large access roads to accommodate the ever larger trucks and containers, flexible and easy to restyle facilities, etc.).

Three sets of issues emerge as particularly important for a more carefully planned approach to logistics zones in Greece:

i. The role of local governments regarding planning, access, and municipal services.
ii. The rationale for and content of a legal framework for logistics zones.
iii. The case of semi-legal zones to be reconverted and reclassified.

The lack of regional planning has led to areas without adequate supporting infrastructure and a great deal of variance in building standards across regions. The warehouses in the Attiki Odos area have been built according to local zoning standards for height and land coverage. As part of the National Logistics Strategy process, documented in Appendix 1 to this report, working groups have compiled a detailed inventory of the requirements for land coverage and of building ratios applicable in the municipalities with a high concentration of logistics activities (Thriaso, Tanagra and Sindos). Municipal fees in these areas have also been documented. In most cases, the building ratios are smaller than the European (0.4 to 0.45 against rations that go up to a coefficient of 0.6).

Municipal fees vary greatly across the country and are considered high by the profession compared to the quality of services provided (See table 2.1). For example, logistics operators documented that in some municipalities, the fee is based on the total land area of the estate, whereas in some others it is based on the built space alone. Fees represent sizeable portions (ranging from five percent to ten percent) of the rent value of warehouses. The private sector complains this is not commensurate with the low quality of municipal services or infrastructure available. For example, the local road network serving the logistics areas in the Attica regions is relatively poor, with narrow roads ill-suited not only to the

Table 2.1: Fees have three components (data for early 2013)

Annual fees and taxes by type	Type of space	Aspropyrgos	Sindos/Kalithea
Municipal fees*	Sheltered	2.22 €/m^2; after 6,000m^2 1.35 €/m^2	1.80 €/m^2
	Unsheltered	2.22 €/m^2; after 6,000m^2 0.69 €/m^2	0.60 €/m^2
Municipal Tax	Sheltered	0. 87 €/m^2	0.28 €/m^2
	Unsheltered	0. 43 €/m^2	No tax
Charge on rent		3.60–7.80 €/m^2	2.16 €/m^2

*Annual level of fees paid monthly as part of the electricity bill.
Source: LPC, ST1-ST2 working groups.

larger trucks that are likely to be the standard in the coming decades, but also to current truck traffic needs.

Previous attempts to designate protected areas for logistics activities have been unsuccessful. A decade ago, in an effort to promote multimodal transport and consolidation of logistics, Greece created a law defining Freight Villages.[15] Based on the availability of rail connection, the law prescribes three categories of freight villages: (i) freight villages with rail connection must have a minimum of 50 hectares; (ii) freight villages with rail access at least 50 km away must have a minimum of 25–50 hectares; and (iii) Freight villages on islands or if rail access at least 100 km away must have a minimum of 10–25 hectares. The law also defines freight villages according to their distance from ports. There are no examples of investments made under this law, and most countries in Europe have seen fast development of logistics centers without the support of such a legal instrument. Warehouses can be built in business parks, and the need for such a law is debatable.

The challenge of developing modern logistics in Greece is real, and the binding constraint is insufficient recognition of the specific needs of the industry. Nevertheless, the flexibility of warehouse location in different zoning categories in Greece is positive. There is no good reason for creating a specific zoning category for logistics activities. Warehouses can be built in commercial zones, industrial zones or undetermined use zones. They can also be built in designated business parks. The nature of logistics activities requires high land coverage: on average there is a ratio of one worker per 200 square meters in a logistics facility. In comparison, there is generally one worker per 20 square meters in manufacturing and one worker per ten square meters in urban economic activities. As a consequence, logistics tends to locate outside residential and commercial areas, where the cost of land is lower. Environmental concerns and the heavy vehicle traffic generated by logistics activities related to industrial businesses also push logistics into peripheral areas.

Semi-legal zones. A number of logistics zones have emerged in different parts of Greece where the spatial planning requirements do not meet the actual use of the facilities—for example, logistics zones developing on agricultural land. Even large facilities are sometimes found in such semi-legal zones with no proper legal permit. Such a legal limbo creates uncertainty and reduces the potential for investment. This is an issue between the municipalities which regulate the land use and the owners of the facilities. Yet because it is widespread across the country, the central government needs to bring some guidelines on how to solve this situation.

Trade facilitation and transit issues

Trade facilitation, or the need to simplify and expedite procedures for exports and imports, is an important part of the supply chain agenda. Aspects of trade facilitation include activities under Customs Administration control within the country (special regimes), as well as regulation of ancillary professions, such as customs brokers. Greece performs not well in customs functions; that category earns the lowest score in the country's Logistics Performance Index (LPI) evaluation. The Greek government has already targeted trade facilitation as a priority area for reform through

15 Law 3333/2005.

BOX 6: The National Trade Facilitation Strategy

The strategy, publicized in October 2012, is led by the Ministry of Finance, Ministry of Development and Competitiveness, Ministry of Foreign Affairs and Ministry of Rural Development. There is an active Trade Facilitation working group consisting of senior officials from these ministries. The current focus of the working group is on the establishment of a single window for export facilitation. In addition, the working group is engaged in several components, including:

- Business process analysis (BPA) to map the procedures. Several BPAs have been conducted, tailored to specific products (e.g., kiwi exports to China).
- Customs procedures and risk management.
- IT (single window), with the Integrated Customs Information System (ICISnet).

Prior to the establishment of the strategy, the Greek Government received expert advice from European customs officials, which identified the following major challenges faced by Greek exporters:

- Widespread administrative barriers to export;
- Absence of a coordinated and commonly accepted export-driven strategy and support; and
- Financial constraints, in particular related to the length of time taken for VAT refunding by the Greek administration.

The report also noted that:

- Procedures are still manual;
- Weaknesses exist in risk management and the percentage of physical inspections is high;
- Monopoly power is given to customs brokers (before the law was changed); and
- There is relatively little use of the simplified procedures and special regime for compliant operators that the EU code allows.

major initiatives, including the preparation of the National Trade Facilitation Strategy (Box 6).

Trade facilitation challenges

Trade facilitation in Greece is complex. Although an EU member, until recently the country was physically de-linked from the rest of the EU. Most Greek trade is with the European Union or with countries that have trade agreements with the EU. Duties are thus collected on only a fraction of Greek trade. However, geography and logistics complicate the situation: Greek trade with the EU has to go through transit in third countries or be shipped internationally. There are essentially five reference cases applying to trade (both to imports and exports).

- Intra-EU trade going on ferries (mostly Patras-Brindisi/Ancona).
- Intra-EU trade going in transit through non-EU countries (Former Yugoslav Republic of Macedonia and Serbia), under TIR Carnet.
- Intra-EU trade to Eastern European countries through the Bulgarian border.
- Intra-EU trade container-shipped through Piraeus or another Greek Port.
- Extra-EU trade container-shipped through Piraeus or another Greek Port.

The port of Piraeus accounts for the largest container volume. It handles about 2,000,000 TEUs per year (2012). The bulk of this traffic goes through the Piraeus Container Terminal (PCT). The Piraeus Port Authority (PPA) terminal, operating as a trans-shipment gateway for Mediterranean Shipping Company (MSC), accounts for about 20 percent of container movements in Piraeus. The PPA terminal clears a relatively small number of containers, especially as many of them are not dutiable (about three percent of containers are destined for the local market).

Declarations are still mostly submitted by customs brokers (despite the fact that the new law abolished this requirement) to the customs office. There are two different procedures:

- The containers originating from non-EU countries, the brokers submit the documentation to customs and pay the duties. The process is essentially manual and involves (i) paper documentation; and (ii) direct payment in cash or bank check. According to the terminal operators, the process is not too long (three days seems typical for the dwell time, but varies widely).
- The containers from the EU, which are mostly accompanied by a T2L,[16] document that is expedited essentially in real time upon submission to customs. Operators mentioned that normally containers are removed the same day.

Despite having what seems to be an essentially manual and cumbersome customs clearing process for trans-shipment goods clearance is not perceived as a major operational problem in the terminals. The number of containers for the local market (400,000 TEU) is sufficiently small to be managed effectively even within a manual and somewhat antiquated process. Thessaloniki on the other hand does not do trans-shipment, but handles a similar number of containers for the local market (300,000 TEU).

Challenges in Customs Administration

The PCT's customs clearance procedures fill a vacuum in coordination of trade procedures by customs agencies. COSCO, the company that operates the PCT, has been proactive and has taken implicit responsibilities in facilitating clearance at Piraeus. The key features of the PCT initiative are the following:

- PCT electronically receives the manifest from the shipping agents and transfers it to customs.
- PCT opens a physical single window, where brokers come first to check that the documentation is complete, including for customs and other border control agencies.
- After PCT checks the files and the payment is made, brokers go to the customs department which is next to the PCT "single window."
- Brokers get customs clearance.
- Once the clearance is done, truckers are notified by PCT or by the brokers that they can proceed to the gate.
- PCT has also set up a RFID[17] system with preferred truckers (about 1,000 trucks are involved in the scheme).

This initiative by PCT is excellent, but goes beyond what a terminal operator typically does. It fills a vacuum in coordination of trade procedures by the customs agencies.

Border controls by various agencies, especially phyto-sanitary, are cumbersome and create delay. Control by other border agencies is done before the customs submission. Those agencies are not in the perimeter of the terminal and come on demand for inspection. Phyto-sanitary control has been mentioned as the most problematic. Delays involving those transactions could not be evaluated.

Physical inspection for non-EU imports is high. The physical inspection level remains high at about 20 percent for non-EU import containers in the Port of Piraeus In the Port of Thessaloniki, however, only about three percent of containers are physically inspected. However, the pilot initiatives under the National Trade Facilitation Strategy are expected to bring improvements if extended to all the traffic and imports. The percentage of controls on goods upon export performed on a pilot basis (by certain customs offices) is indeed in line with the EU average percentage of controls (five percent). These developments are likely to depend on the entry into full operation of ICISnet and on the subsequent upgrading of the risk analysis system are.

Hours of operation are inadequate. This is the most common problem mentioned by the operators. While at the land borders, customs offices are open 24/7, in the rest of the customs offices and until recently, non-dutiable containers could only be processed from 7am to 5pm during weekdays, up to Saturday mornings. Recently, however, Greek customs authorities' working hours have extended operating hours, on a pilot basis, at the Customs Office of the Athens International Airport "El. Venizelos" (24/7 basis) and the 5th and 6th Customs Offices in Piraeus (up to 9pm on workdays and 3pm on Saturdays), in an attempt to respond to traders' needs. A cost-benefit analysis will be carried out at the end of the pilot period to quantify the benefits of such an extension and take decisions to apply to all customs offices in Greece. Meanwhile, dutiable containers cannot be processed after 3pm on weekdays, because an armored truck needs to collect the duties and carry them before bank closure.

The need to pay in cash or via checks is a barrier to entry that until recently maintained a de facto monopoly for brokers. Established customs brokers used to have a credit line with Customs that allowed making payments swiftly.

16 The T2L form is a document certifying the EU status of the good. In some cases a T2 document is instead produced, which certifies goods under the internal Community transit procedure.

17 RFID, Radio Frequency Identification, is the use of radio-magnetic fields for the purposes of automatic identification and tracking.

Other operators instead had to pay in cash or via checks, putting them in an uncompetitive position. Moreover, payment after hours is not possible and creates further delays for processing goods that arrive later in the day. These barrier however are being lifted, following the introduction of electronic payment for customs duties, taxes and other charges through ICISnet (expected for late 2013) and the new legislation on customs brokers (see Box 7).

Reliance on customs brokers created incentives for lack of transparency and weakened the capacity of traders in dealing with customs on their own. Until recently, customs brokers in Greece were given a monopoly on interaction with customs and were a closed profession (Act 718/77). This created a dependence on customs brokers, incentives to maintain a low level of transparency, and lack of clarity on the extent of customs brokers' responsibility. This arrangement between customs officials and customs brokers provided little incentive for the customs administration to develop its operations in line with EU standards. Moreover, the customs brokers' monopoly inhibited the development of customs skills among traders which remain rather weak.

The law that recently liberalized the profession in line with the EU code and international best practices remains underutilized. While in principle a trader should now be able to lodge his/her declaration without hiring a broker, this almost never happens. Despite the efforts of the government to communicate the details of the reform to the operators (see Box 7), the perception of the private sector is that there are still problems for a freight forwarder in hiring a customs broker as his or her own employee. Some operators lamented social security issues: apparently the social security code regulating freight forwarders cannot be applied to a customs broker. The social security conditions for the latter are regulated by the code for couriers.

Special regimes are also under-utilized. In accordance with the EU customs, operators in Greece are entitled to simplified procedures or special regimes meeting certain codified and transparent criteria. This type of regime is critical to increase the productivity of manufacturers trading internationally, as it eliminates a series of documentary and financial transactions. This possibility has been granted to 31 Authorized Economic Operators (authorized consignees) as of June 2013. According to Greek authorities, 10 additional applications are pending, as the operators need to implement corrective actions requested by the customs authorities. The number of applications remains low compared to the number of operators that would qualify. Some operators lament that customs has limited capacity to certify the operators who can benefit from the simplified regimes while the Greek

BOX 7: New legislation on Customs Brokers

In accordance with the provisions of Law 718/77, as amended and updated (by Law 4093/2012, Article 1, subparagraph E5 (Government Gazette 222, Issue A and Legal Act "provisions on emergency matters under Laws 4046/2012 and 1493/2012"), significant changes have been introduced in the performance of customs representation. These changes have been specified and notified to economic operators through their professional associations/unions and chambers, by means of a ministerial circular (Δ19Γ 5044128 ΕΞ 2012/23-11-2012).

This circular indicates that:

a) Customs clearance may also be performed by natural or legal persons or associations of persons other than customs brokers and firms of customs agents, in particular:
   - by the owner of the goods in person (as regards goods belonging to natural persons) or by the legal representative of a legal person in public or private law, either resident or non-resident (in the case of goods belonging to such a legal entity), or
   - by the representative(s) of the owner of the goods (other than customs brokers), who may either be employed by the owner or a natural or legal person or association with legal capacity authorized by the owner of the goods to act on his behalf as a customs representative.

b) Restrictions on pursuing the profession of customs broker as a freelancer have been eliminated and it is now possible to work as a customs broker also through a subordinate employment relationship; as a result, a legal entity may hire a customs broker as its employee, to represent it at customs clearance.

government points to low demand from the operators. It appears that better communication between the public and private sector is needed, to understand the reasons why operators do not use the simplified procedures and to increase awareness among import/export companies that comply with the conditions for simplified procedure licenses of the advantages of such arrangements. A series of promotion initiatives through category associations and directly targeting top exporters is underway.

Current management of bonded warehouses is not aligned with international standards. Bonded warehouses are an important tool for logistics development in Greece. They are critical to logistics activities where goods are re-distributed from Greece to other countries. The principles of good management of bonded warehouses are fully included in the Common Customs Code and the operation of most warehouses is fully computerized. The binding constraint to best-practice implementation seems to be the current capacity of customs, not that of the industry. Currently, authorized bonded warehouses are primarily used for alcoholic beverages for which there is an excise tax or for electronic goods. There is no customs staff on-site at the warehouses and the Customs Authority does not have the capability to connect to the electronic inventory systems of the logistics providers (this is the modern practice for bonded facilities and is needed to trace the movements in and out of the bonded inventory). This weak capacity raises a potential fiscal risk for the Greek government.

Road and Rail Transit

Transit—the carrying of goods across a country—s important for Greece's logistics. The costs of Greek exports and imports by land are dependent on transit through non-EU countries; more specifically through the Balkans (Serbia, Former Yugoslavian Republic of Macedonia) for merchandise directed to European countries, and through Turkey for trade with Central Asia. Moreover, Greece is a transit country itself, primarily for Turkish trade. Transport transit is done by road or by rail.

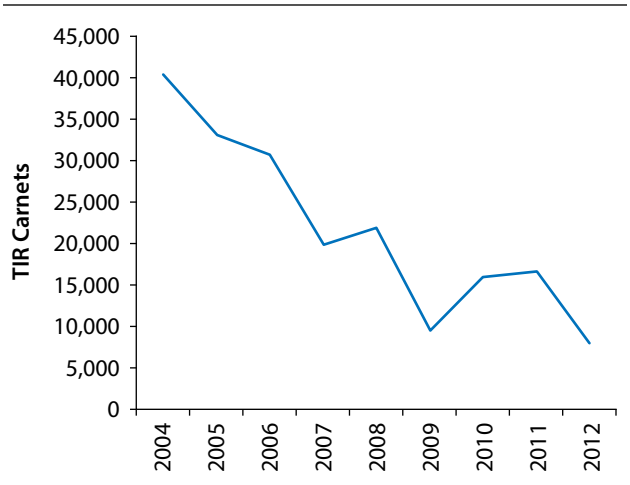
Road transport transit rights are regulated bilaterally through agreements, based on which Greece exchanges annually a number of truckers' permits with each of the countries concerned. The use of the permits is balanced, with the exception of Turkey where Turkish truckers use the whole quota (35,000 transit permits) and ask for additional permits while Greek truckers use an insignificant number of permits for transit through Turkey.

Transit trade is subject to special customs procedures (transit regime) that facilitate trade and transport while protecting the state's revenues in the transit country. Transit regimes guarantee the payment of duties and taxes that might become due if goods are (fraudulently) diverted and enter the market in the transit country. Transit regimes are common practice in Europe and Central Asia; they proved essential in facilitating trade for decades. Greece implements two customs transit solutions: the Community Transit (through the New Computerized Transit System or NCTS) for trade transactions within the EU, on common transit for trade transactions with EEA countries or between EEA countries as well as international transport of goods under the Transport Internationaux Routiers (TIR) within the EU (NCTS-TIR); the rest of the traffic is handled through a paper-based system, the TIR Carnet, for the trade with or through a non-EU country.

The use of the road transit system has declined in recent years, reflecting the weak performance of the economy but also fierce competition from neighbors. The TIR Carnets issued by the Greek guaranteeing association OFAE dropped sharply between 2004 and 2012 (Figure 2.9). The decrease in 2007 can be explained by the accession of Bulgaria and Romania to the EU. In 2011, Greece issued less than 10,000 TIR Carnets, while Turkey issued 672,000 and Bulgaria 150,000 (Figure 2.10).

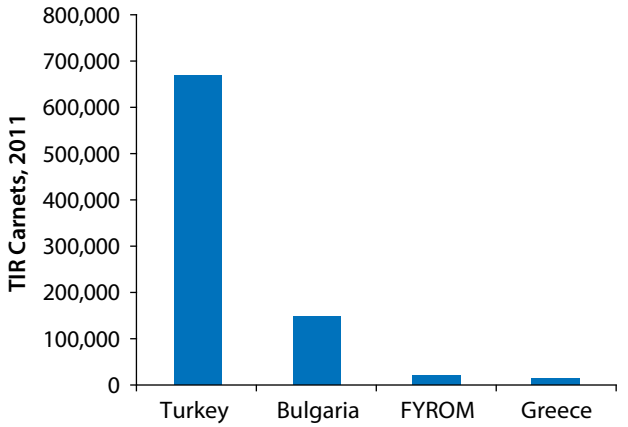
Despite easier customs procedures, rail transit is not as widely used as road. Transiting goods by rail faces different

FIGURE 2.9: **TIR Carnets dropped drastically in Greece**



Source: OFAE

FIGURE 2.10: TIR Carnets in Greece and its neighbors



Source: OFAE.

challenges than by road. Rail is a much more secure mode of transportation from the perspective of customs control. Rail transit has simplified procedures, defined in two major international agreements covering Western and Eastern Europe. Several operators have been trying to operate scheduled block trains to/from Austria or the Czech Republic from/to Thessaloniki, through the Balkans. Such services require a series of agreements between the railways on the route.

Procedures at the border appear to slow transit traffic. Given that rail transit does not require Customs Authority guarantees for transit, the procedures at the borders can be greatly expedited and take about 30 minutes. Yet there are delays in some areas. Veterinary controls at the Serbian and Former Yugoslavian Republic of Macedonia borders may cause delays of up to two hours, and there is the risk of wagons being blocked at the border. Moreover, control for illegal immigrants creates delays.

Simplified procedures, including risk management, are possible in transit. This area is under the control of the Customs Authority, which has a role of ensuring the balance between facilitating trade and securing the state's revenues. Additional areas that require improvements include:

- The simplified procedures foreseen in the Community Customs Code (authorized consignees, authorized economic operators) are used to a limited extent, with no expression of interest by economic rail and road operators so far for simplified community transit arrangements procedures;
- The Community Transit System is computerized, with the exception of the connection between customs and the authorized consignees/consignors;
- The immediate and prompt access to data seems to be difficult, even within customs: for example, to obtain statistics on the number of NCTS and TIR operations, or the number of authorized consignees/consignors existing in Greece, a customs staff needs to make a demand to the specialized IT services;
- Customs is the main border agency and conducts controls on Greek and foreign haulers on a risk-analysis basis. However, scope for improving the compliance of foreign transit operators to Greek and EU law seem to remain; and
- The "right of functioning of customs operations" (DETE) is perceived on every customs operation, and is calculated based on the value of goods. These fees should normally be based on actual processing costs. The fact that they are based on value in Greece violates WTO principles. A working group has been set up by the Greek government to look into the existing legal framework and its implementation and undertake a review of imposition, calculation, and payment of such fees and ensure that they are in line with the services provided by customs officials and respond to traders' needs and other Member States' good practices.

Other challenges affecting supply-chain operations

Trade facilitation is also affected by other cross-cutting issues that hurt supply chain efficiency, including the following:

Compulsory documentation of inventory management and goods movement along supply chains. Supply-chain operations require the filing of tax documents to track the movement of merchandise in inventory. This procedure was designed to fight tax evasion. In Greece, however, the private sector complains that the modalities for this documentary requirement are a major source of complexity in operating supply chains. There is no equivalent in EU countries.

One documentary requirement has complicated deliveries and hurt small companies more than large companies. Paper documents called "compulsory delivery notes," which carry unique fiscal identification numbers, are used for (i) movement of goods from one site to another in the same company; and (ii) sale of goods to another company (or transfer to another legal entity within the same compa-

ny), irrespective of movement or not. Until late 2013, the paper document must be signed by the receiving parties. Both the shipper and the consignee are required to keep the paper document for ten years. The objective is to be able to trace and reconcile transactions in case of tax inspection of one or the other party to the transaction. Large companies have special printing machines that generate the documents—with unique IDs—and transmit them to the tax administration. The compulsory delivery note format, however, contains incomplete information on the goods, and therefore must be complemented by a commercial delivery order. One additional problem is that the compulsory delivery notes include a date- and time-stamp. If a delivery is stopped in a road-side check, for example, authorities may not accept a document with an earlier date (this is to prevent delivery notes from being used twice). So documents issued one evening may not be accepted the next morning. This means that the procedure hinders physical movement of goods and logistics performance. In late 2013, the Greek government allowed for an electronic version of the delivery note by introducing a software able to generate unique identifier numbers. This measure is expected to lift the challenge lamented by operators.

Compulsory insurance. Greece has a unique legal provision that makes insurance of goods compulsory for the shipper hiring commercial transport services. This provision is a source of cost and complexity, has no economic grounding, and is not in line with EU practices. Moreover, it discourages the outsourcing of logistics. This provision can be streamlined and included in broader insurance policies.

Enforcement of EU regulation on fruit packaging. This is an important EU regulation from a food safety standpoint, but it is not well-enforced in Greece. According to Greek exporters of packaged fruit, unregulated export of Greek fruits is widespread. For example, out of about 230,000 tons of annual exports of watermelons, 100,000 tons are exported by unregistered traders; and out of the remaining 130,000 tons, about 70,000 tons are exported without EU-compliant packaging. Such unregulated trade departs from various roadside locations, such as gas stations. Greek exporters of packaged fruit estimate that legal trade worth 30–40 million euros—or about 60 percent of total sales of fruit—is lost due to the lack of enforcement of this regulation.

Certification and supply-chain training. Improving training and quality are indispensable to attract demand and make international shippers confident that they can use Greece as a logistics hub. Although companies should have no difficulty hiring staff given the current unemployment rate in Greece, the lack of training and education in logistics-related occupations remains an issue for which technical assistance from EU countries can be useful. Some associations provide courses to those already working, but the supply and scope of this training is insufficient. On the job training should be strengthened, especially for technical staff, as current trainings are reportedly not enough and lack proper sensitization to quality or safety. Technical standards of staff in Greece are below those in the Western EU countries in areas such as pallet consolidation, movements in warehouse, and warehouse management.

Higher-level education in logistics or supply-chain management is not developed in a unified manner. There are two university departments for undergraduate programs: teikoz[18] and teithe[19] and several postgraduate courses. However, logistics or supply chain management are offered as part of other business and technical subjects. The only notable exception is the availability of education in shipping and related subjects; this is understandable given the prowess of Greek shipping worldwide.

18 http://logistics.grevena.teikoz.gr.

19 http://www.logistics.teithe.gr.

CHAPTER 3:

Recommendations and Conclusions

To realize its objective of becoming a gateway for Europe, Greece may want to consider undertaking a number of reforms to its transport, logistics and other trade-related sectors. It will need to take measures that facilitate investment and also make changes to regulations and systems to encourage the modernization of sectors that are vital to both the health of the country's business environment and also firms' ability to survive in the face of competition within the region. There is not one single, major reform that will enhance the competitiveness of logistics in Greece. Rather, improving the performance of the sector will require a continued and coordinated effort to enact micro-interventions to address the many small distortions that combine to create great uncertainty, raise information costs for new entrants and ultimately deter investors.

Certain sectors can be regarded as transformational in the Greek economy. Among those are the trucking, railway and port industries. These areas, if guided correctly, have the potential to give a big boost to business viability and investment in the country. While a concerted effort to reform the trucking industry has been moderated by significant political hurdles, these efforts should continue at whatever pace is feasible. Though access to trucking permits has been liberalized, the cost of joining the industry is still too high. This condition holds back true competition and innovation in the sector.

The connection between the railway and the Piraeus container terminal is key and will allow growth of freight transport. This will happen by strengthening opportunities for commerce between Greece and Europe, as well as transit traffic across the country. The speed of development in that area may hinge on the market reaction to new business ventures, such as the recent agreement to transport Hewlett-Packard freight. To ensure that these private sector initiatives are successful, planned investments should continue apace, such as the construction of a second, parallel line to increase the capacity for freight traffic, the full electrification of the main train line, the privatization of TRAINOSE, the state-owned rail operator, and infrastructural investment to enhance the EU transport corridor connecting Greece to Central Europe through the Balkans (Corridor X).

Changes to other sectors are necessary to push Greece's logistics industries to mature. Some factors holding back the modernization of the logistics industry are directly related to the design and implementation of government regulations. In particular, licensing issues and regulations surrounding the construction and fire-protection of warehouses should be simplified. The steps required for becoming a third-party logistics provider, also, should be simplified and clarified. In addition, the government should take more steps to support the provision of appropriate services to providers of logistics services, such as allowing the construction of roads appropriate for industrial traffic and working with business-owners to find appropriate solutions for waste disposal.

In designing regulatory reforms, the government may want to consider targeting medium- to long-term market demand and build a reputation for high-quality service and reliability. Clearly the comparative advantage of Greece should lie in delivering quality services: the country cannot compete with the cost-advantageous emerging countries or with the technological juggernauts of Northern Europe. For this reason, the priority may be given to those reforms that push operators to apply best practices and deliver superior services. Dubai and Shanghai, which in a few decades acquired a global reputation as important centers for logistics, represent role-models in this sense.

The rest of this section addresses these issues in more detail, offering specific proposals to overcome hurdles in Greece's logistics environment. The proposals were discussed with the Greek Logistics Permanent Committee and a wide range of stakeholders in Greece, although the sole responsibility for the proposals rests with the World Bank. This does not imply that the Greek government, the Logistics Permanent Committee, or the private sector in Greece share the views presented in this report. The proposed actions are designed to help the government move forward with strategic improve-

ments. The section is organized along the following lines. It suggests that the government, in close collaboration with the private sector, take steps to:

1. Look at the big picture: Develop concrete logistics priorities, set in place a mechanism for sustaining the policy action over time with coherence and flexibility, simplify procedures, improve coordination between agencies and communication with the public, promote professionalism in the sector, and enforce regulations in a systematic and predictable manner to minimize costs and delays.
2. Invest strategically: Ensure that logistics infrastructure does more to connect Greece to Europe through the most cost-efficient routes, and place emphasis on the rail and port sectors.
3. Target medium- to long-term market demand and build a reputation for high-quality service and reliability: Support the modernization of logistics service providers, promote the phasing-out or the reconversion of low-quality informal clusters into well-developed logistics parks, enact regulations that simplify licensing, encourage investment in logistics and the use of outsourced logistics services, align legislation on the safety and security of establishments with best European practices, clarify scope, taxation, and conditions of operation of logistics services and required qualifications, and make the Greek logistics industry more competitive and sophisticated overall.

- Facilitate international trade: continue to streamline customs and fiscal procedures.

Overcoming institutional hurdles

Prepare a National Logistics Strategy and institutionalize the private-public sector, results oriented dialogue

Improving logistics performance requires sustained attention. It involves actions that cut across many policy areas, and will take time to implement. An effective approach would best include a stable process for stakeholder dialogue that will survive across governments. At the same time, the process would best grant flexibility, including in the selection of priority topics and in the selection of the market players involved in the discussions and other preparations.

The Ministry of Development, Competitiveness, Infrastructure, Transport and Networks (currently split in Ministry of Development and Competitiveness and the Ministry of Infrastructure, Transport and Networks) has started working with a group of stakeholders. This group is representative of the industry to analyze a wide range of issues relevant to improving the logistics environment. The World Bank supported the initiative offering analytical and process advice. Appendix 1 describes the details of the initiative, also providing an overview of the main roles of the Ministry, the private sector stakeholders, and the World Bank in the process established.

The recently-formed Logistics Permanent Committee (LPC) that started its works in February 2013 has actively involved individual, large players in the sector, in addition to association representation. The objective of this approach is to identify pragmatic solutions that make sense from a business point of view, to allow the different views to be represented in the discussions in a transparent and balanced manner and to avoid capture of the reform process by operators who may have thrived under old, inefficient systems. To this end, the committee—which was charged with outlining a national logistics strategy for Greece—has embarked on a serious work program consisting of parallel sub-programs of reforms, with strong ownership from the private sector and other stakeholders (see Appendix 1 for a brief summary of the LPC's initiatives to date).

Ultimately, the Logistics Permanent Committee (LPC) should be institutionalized. As reforms take time and new challenges will arise the LPC should survive governments and become a genuine consultative mechanism that allows the Ministry of Development and Competitiveness, the Ministry of Infrastructure, Transport and Networks—and the government as a whole—to effectively consult with the private sector on improvements to the logistics environment. It should represent all views and avoid being captured by firm or group specific interests.

Designing an effective and viable strategy requires that the strategy itself links legislative measures, implementation, and enforcement. It should anchor stakeholders' visions (both government and private sector), improve coherence, and provide greater certainty to the private sector. Most importantly, it should be pragmatic. It should not be a philosophy; it should be inclusive, attentive to business needs; and have a plan of action with clear, concrete priorities and proposed actions. To make the strategy effective, it should include the following key participants and principles:

- Represented in the dialogue should be government ministries—mainly the ministries of development, transport, shipping and finance—as well as key market players. Associations and sub-national public entities should be in-

FIGURE 3.1: **Examples of issues at operational, tactical and strategic levels in Greece logistics environment**

	Day-to-day / Operational	Quarterly/Annual / Tactical	Multi-year / Strategic
Existing regulations			Enhance investment in logistics by streamlining and improving existing regulation.
Demand: Logistics users		Dominance of in-house logistics: drivers, costs, service level.	Facilitating logistics operations environment.
Supply: Logistics providers	Cost drivers: imbalanced and thin flows; poor security; cross-docking; tolls; inefficient public services, strikes, etc.	Improvement of service quality; professionalization of the logistics activity, incentives to use 3PLs.	Availability of land with access to infrastructure vs. cost; reconversion of informal logistics establishments, clusters.
Services by public authorities and other issues	Access to and level of infrastructure; Permit issuance; Customs clearance.	Municipal service vs. fees for logistics facilities.	Customs modernization Trade Facilitation Roadmap complementary measures, Efficiency of public services.

volved, but their representation should be balanced and limited to issues relevant to their function.

- The strategy should acknowledge and reflect regional specificities.
- It should clearly define an agenda and timeline for implementation, with milestones and topics decided upfront.
- It should build on case studies identified by private-public sector working groups.
- It should be developed through a bottom-up approach, with assessments based on coordination with other ongoing efforts of reform, such as the wider efforts of improving licensing regimes, the reform of key economic sectors (e.g., retail), of the Trade Facilitation Strategy currently being developed and implemented by the Ministry of Development and Competitiveness and the Ministry of Finance, respectively. It should distinguish between operational, tactical, and strategic effects (See Figure 3.1).

The Greek Government should produce a strategy or a master plan as soon as possible, so to anchor all other initiatives by the Greek state and any other stakeholders to it. To facilitate this process, Appendix 2 provides some suggestions on scope, structure, and issues that the Government may want to consider including in the strategy master plan.

National logistics strategies or master plans from other countries provide useful examples for Greece. A number of countries have prepared—or are preparing—national logistics strategies or master plans to help guide and align public sector policy-making and private sector initiatives to improve the logistics operational environment and the competitiveness of countries. Box A2.2 in Appendix 2, provides the references to a number of national strategies or master plans.

Simplify procedures

Reducing complexity and uncertainty of the legal and implementation framework is essential to reducing the excessive fixed costs firms face because of the difficulty in acquiring information and in dealing with bureaucracy. Introducing clarity (e.g., by providing public access to exhaustive and transparent checklists of procedures and certificates needed for each specific activity) is perceived by the private sector as an important remedial measure. A three-step approach, used in the current work, can achieve improvements in this area:

Step 1: Mapping of processes and procedures with a view to identify competencies, duplications, obsolescence and gaps. The mapping exercise can be undertaken using a bottom-up approach through specific case studies which focus on identifying key problems likely to have a strong impact on supply chain efficiency. This exercise will map the competencies of specific government agencies and departments within the concerned ministries as well as processes and procedures required in each case. Examples include opening a warehouse, obtaining a trucking license, inventory management, and transport enforcement regulations See Appendix 3, Table A3.1 for an ex-

ample of mapping carried out by a working group focusing on transport enforcement regulations under the coordination of the Ministry of Infrastructure, Transport and Networks.

Step 2: Lists of procedures and documents required, and decisions on simplification and rationalization. Following the mapping exercise, exhaustive lists of procedures to follow and documents to produce should be created. The examples provided in Chapter 2, Box 2.4 and Box 2.5 may be of guidance. Following the creation of such lists, proposals for simplification and rationalization should be formulated. The direct involvement of the private sector in this exercise is important to identify the benefits of specific simplification proposals. Tapping into the major regulatory reform effort that is being undertaken in Greece, best practices should be imported from other areas of Greek legislation. For example, the legislation on industrial activities and business parks (Law 3982/2011) calls for leaner procedures for the approval of investments, land acquisition and coverage, the management company and use of the shoreline that could be used to improve the current legislation for "freight villages." Similarly, the simplifications and innovations in licensing for industrial warehouses (also in Law 3982/2011), which envisage fast-track procedures based on declarations of compliance and could be exported to the warehousing licensing regime for 3PLs, regulated under Presidential Decree 79/2004. See also Chapter 3 (Logistics industry) for a further elaboration of these proposals.

Step 3: Communication to the public. The final step is intended to serve as a service of information to the private sector. Guides on "how to do" specific activities,[20] simple guidelines on paperwork required, legislation on environmental issues,[21] risks, persons, or authorities to contact, etc. should be produced and made publicly available.

Such an exercise will (i) reduce uncertainty and allow businesses to organize their logistics activities in the most efficient way given their needs, focusing on their core business rather than on bureaucracy; (ii) help a smoother transition to better business practices during a difficult phase of policy making in Greece; (iii) facilitate and guide the simplification of the legislation and implementation process for the sector, which allows better identification of coordination needs and design of properly functioning information flows within the Ministry of Development and Competitiveness, between Ministries, and between central government and local authorities (regional authorities, municipalities); and (iv) provide a useful tool to document and communicate reforms and improvement of the business environment for the logistics sector.

Improve the coordination between key agencies

Instituting a central point in one of the competent ministries for the coordination of the logistics regulatory environment would be helpful. Logistics as an industry cuts across many areas, with the result that regulatory competences affecting the sector are scattered across many ministries and agencies, at the central, regional and local level of the public administration. A central point of coordination, properly staffed, may therefore be useful to address the needs of the sector in a timely manner and to take a broad view to addressing overlaps in responsibilities within the government and between different levels of government. This will help in regulatory coordination and harmonization.

Mapping who is doing what between ministries, within the ministry, between central, regional and local governments for each logistics services segment will also be beneficial in other ways. The mapping exercise will reduce duplications and gaps; improve the assignment of regulations to the agencies most competent in the specific area; facilitate coordination and information flow within the Ministry, between ministries, and between the central and local governments; and simplify the process of legislation and implementation of policy-making for the logistics sector over the medium term. The government may want to also consider promoting more accountability and coordination within the central government in developing policy, and between the central and local governments in enforcing the adopted policies.

Share data. Completing administrative reform and e-government initiatives will help in the coordination between agencies and levels of government. One example of this would be to create a centralized database for trucks and other logistics activities. This would best be combined with capacity-building initiatives that train public sector officials and enforcers, as well as the formulation of best practices for the supply chain, environmental, and safety policies. All of these training efforts and modernization initiatives within the public sector can play an important role towards better coordination.

20 This type of guideline already exists in other areas and thanks to other initiatives that are being developed, such as the Trade Facilitation Strategy, e.g. "How to do export."

21 As pointed out by the Government, this issue may be part of a more horizontal topic, to be covered as environmental licensing under a separate "investment licensing" project. Such project is currently still in its conception phase.

Examples of problems in enforcement and coordination

Some examples of key problems in enforcement and coordination, and possible remedies, follow:

Example 1: Further simplification of environmental authorization and licensing for warehouse construction

While a one-stop-shop and simplified procedures for environmental licensing has been recently created (Law 4014/2011), there is ample scope for further simplifying the process of licensing for warehouse construction. A combined ministerial decision or a decree could do one of the following:

1. Extend the use of "declarations of compliance," which are already used in the new licensing procedures under Law 3989/2011 to all the cases where the presumed environmental impact is limited.
2. For establishments of low or moderate environmental impact, run inspections and audits after the firm has become operational, as it already happens for fire regulations inspections.
3. Ensure consistency with other steps of the process and their environmental requirements (e.g., with local building permit systems).
4. Identify procedures at regional authority level that can be joined with the environmental procedure (e.g., installation of generators).
5. Identify other steps of the licensing process that can be unified (e.g., eliminating duplications in process for establishment license and pre-permits and environmental permits).

These measures:

- Will not eliminate procedures or authorizations, which are necessary, but they will simplify the process of licensing, by eliminating duplications and delays.
- May be piloted in two to three regional authorities with more activity (e.g., Attiki, Thessaloniki, Veotia).

Example 2: Enforcement of trucking regulations: road side checks

Weakness in enforcement has important consequences for the positive evolution of the transport sector towards the standards of efficiency of other European countries. It encourages low compliance with technical and driving regulations, thereby reducing road safety and increasing the risk of hazardous events. It also weakens the already small commercial sector in Greece faced with unauthorized competition by foreign registered operators and own account Greek companies.

The objective is therefore to implement stronger and more efficient enforcement of national (EU) rules and of international/bilateral agreements (e.g., in trucking: Turkish truckers and tachograph, triangular operations, cabotage).

The design of such measures is an ongoing effort by the Ministry of Infrastructure, Transport and Networks (as of July 2013). The most desirable outcome will be a ministerial decision or a law that targets the following, which would be improvements to the current system. In particular:

1. Improve simplification, transparency, and dissemination of current regulations defining the roadside control for freight transport.
2. Improve professional skills of control staff.
3. Improve the collection of fines.
4. Coordinate enforcers and information-sharing.

The ongoing initiative of the Ministry of Infrastructure, Transport and Networks to draft a new framework law is a welcome first step. The objective of the law is to simplify and make more transparent the current regulations defining roadside control for freight while also eliminating counterproductive specificities in the major laws regulating this activity.

In addition, a collaborative agenda between enforcing agencies is needed to achieve the objectives listed at points 2-4 above. Collaboration, sharing resources, and coordination on the strategy, as well as some modifications to the legal frame are necessary to bring about the necessary investment in ICT, under the financial and human resources constrained environment that Greece is facing (e.g., an effective enforcement grid with shared sensors and information network), to improve the capacity of individual enforcement officers, and to be able to better target non-compliant users.

Develop a monitoring and evaluation framework for greater transparency

Data is critical to informing the logistics sector reform and to track its performance. It helps to better identify priority needs and to monitor progress. It will help promote Greek logistics efficiency and Greece's potential as a regional

gateway with international investors. In Greece, the lack of consistent and comprehensive data is a problem. Data on logistics services provision is scarce, scattered around different public and private entities, and insufficient for informed policy making (some volume data exists but there is virtually no data on supply chain performance). Not only is availability poor, but data is also plagued by little aggregation and analysis. Finally, where available, data is underutilized, as there is no clear understanding of the usefulness of indicators.

The current state of transport statistics in Greece is sub-standard. Data collection mainly covers stocks, while flows (cargo volumes, jobs in the transport sector, direction of flows, breakdown by modes of transport) are largely not recorded. The implementation of a new law (Law 3232/2010) and its amendments in 2012 are underway, establishing a framework for the Greek statistical system as comprising ELSTAT, the various ministries and the National Bank of Greece. In this framework, a Memorandum of Understanding has been signed between ELSTAT and the Ministry of Infrastructure, Transport and Networks and between ELSTAT and the Ministry of Shipping. Yet, the cooperation is currently exclusively at the technical level. With the Ministry of Infrastructure, Transport and Networks it is limited to the exchange of data on vehicle registration. As a result, apart from vehicle registration data, existing transport statistics available on the website of ELSTAT are updated to 2008 only. Some longer data series are available upon request, but are not published on the website due to shortage of personnel.

Overall, there is the need for a major overhaul of the coverage and scope of transport sector statistics. This need is also stated by ELSTAT and by international bodies, such as the International Transport Forum (ITF/OECD).

Compiling existing material and doing more surveys in areas where it may be needed, such as trucking, will be necessary. Data that need to be centralized include:

- Statistical data;
- Survey data on market and performance;
- Supply Chain Key Performance Indicators (KPIs); and
- Data collected by different ministries, subordinate agencies, ELSTAT, and independent initiatives of private entities or academic institutions.

Short notes on how to use data for specific purposes will also be useful (i.e. how to use data for impact assessments, for identifying policy solutions, etc.).

The following general principles are recommended:

- A better coordination and enhanced collaboration between ELSTAT and the Ministries of Transport and of Shipping;
- Involvement of a pool of academics and research institutes in the monitoring and evaluation framework;
- Set up of permanent "observatory," possibly based in one of the relevant ministries, to compile data and guide reforms with evidence-based analysis; and
- Open data policy (i.e. consolidation of data in one location publicly accessible to stakeholders).

Collaboration on data collection in Greece should be aligned to international standards. The range of actors concerned in the collection and provision of transport data is summarized in Figure 3.2. It is a general presentation of the relationships between these actors. This type of arrangement should be established also in Greece in order to provide relevant statistics. This would also enable monitoring of the progress of achieving the goals of the National Logistics Strategy/Master Plan that under preparation.

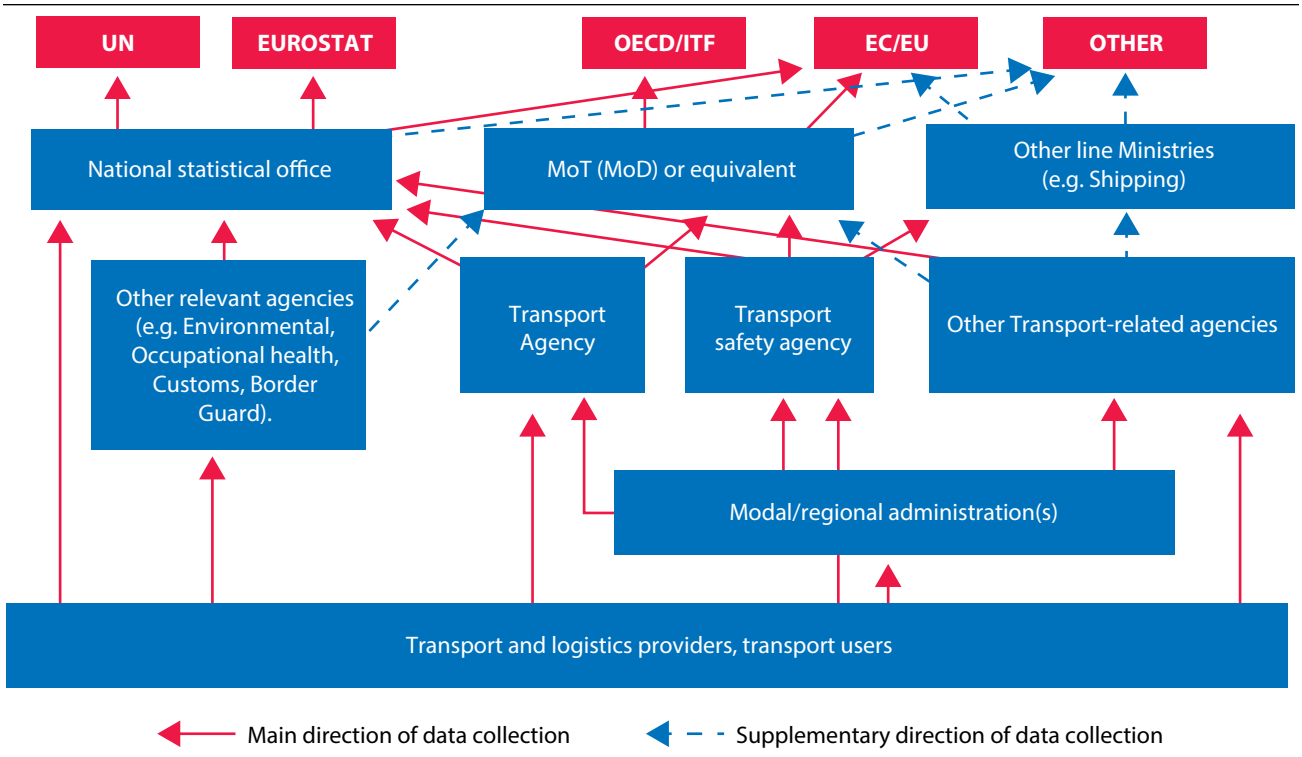
Defining the most effective Key Performance Indicators (KPIs) that need to be monitored is also necessary, and useful to support a National Logistics Strategy. The most cost-effective KPIs and the means of collecting and using them will need to be determined. Although data needed to support this type of work is patchy and related time-series sporadic, there are several potentially available Key Performance Indicators (KPIs) used in other countries as well as in Greece. Some suggestions on the type and scope of such KPIs are presented in Figure 3.3:

Finally, regular survey-based studies on logistics would be needed to monitor the evolution of Greek logistics performance in a timely manner. This is particularly necessary in the short term. In the total absence of satisfactory hard statistical data, surveys will allow monitoring of the developments in the sector and will provide an overview of the business sentiment. As no ready-made templates exist in Greece, the World Bank is preparing such a survey (Fall 2013). It is strongly advised to re-run the survey at regular intervals of two years, at the initiative of the public sector.

Develop a consistent and coherent training and certification system

The availability of well trained personnel is a necessary condition to advance the level of the services offered by

FIGURE 3.2: **Example of transport data collection**



logistics service providers. Certification in logistics and transport jobs may have an important role in the job markets, and can help improve training and quality of logistics at the execution level. The objective is not to create a closed profession, but to help Greek 3PLs to benefit from a system that allows to form professionals with the skills needed in the sector and thereby to meet the best quality standards so as to attract international manufacturers and distributors willing to use Greece as a European/Mediterranean logistics hub.

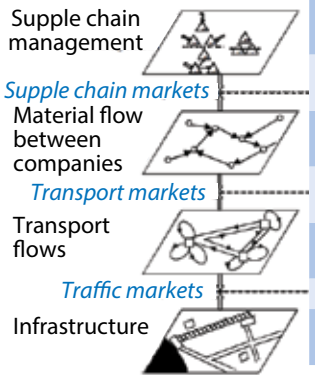
This area is quite developed in other EU countries and Greece can look to its neighbors for examples and technical assistance. Although there are no defined EU standards, the principles are essentially the same for all the main continental European countries. As in those cases, Greece can have professional bodies agree with unions on job definitions (e.g., forklift operator, warehouse managers) and standards. The public sector can implement training in partnership with the professional bodies. Greece can easily move in the same direction as its neighbors in organizing certification and training without developing a sophisticated taxonomy of job categories (France has 180 categories).

A master-plan could help guiding the needs and development of skills in the logistic profession, as well as the boundaries between what type of training and certification should be managed publicly and what should be left to the private sector. There are many types of certification that can be provided in logistics and transport (Figure 3.4). Currently in Greece, vocational and higher education degrees involve institutions that in Greece are almost exclusively public (universities, colleges, institutes). Nevertheless, besides higher and vocational education, a competitive logistics sector also needs high quality vocational training. This should normally involve private sector entities (e.g., professional providers of courses, continued education, and other forms of training) as they have the most up to date know-how of what is required in the market. Figure 1 exemplifies the range of certification schemes used in the logistics and transport sector (not specific to Greece).

In order to account for all training and certification needs in the logistics profession, the Master-Plan should cover all four key aspects highlighted in figure 3.4: (i) vocational training; (ii) higher education curricula for the logistics sector; (iii) voluntary schemes of certification, including for

FIGURE 3.3: A Suggested Framework to Help Define Useful KPIs

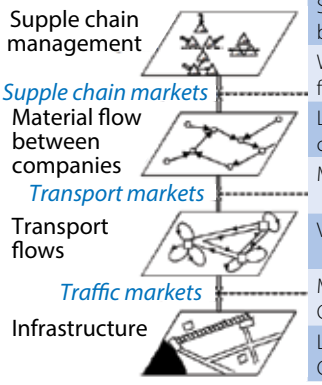
Possible *levels and objects* of observations, with selected sources of international data



Int'l KPIs	Public Sector	Logistics Providers	Logistics users	Other
FDI, WEF, OECD	Taxation, access to markets	Market Structure & Consolidation	Location choice, outsourcing	Environmental, social and safety issues
LPI	Regulatory Framework	Service level	Demand; Own account/ for hire	Availability of staff; work conditions
SCM/Logistics Surveys	Safety & Security	Costs of service	Environmental issues	Skill needs training, education
EUROSTAT ITF	Regulatory Framework	Capacity access to markets	Modal and route choice	Technological development (incl. ITS)
LSCI	Control	Performance	Reliability, capacity	Control skills and equipment
EUROSTAT ITF	Supervision	Access to markets	Cost impact	Accident statitics
EUROSTAT ITF, UN	Provision, EC policies	Availability	Use and need for ITS	Funding, costs; ITS

"Doing Business in Greece" April 2013, The World Bank.
ITS = Intelligent Transport Systems.

Possible *units* of observation



Units by type	Volumes; Flows	Average/Unit Cost	Service Quality	(Economic) Efficiency
Supply demand balance	Supply demand balance	Total Logistics Costs	Satisfaction (by surveys)	Value added, competitiveness
W/H m^2 Service facilities	Monetary and information flows	Service fees, W/H costs	Scope of available services	Inventory levels, ROI
Logistics centres	Tons, m^2, TEU, units….	Landed Cost	Process time of supply chains	Cash-to-cash cycle time, capital tied
Modal shares	Cargo Clauses; Share of Foreign Firms	Freight levels, handling charges….	Transport/ ransport Time	Productivity Profitability
Vehicles	Tons, m^2, TEU, Units…. Frequencies	Vehicle and operational costs	Resilience, Responsiveness	Capacity Utilization
Market shares; CR-rates	Vehicle-km	Port, airport, toll fees; cost and revenue	Throughput times	Productivity Profitability
Length Capacity	Utilization	Maintenance Construction	Reliability Availability	Capacity Utilization

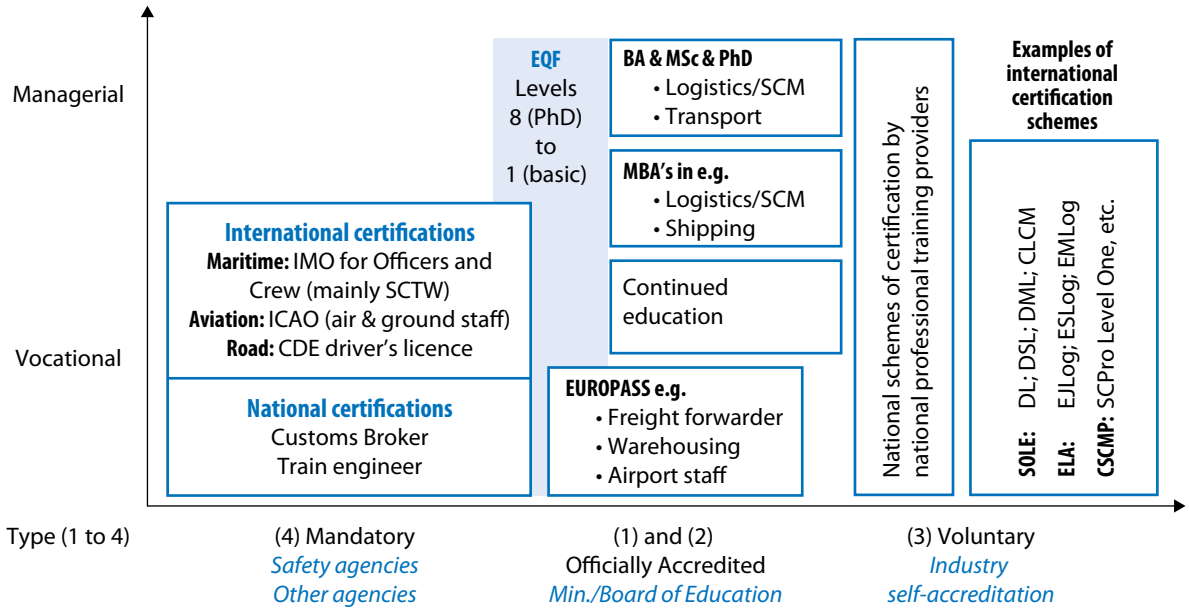
"Doing Business in Greece" April 2013, The World Bank.

existing staff trained on the job; and (iv) mandatory certification for staff stemming from regulatory requirements. In the short to medium term, Greece could develop professional certifications and re-evaluations; and applied training in all supply-chain business processes (loading, handling, transportation, safety and environmental issues) for workers, supervisors, and drivers.

A specific need that was expressed by business operators in Greece was for identifying the most urgently needed professions in logistics. A recent SEV survey identified tasks that are predominantly middle-management. However, interviews, meetings and company visits since January 2013 also highlighted a substantial need for upgrading the skill level of blue collar staff in the logistics industry, both in transport and warehousing jobs. This calls for the need to survey the existing accreditation bodies available in Greece, and for the need to list or survey existing accredited or otherwise high quality entities in this field in Greece.

Collaboration with the private sector is important. Many training and development programs need to be adapted to the in-house needs of companies. A variety of initiatives between the private sector, training schools and universities could be envisaged.

FIGURE 3.4: **Skill and Training Needs Differ by Task and Whether Mandatory or Not**



Notes: (1)=vocational training; (2) higher education curricula; (3) voluntary schemes of accreditation; (4) mandatory certification for staff stemming from regulatory requirements. Acronyms: IMO=International Maritime Organization, SCTW= International Convention on Standards of Training, Certification and Watch-keeping for Seafarers; ICAO=International Civil Aviation Organization; CDE= Certified Driver Examination of the International Driver Examiner Certification (IDEC scheme); EQF=European Qualifications Framework; SCM=Supply Chain Management; SOLE=International Society of Logistics; ELA=European Logistics Association; CSCMP=Council of Supply Chain Management Professionals.

A precondition to the development of a master plan for training and certification in logistics is a thorough survey of existing demand and supply in Greece. Namely the survey should cover the following issues:

1. Obtaining an overview of existing educational supply in public sector institutes and universities.
2. Surveying existing training accreditation bodies available in Greece.
3. Survey existing accredited or otherwise high quality training entities in transport and logistics in Greece.
4. Obtaining an overview of existing private sector training firms, including industry associations in the field.

Based on the survey the public authorities should initiate work to establish a well-functioning accreditation system both in the public and in private sector and assess the feasibility of certifying people with extensive work experience (qualifying diploma).

Additional initiatives may be taken by the private sector. These may include: (i) using existing curriculum requirements and certification standards from other European countries to create a training program with the aid of available EU resources, such as those from the European Social Fund; and (ii) studying the possibility of incentives for locating training centers within reputed logistics centers, such as Sindos and Thriaso.

Encourage the private sector to promote Greek logistics domestically and abroad

A clear strategy with well-defined activities for the promotion of Greek logistics is needed to attract logistics operators in Greece and increase awareness of the importance of the logistics sector domestically. The activity of promotion should be led by the private sector. To date SEV (The Hellenic Association of Business) and EEL (Hellenic Logistics Association) appear to be the most suitable organizations to carry out such a role, given their size and resources. However, coordination with and endorsement by the respective ministries (Ministry of Development and Competitiveness, Ministry of Infrastructure, Transport and Networks, and the Ministry of Shipping) will help ensure coherence and the appropriate visibility to the initiative. Any identification of access to relevant EU funds would also be of help.

Transport industries

Road transport

Greece needs to continue with regulatory reforms related to the trucking industry. The Logistics Permanent Committee has established a dedicated project for a better enforcement of road-side regulations, a first measure to foster a better business environment in the trucking sector. Chapter 3 (Overcoming institutional hurdles) mentioned the ongoing effort by the Ministry of Infrastructure, Transport and Networks to draft a new framework law to simplify and make more transparent the current regulations defining roadside control for freight while also eliminating counterproductive specificities in the major laws regulating this activity.

One major need is to improve the collection of fines and, at the same time, the smooth flow of compliant logistics. Achieving such an objective will not only increase the good reputation of Greek logistics and facilitate the free movement of goods with the rest of Europe, but it will also increase traffic safety, ensure fair competition, and cause less damage to infrastructures. Greek road transport legislation is mostly compliant with EU provisions. Hence such an objective mainly rests on setting in place complementary measures to help implementing and enforcing regulations. Nevertheless, some regulatory improvements are also in order. For example, regulations obliging infringers to pay the fine on the spot (rather than providing a delay of up to five days) is considered a priority measure that alone will already increase dramatically the ability of Greek authorities to enforce road transport regulations.

In conclusion, stakeholders in Greece, under the leadership of the Ministry of Infrastructure, Transport and Networks are on their way to creating a coherent medium-term strategy for transport enforcement. With enabling measures, first improvements may be experienced even in the very short term. The main priority areas for establishing effective enabling measures fall in two main areas:

- First it is suggested to enhance the collaboration between enforcing agencies and in particular between Police and Customs and within the context of the Collaborative Law Enforcement Network for Land Transport (CENT). Collaboration should be based on concrete measures, including the establishment of a shared enforcement grid; the creation of green corridors for trucks controlled at customs and measures of remote and non-invasive border control; the sharing of data collected by agencies; risk management systems and other IT systems; training of enforcement officers through shared e-learning facilities and sharing of training personnel (through the involvement of the National Training Centre for Public Government—EKDD); sharing of equipment for roadside checks; common closed mobile payment circuits for collecting fines; etc.
- Second it is suggested to enhance international collaboration, particularly with neighboring countries, both EU and non-EU members. This includes building up, joining or empowering existing EU-funded regional development initiatives on enforcement. An example is the existing Greek-Bulgarian contact center in Promachonas that includes the participation of the customs and police authorities of the two countries and focuses on all matters relating to illegal activity. Additionally, this could include reproducing initiatives that have been successful elsewhere (e.g., the CASH initiative on safer transport of freight in the Baltic Sea).

Regulatory interventions in other areas are also necessary. Such reforms will help level the playing field on which Greek operators compete with foreign companies. While keeping in mind the high political sensitivity of reforms in this sector, some potential remedial actions include the following short and medium term measures:

- Simplify the process of truck licensing and change of license (short-term measure);
- Simplify the process of truck change of property (short-term measure);
- Simplify legislation on "commercial account," allowing the latter to benefit from more favorable fiscal, operational, and licensing conditions, as it already happens for "own account" (short-term measure);
- Eliminate that rule that limits registration for each tractor to a maximum of three trailer units (short-term measure);
- Streamline the process of establishing a new road transport company based on the 2010 law (short-term measure);
- Review the rules for the transport of dangerous goods from the mainland to the islands (medium-term measure);
- Impose a compulsory revaluation and audit of existing vehicles and carriers for safety and environmental protection (medium-term measure);
- Study the possibilities for providing incentives, compatible with EU principles and the MOU, to invest in envi-

ronment-friendly trucks that would comply with increasingly strict EU standards (short-term measure)

- Foster consolidation (foreseen by Law 3887/2010) to international versus domestic operations (medium-term measure); and
- Ensure full compliance with existing EU mechanisms, for example on restriction of cabotage in parallel with defining and enforcing real measures for reforming the sector and with fiscal enforcement (medium-term measure).

Rail transport

Greece needs to take steps to develop its rail system into a more freight-friendly and environmentally-friendly form of transport. This will help it integrate into the European rail network and enhance its competitiveness as a trans-shipment gateway for Eastern and Central Europe.

TRAINOSE should focus on attracting new business, including pursuing agreements such as the recent contract with Hewlett-Packard. In addition, TRAINOSE should:

- Increase its reliability and commercial orientation to freight customers. To do this, it may have to design or remodel facilities for the loading and unloading of freight; and
- Consult with users—especially freight users—when developing or implementing investment plans.

The government should:

- Privatize responsibilities that can be easily separated from the main operations—such as has been done for the "Rolling Stock Maintenance SA", which is expected to improve efficiency while reducing costs;
- Study the possibilities for providing incentives to encourage more private operations, in general, such as the running of third-party trains;
- Improve the quality of maintenance by corporatizing and considering a public-private partnership (PPP) for maintenance activities under OSE;
- Accelerate plans to electrify the network, and in particular the line between Athens and Thessaloniki; and
- Prioritize the development of EU Transport corridor from Athens to Thessalonica and through the Balkans.

Reforms of rail in Greece can get a boost from the EU's fourth rail package. The European Commission proposed its fourth railway package on January 30, 2013, with a target to fully liberalize rail transport in Europe, including national passenger traffic, from December 2019. The liberalization of domestic passenger traffic represents the culmination of a far-reaching initiative launched over a decade ago, when the first rail package opened international freight services to competition in 2003 (national freight services followed in 2007 and international passenger services in 2010). The fourth package completes the process. For now, only the UK and Sweden have completely opened up their national markets and there is limited liberalization in Germany, Austria, the Czech Republic, Italy and the Netherlands. The issue of liberalization is highly politicized and the short-term implications are difficult to determine, but this EU-wide policy direction also affects Greece in the medium to long term.

Ferry shipping

Coastal and short-sea shipping—mainly ferries carrying passengers, cars and trucks—is crucial to Greece and an important part of its logistics. The government is currently spending about 93–94 million euros per year in subsidies to maintain shipping connections to the islands, and is therefore also looking for ways to allocate these funds and the available resources to serve the islands in the best possible manner.

Proposals to be further assessed include:

- Liberalize freight transport between the mainland and the islands (short-term measure).
- Lift restrictive manning requirements, in particular those outside the minimum routing obligations (short-term measure).
- Optimize domestic island service in ferry shipping.
- Exploring the viability of the hub-and-spoke concept in ferry shipping, with Piraeus as the main node (medium-term measure).
- Cargo handling in small ports (medium-term measure).

Ports

Greece has the potential to serve not only Greece but the wider South-East European region. It should take note of the successful COSCO/PCT business model in Piraeus when it considers modernizing its ports. While port services are traditionally an area of strength for Greece, its reputation has been recently tarnished by the long-lasting and repeated strikes in many locations across the country.

Measures to increase private participation in Thessaloniki, as was done in Piraeus, would reinforce the commercial credibility of the port and the likelihood of partnerships with private shippers and operators. Parallel commercialization strategies in both gateways are not exclusive but are mutually reinforcing, as they increase the number of options for shipping lines, railways operators and shippers, while avoiding giving monopoly power to one port.

Greece should take advantage of Thessaloniki's ideal location and of the successful recent development of Piraeus to establish a two-pronged gateway strategy for access to South Eastern and Central Europe. It should look at opportunities to involve additional major players in ports operation and shipping. Propositions to do so, including via further privatizations, should be assessed.

Logistics industry

Legal and regulatory changes to enhance investment in modern logistics facilities

Reforms to modernize the logistics industry require appropriate design of government regulations. In particular the steps to become a 3PL should be clarified; the provisions in Law 3333/2005, for the establishment of logistics parks, should be improved by bringing in innovations from Law 3982/2011; the licensing process for warehousing and logistics facilities should be simplified and delays in licensing brought to a minimum; health and safety regulations should be updated by allowing whenever possible the operator to increase flexibility by introducing active instead of passive safety measures; finally, the many smaller, un-necessary barriers should be eliminated. **All of the suggestions to improve the licensing of warehousing and logistics facilities discussed below should be coordinated with the broader investment licensing reform efforts currently being undertaken by the Ministry of Development and Competitiveness.**

To implement those changes, Greece should develop a new framework law that encourages the modernization of 3PLs and favors the use of outsourced logistics over the current tendency of many industrial and trade enterprises to handle these activities in-house. This law should not define standards in terms of surface, height of building, or land coverage. Instead, the law should be a recapitulative instrument that will help define and regulate properly logistics activities. It should cover the following areas:

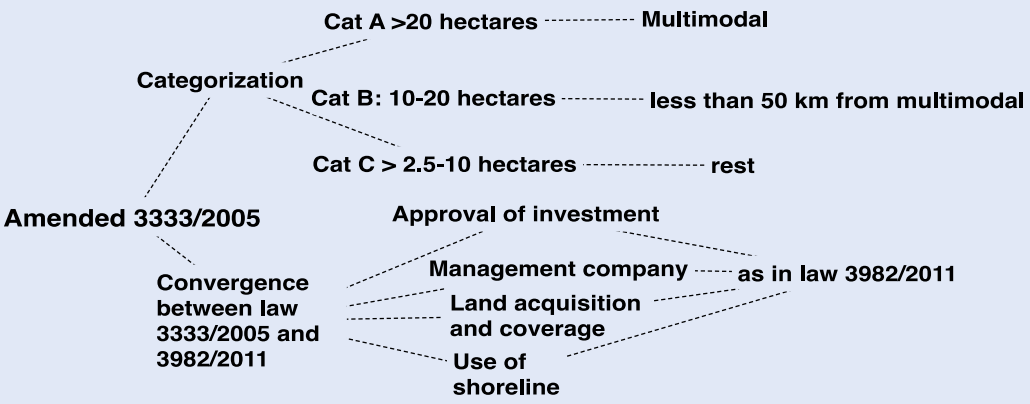
1. Define logistics in terms of the activities and interventions of various professions.
2. State the condition of development for organized logistics parks, as private or PPPs. Amend the current provisions in Law 3333/2005, to incorporate improvements and innovations from Law 3982/2011, covering business parks, as suggested by the LPC and the relevant working groups.
3. Streamline the regulations for the establishment and operation of 3PL warehousing, independent commercial and industrial warehouses, and multimodal transport.
4. Clarify scope, taxation, and conditions of operation of logistics services and required qualifications.
5. Link to legislation on the safety and security of establishments.
6. Link with elements of the transport legislation.
7. Cancel a few existing measures that have no clear justification and are not found in most EU countries, such as:
   - License plates for forklifts used in confined facilities.
   - Compulsory insurance for merchandise transported in Greece (redundant with truckers liability insurance).
   - Separate permit for the installation of the generator. This could be simplified or automatic when the generator is included in the building permit and the environmental impact study.

The law should establish the condition for the creation of logistics establishments and organized logistic parks and for the exploitation of logistics services. It also should describe the advantages and the conditions of service provision in such establishments and parks. Finally, it should determine the regime of the delivery of service and the role of the state, of the regional authorities and of the municipalities in the field of logistics.

The envisioned development of logistics activities should be secured by institutionalizing the model of private-public sector collaboration currently under the umbrella of the Logistics Permanent Committee. Established in the framework of the current Logistics Permanent Committee, a pragmatic and effective forum for public-private partnership is an important ingredient of a successful strategy for the development and growth of logistics in Greece. See Appendix 1 for a description of the scope of the work of the Committee.

The establishment of new logistics parks should be simplified. The two main areas of improvement consist of a new categorization of business parks and the requirements of ac-

FIGURE 3.5: **Proposals of simplification for the establishment of organized logistics parks**



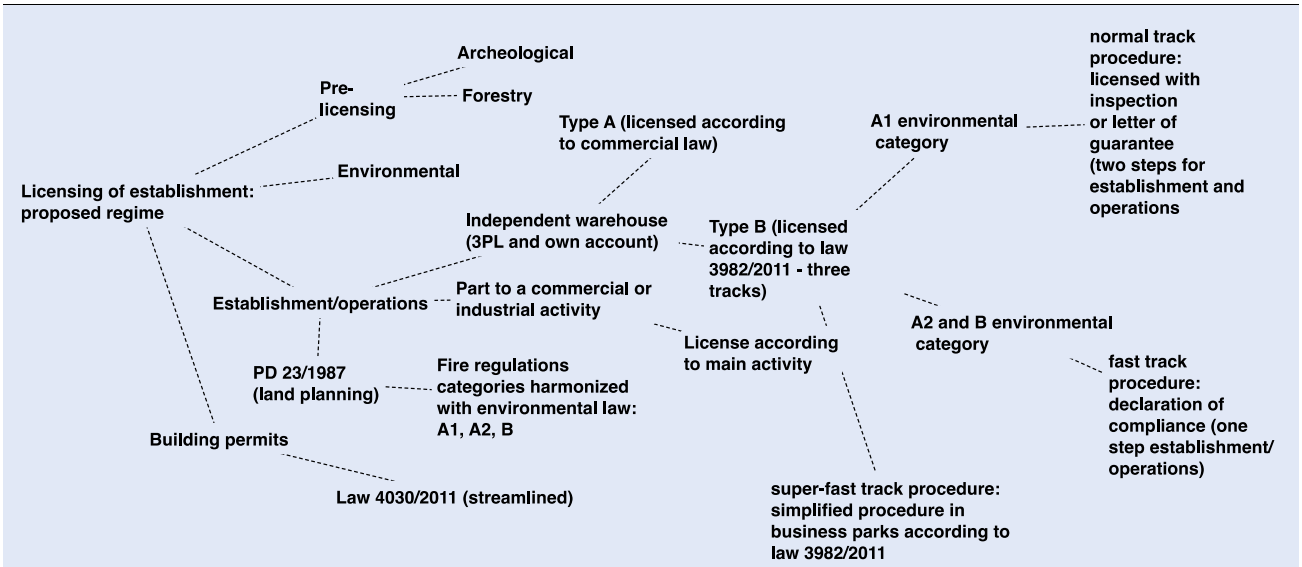
cess to multimodal facilities; and in improving some restrictive provisions in Law 3333/2005 with good practices from Law 3982/2011 on business. In terms of new categorizations, we propose three categories. Logistics parks larger than 20 hectares should have direct access to multimodal facilities; parks between 10 and 20 hectares should be allowed at a distance of maximum 50 km from multimodal facilities, and smaller parks should not be required to have multimodal requirements. Turning to the improvement of the provisions in law 3333/2005, it is suggested to align them to the provisions stated in Law 3982/2011 concerning approval of investment, management company, land acquisition and coverage, and use of the shoreline. These proposals, which are summarized in figure 3.5, have been discussed with the LPC members and the relevant working groups. Their implementation is considered useful by stakeholder to facilitate new investments, once economic growth will resume.

The flexibility existing in current legislation of establishing warehouses under different regimes accommodates a diverse range of warehouse uses, but ambiguities and complexity should be eliminated. Streamlining the procedures for licensing under different regimes (industrial, 3PL/freight transport, and commercial) and replicating best practices and innovations from the Law 3982/2011 reform of the industrial sector will provide certainty, faster procedures and benefit growth in the sector. Consolidating the licensing under a single regime is not the priority. The possibility of licensing warehouses under regimes specific to their use is positive if it reflects the needs of different types of economic actors. However, ambiguities as to the licensing regime that applies to specific case, different processes and duplications should be eliminated. To the extent possible, procedures and parameters from various licensing regimes should be harmonized.

Proposed simplifications concern the establishment and operation phase of licensing. First, it is suggested that licensing should transition to a fast track system based on "declarations of compliance" and one stop for establishment and operations licensing for most warehousing facilities, or in other words, for all establishments with low or medium environmental impact (e.g., A2 and B environmental category). Higher environmental impact (A1) establishments will instead be licensed in two steps, following an inspection or after provision of a letter of guarantee. Second, licensing under this regime would concern all independent warehouses (3PL and own account). Warehouses that are part of a commercial or industrial activity would instead be licensed according to the main activity, and warehouses in business parks or logistics parks under the fast-track procedure already envisioned for establishments in business parks (Law 3982/2011).

Fire and safety regulations may also be improved by providing more flexibility to operators and from moving from passive to active measures of protection. Scope for regulatory improvements lies in two areas: (i) aligning regulations with more recent standards already applied in other EU countries; and (ii) introducing additional safety measures currently not applied in Greece (e.g., on storage and anti-pollution measures). The regulatory framework for anti-fire measures is old dating back to 1988 (Presidential Decree 71). While a proposal from the technical chamber

FIGURE 3.6: **Proposed simplifications of licensing for warehouses**



of Greece on new horizontal legislation on anti-fire requirements currently exists in Greece, such legislation does not necessarily respond to some of the key needs of logistics facilities. Few critical improvements on the current legislation on fire regulations can instead already greatly help operators in the logistics sector. In particular, abolishing the reference in the law to the volume of fire compartment would give the operators the necessary flexibility to organize warehousing more efficiently. A clearer and enhanced legislation on active protection measures should also be introduced. The proposed changes are in line with EU standards.[22] If the new regulation is implemented, it would ideally be automatically applicable to new facilities, but applicants enlarging or remodeling existing facilities would be given the choice between the old and new regimes (grand-fathering principle).

The private sector lamented high local taxes and fees. The solution for obtaining adequate services relative to fees and taxes paid will have to come from collective action and the establishment of an effective dialogue between the private sector and the local authorities. The national governement is not likely to be in a position to over-rule local government on these issues (except for activities located within business parks or freight villages). The operators of the sector may have bargaining-power with local authorities if they present their predicament in an organized manner and identify solutions in which each side finds value for money (e.g., promise to hire local workforce in return for key services).

The business sector suggested designating protected areas for logistic zones. The proposals put forward by the business sector aim at reproducing some of the favorable conditions of the successful example of the Sindos zone in Northern Greece and at facilitating the reconversion and requalification of existing informal or semi-formal logistics clusters. The aim is also to overcome some operational problems and taxation issues. The proposals include: characterizing logistic zones as areas of direct economic interest, thereby bypassing the local regulatory constraints; the creating of a zoning category for logistics; and consolidating licensing for logistic activities under a single regime.

In addition, the national government could advise the local governments in adjusting warehouse size-regulations to be better aligned with EU standards. This might help to modernize the sector and stimulate more investment in automated warehouses and other more sophisticated warehousing activities.

22 Spelled by the EU rule 1510, which relies on different principles, is that "the capacity should depend on the means of fire extinguishing and fire protection used, as well as the type of products stored or handled, regardless of whether the warehouse is single-story or multi-story. In practice, the surface of a fire-cell can be up to 6,000 m2 with automatic sprinklers, 3,000 m2 without. There are also rules concerning distances to property limits, firewall design (above roof) and emergency exits."

The specific case of small, informal logistics operators in Eliaonas is complex and needs more study. A solution suggested by some stakeholders in Greece is to encourage companies to relocate from Elaionas to more convenient areas. One possible area is Thriasio, where there is ample empty capacity in the logistics centers of OSE, the rail infrastructure manager. The separation of ownership and operation make the problem difficult; the current landlords in Elaionas would have to close their facilities once the tenant companies move. The other extreme—legalization of informal businesses—would be not advisable either. The Logistics Permanent Committee and its working groups are investigating the pre-conditions and incentives for an efficient solution of the Elaionas exception.

Reduce deviations from mainstream EU practices in supply chain management

Identifying which deviations are the most binding constraints in supply chain management should be the focus of one of the work-streams of the National Logistics Committee. However, the government may want to consider the following three measures in the short term:

- Streamline or suppress mandatory declaration of movements of merchandise in warehouses;
- Implementation of the mandatory EU regulation on fruit packaging; and
- Suppress compulsory insurance for merchandise transported in Greece.

International trade and transit issues

Reforms in trade facilitation and transit measures would best focus on facilitating supply chain management and reducing deviations from mainstream practices applied in other EU countries. A close link needs to be established between the three broad initiatives of the Greek Government in the area of international trade and transport: the National Logistics Strategy, the Trade Facilitation Strategy, and the customs modernization program. Some reforms are already part of the Trade Facilitation Strategy under MOF but are important components of a comprehensive National Logistics Strategy.

Suggested improvements relating to customs issues

Coordinate with the Trade Facilitation Strategy and the customs modernization program under the MOF to ensure synergies and avoid confusion and duplication. The Trade Facilitation Strategy includes the implementation of a Single Window, better risk management, creation of a trade portal and inclusion of import-friendly measures. Other broad issues that have been identified need to be addressed as well. Below are the priorities:

The PCT's more efficient implementation of customs procedures may best be integrated into the National Trade Facilitation Strategy. In a sense, PCT operates an embryonic single window, which could benefit from and should be taken into account for single window project (delivery 2015) of the Trade Facilitation Strategy.

Border controls by various agencies need to be streamlined, especially those for phyto-sanitary controls. This might require a continued presence of these agencies in the terminal to avoid delays. Streamlining those controls within the customs clearance is a high priority in the National Strategy.

Physical inspection for non-EU imports could be reduced and rely more on effective risk management. The National Strategy prioritizes risk management to rationalize the inspection practices.

Hours of operation could be expanded, following the assessment of the pilot initiatives in Piraeus and Athens International Airport. There is a rationale for expanding customs' hours of operation, including on weekend, especially for activities such as port gate or border activities that otherwise can block the movement of vehicles. The problem of extended hours for processing activities will become less relevant with the implementation of full automation and streamlined risk management that is planned in the National Trade Facilitation Strategy. It may not be justified to operate offices 24 hours a day, seven days a week, because it is unlikely that there is sufficient demand. Given apparent personnel constraints in customs, those questions go beyond the current scope of work and should be part of a broader customs modernization strategy.

The new law on customs brokers could be further communicated, and if needed clarified. This will allow traders to handle customs procedures directly by developing their knowledge and confidence in handling the system and a smoother transition into electronic declarations as required by the EU customs standards.

Special regimes need to be well-utilized. The promotion of such regimes and the capacity of customs could be useful-

ly strengthened. Training of custom personnel to certify the operators who can benefit from the simplified regimes could where needed.

The bonded warehouse regime needs to be improved (medium term measure). The current bonded warehouse system is not satisfactory, neither from the perspective of implementation of the EU customs code, nor from a fiscal standpoint. Customs should implement an IT interface to be able to monitor bonded inventory in an effective and non-intrusive way by accessing the inventory management system of the operators.

Promote the use of EU customs procedure no. 42 for the management of VAT for transit trade. The private sector laments the Greek management of VAT collection for goods in transit to other EU destinations. Enhancing the use of special regime 42, granting VAT exemption for goods on "immediate dispatch-intra-community delivery" to another Member State and leaving payment of VAT to the destination Member State, would allow Greece to compete effectively with the Netherlands.

References

Anderson J. and E. Van Wincoop. *"Trade Costs"*, Journal of Economic Literature 2004.

Arvis J-F., Duval Y., Utoktham C., and Shepherd B. *"Trade Cost in the Developing World"*, Policy Research Paper WPS6309, The World Bank 2013.

Arvis J-F, Mustra M.A, Ojala L., Shepherd B., Saslavsky D. *"Connecting To Compete: Trade Logistics in the Global Economy"*, The World Bank 2012.

European Commission (2013). *"The Second Adjustment Programme for Greece—Second Review"*, European Economy Occasional Papers 148 (May 2013).

Siamas I., Iakovou E. & Vlachos D. *"Strategic Mapping of a National Logistics & Supply Chain System: The Case of Greece, Laboratory of Quantitative Analysis"*, Aristotle University of Thessaloniki 2012.

Task Force For Greece Mission Report, *"Facilitating Exports Procedures in Greece"*, Second Quarterly Report (March), European Commission 2012.

UNCTAD, *"Review of Maritime Transport"*, United Nations 2012.

WEF, *"Enabling Trade Valuing Growth Opportunities"*, Geneva, World Economic Forum 2013.

Appendix 1: The Logistics Permanent Committee: scope of the work and collaboration with the World Bank

The Logistics Permanent Committee

Fostering a friendly business environment for the logistics sector is a complex task, with many technical components, different levels of government involved, and legislative power under the responsibility of different and—sometimes—independent bodies. Ultimately, it will require legal and institutional changes that will affect people with a diverse range of interests—from business-owners to consumers to public sector employees. Its design and implementation requires a well-considered, government-led strategy, informed by stakeholders in both the public and private sectors. It also needs to strike a difficult balance between continuity and coherence and flexibility.

With the aim of designing an effective and viable strategy, the Ministry of Development, Competitiveness, Infrastructure, Transport and Networks (currently split in the Ministry of Development and Competitiveness and the Ministry of Infrastructure, Transport and Networks) has been working with a group of stakeholders who are representative of the industry to analyze a wide range of issues relevant to improving the logistics environment. In order to create an appropriate forum for the discussions the Minister of Development has established a Logistics Permanent Committee (LPC). First convened on March 19, 2013, the Logistics Permanent Committee had met eleven times by the end of September. The committee is chaired by Mr. Athanasios Ziliaskopoulos, president and CEO of TRAINOSE—Greece's state-owned train company—and professor of mechanical engineering at the University of Thessaly. The committee's broad objective is to formulate a national logistics strategy for Greece, a project that involves reducing barriers and costs for imports, export and transit, as well as for the domestic market, and facilitating the operations in all of these. The World Bank supported the initiative offering analytical and process advice. In this context, during the committee's meetings a number of experts informed the Committee's members on subjects ranging from road-side truck inspections and warehouse issues to national-level logistics planning. Figure A1.1 provides an overview of the main roles of the Government (i.e. Ministry of Development and Competitiveness and Ministry of Infrastructure, Transport and Networks), the private sector stakeholders, and the World Bank in the process established. This is not a new approach; nearby Turkey, Ireland, Sweden, Finland, and Germany are good examples of countries that forged successful logistics-improvement strategies through consultative processes with strong participation of the private sector.

The current approach has taken into account lessons learned in two previous attempts by the Greek government to form National Logistics Committees that did not lead to reforms

FIGURE A1.1: **Main roles of the Ministry, private sector and The World Bank in the logistics strategy work**

Policy check & Implementation	Business & Reality check	Analysis & Advice Process check
MoD and MoIT	**Private Sector & Stakeholders**	**The World Bank**
Need for a feasible Strategy & Action Plan on Logistics Leads and oversees the work of the LPC Channels the proposals by the LPC into policy Ensures political support on feasible ST & MT actions Outcome: Strategy and Action Plan for Implementation	Voice through the LPC Supports MoD and MoIT on: • Major themes • Projects for specific themes Distinction between: • Short term (ST) • Medium term (MT) No permanent structure	Provides analytical and process support Expert team assigned for the project; Contract with the Government for year 2013 Takes part in: • LPC meetings • Policty reform design In-depth analysis by mid-2013

Note: LPC=Logistics Permanent Committee; MoD=Ministry of Development and Competitiveness and MoIT=Ministry of Infrastructure, Transport and Networks.

of the logistics sector (See Box A1.1 for a summary of the previous experiences of National Logistics Committees in Greece). In particular, the recently-formed Logistics Permanent Committee (LPC) has actively involved individual, large players in the sector, in addition to association representation. The advantage of this approach is to identify pragmatic solutions that make sense from a business point of view, to allow the different views to be represented in the discussions in a transparent and balanced manner and to avoid capture of the reform process by operators who may have thrived under old, inefficient systems.

Ultimately, the Logistics Permanent Committee (LPC) should become a genuine consultative mechanism that allows the Ministry of Development and Competitiveness and the Ministry of Infrastructure, Transport and Networks—and the government as a whole—to effectively consult with the private sector on improvements to the logistics environ-

BOX A1.1: Previous Experiences of National Logistics Committees in Greece

This box summarizes the experiences with the first Logistics Committee (2009) and with second Logistics Permanent Committee (2011–2012) in Greece. It is based on evidence presented at the first meeting of the newly established Third Logistics Permanent Committee (February 19, 2013) by the Chairman, Professor Athanasios Ziliaskopoulos.

The first LPC

The first LPC was established in July 2008 (Chaired by Mr. Vamvakopoulos). It had the following agenda: to develop a national strategy for logistics in Greece; to revise and improve Law 3333/2005 for freight parks; to develop the legal framework for logistics in Greece, including on issues related to the trucking industry; and to promote Greece to become the center for logistics and trans-shipment in Southeast Europe.

Its main contributions included:

1. A proposal for a hierarchical structure of logistic parks in the following locations: Thriassion Pedio (Attica), Thessaloniki, Patra, Alexandroupoli, Igoumenitsa, Thessaly (between Volos and Larissa), and a second freight village in the Attica region.
2. Quantitative and qualitative criteria for setting up a logistics park.
3. Acknowledgement that legal issues for cargo transportation in Greece musts be streamlined.
4. The need for logistics education to be tackled by the ministry of education.

The Committee stopped working in the summer of 2009, as new national elections were announced.

The second LPC

The second LPC was established on November 2010 (chaired by Prof. Athanasios Ziliaskopoulos). It started its activities in January 2011, with the following agenda: to develop an integrated framework for the logistics sector in Greece that effectively considers all aspects of the supply chain; to revise Law 3333/2205 related to freight villages; and to develop legal instruments to settle existing poorly organized legacy freight forwarding and warehousing facilities.

There was broad agreement on the following assessment of the state of logistics in Greece. Logistics is a business activity that concerns the private sector and as such the regulatory interventions from the government must be limited to the absolutely necessary level. Logistics is not recognized as an industry in the Greek legislation and the profession is undefined. There is no land use allocation for logistics in the national, regional, and municipal spatial plans. There are very few organized logistics parks; mostly small legacy freight-forwarding facilities with suboptimal organization. Law 3333/2005 is practically ineffective and was never used by the industry. Inland freight in Greece is transported by private use trucks, public use truck, rail, and intermodal. The distribution of freight to these modes however is not logical, mostly relying on the private truck use, creating enormous inefficiencies in the supply chains (domestic and international). Existing small freight forwarders offer little value-added services to the industry.

The second LPC provided suggestions on two main issues: organizational issues of the profession; and spatial organization of the facilities (warehouses and freight centers).

Issues discussed in the meetings of the committed on the organization of the logistics profession included the following: Should one license for both freight-forwarding and trucking be allowed? What should the certification process for a freight forwarder or 3PL should be? Should it be the government's responsibility to train and certify or could it be an industry based initiative with an oversight from the government? However, the LPC did not reach firm conclusions on these issues.

On spatial issues the PCL worked on a two-pronged approach: it discussed changes to the legislation regulating the establishment of new facilities; and it suggested regulatory changes to settle existing legacy inefficient facilities.

On the new facilities, substantial time was spent on analyzing the Law 3333/2015. It was recognized that this law was a significant piece of legislation and an important step in an attempt to set an order to the evolving disorder of facilities being established in various locations in the country and especially in Attica along the newly then built highway Attiki Odos, mostly on land characterized as agricultural (most of them operating in a legal "grey" area). The law aimed at creating a concentration of logistics activities to few especially designed and well organized facilities, to promote intermodality, to maximize utilization of trucks and balance the modes with emphasis also on rail connection (for larger facilities). Nevertheless the law was never used. Some of the possible reasons for the lack of interest from the industry to use the law were identified. One main reason identified was that the law was mostly designed for larger facilities, thereby limiting its applicability; therefore the LPC focused its discussions on how to make the law amenable to the creation of smaller facilities that serve medium urban areas (all areas outside Athens and Thessaloniki). Other issues relating to new facilities that the LPC discussed included: limits on the height of the building (and the volume) as well as fire compartment restrictions; feasibility of provisions to make forced acquisition of the land by unwilling sellers; and requirements of proximity to rail and port services. The LPC also analyzed the Law 3982/2011 for Business Parks concluding that in many ways provided a better instrument for building logistics centers.

Turning to the existing facilities, this was recognized as the most difficult problem that Greek logistics faces. One concept that the LPC discussed was the feasibility of developing a legal instrument for legalizing informal logistics parks against subject to improving the facilities themselves.

The Second LPC ended its works in August 2011, when a new Minister of Transport was nominated.

ment. To this end, the committee, supported and advised by the World Bank, has embarked on a serious work program consisting of parallel sub-programs of reforms, with strong ownership from the private sector and other stakeholders.

The LPC's seven working groups are addressing specific, technical aspects of the reform process. The groups are designed to incorporate viewpoints from the industries that will be affected by reforms as well as academic and technical experts on the subjects. Three of the groups (ST-1, ST-2 and ST-3) are working to identify short-term measures, or "quick-fixes" to problems hindering Greece's logistics performance. Four of the groups (MT-1, MT-2, MT-3 and MT-4) are working to identify medium-term measures that require more planning and preparation. The following sections describe in more detail the specific responsibilities of these working groups and the progress they have made to date. Each sub-group has been assigned areas of interest, within which the groups have identified efficiency problems and solutions that make sense from a business point of view. The guidelines for the working groups are presented in Box A1.2, while Figure A1.2 summarizes the main areas covered by each of the working groups as of July 2013.

Working groups of the Logistics Permanent Committee

Regulatory barriers in logistics service provision and supply chain management

Two working groups were charged with identifying short-term measures to reduce the barriers to efficient logistics service provision and supply chain management. Working group ST-1 focused on the identification of "Regulatory barriers hampering the development and integration of logistics centers" and working group ST-2 on "Regulatory barriers increasing costs to manage supply chains in industrial and retail businesses."

BOX A1.2: Guidelines for the work of the project groups and sub-committees of the LPC

The following guidelines were provided to the working groups to facilitate their works.

1. The working language and the meetings of the working group sessions should be in Greek in the meetings in which no international experts will take part. The key findings, outcomes, and action points of each session will be shared with the LPC and with the World Bank (WB) team in a timely manner.
2. Inquiries and requests by the working groups for support from the WB have to be recorded and forwarded to the World Bank team (e.g., requests on best practices, experts).
3. Each session of the working group would ideally
   a. Deal with subjects along a concrete and clearly communicated step-by-step approach, for example:
      i. Session 2: Agreeing on focus topics and their descriptions.
      ii. Session 3: Discussion of possible solutions, inviting all stakeholders and experts needed.
      iii. Session 4: Discussion of policy options (e.g., drafting a new law) for implementation.
   b. Be concluded with the following outputs:
      i. Action points and deliverables, including responsible person and deadline for delivery. One example of this is a report that gives identification of expertise required to advance works, as well as deepens assessment and modalities to tap on this expertise. Another example is an invitation of specific local or national level agencies representatives, technical departments, private experts, international companies, or other stakeholders to attend the working group sessions or other similar events.
      ii. Agreement on a date for the following meeting.
      iii. Agreement on how to split work within the working group.
      iv. Indication of additional input needed from World Bank/Taskforce for Greece (TFGR)/ Ministry of Development, Competitiveness, Infrastructure, Transport and Networks (MoD) / Logistics Permanent Committee (LPC).
4. The participation of officials from the public sector would also best be monitored (the secretariat in coordination with the chairman), to ensure their participation to all meetings where their presence is needed.
5. Re-evaluate in each meeting if the representation from certain ministries (e.g., the zoning / spatial planning issues is needed and at what stage of the process).
6. The MoD will monitor the sessions and their outcomes according to a set timeframe and communicate with the World Bank and the Chairman of the LPC to allow the latter to follow the process and troubleshoot wherever necessary.
7. Weekly Skype sessions between the MoD, the chairman of the LPC and the World Bank will be organized to review progress of each group.
8. The secretariat of the group will be responsible for:
   a. Writing the minutes of the meeting.
   b. Writing the document with the action points, responsible person and deadline.
   c. Sharing the minutes and action points with the chair of the project team for approval prior to circulating to the group.
   d. Keeping track and send reminders about deliverables.
   e. Keeping an up to date folder with all the documents relevant to the work of the group. The folder will be made available on an internet based shared platform accessible to all participants of all project groups.

FIGURE A1.2: **Emphasis of work by the Logistics Permanent Committee and its short and medium term working groups by May 2013 in view of the issues outlined by The World Bank team in February 2013**

		List of working groups, as per May 2013						
		LPC	ST-1	ST-2	ST-3	MT-1	MT-2	MT-3	MT-4
Issues or measures identified by The World Bank Team's Preliminary Assessment, Feb. 2013: See also Appendix 1. Matrix of proposed actions		**The Logistics Permanent Committee**	Regulatory barriers hampering the development and integration of logistics services; esp. licensing in trucking, forwarding, 3PLs	Regulatory barriers increasing cost to manage supply chains in industrial and retail business	Stimulating professionalism in the logistics industry: Enhancing professional standards	Operational pre-conditions for logistics centers	Capacity of enforcing of transport regulations	Enhancing competitiveness - Operationalising of the National Logistics Strategy	Mapping, Monitoring and Evaluation
Measures horizontal to the entire value chain	Preparing a National Logistics Strategy for competitiveness	■	■	■	■	■	■	■	■
	Simplify Procedures and Improve Communication to Stakeholders and Local Enforcers	■	■	▪		▪	■	▪	
	Implementation and enforcement: An organizational and capacity building problem	■			▪		■		
	Establishment of a Monitoring and Evaluation framework	■							■
Improving infrastructure performance	Improvement in rail services	▪						▪	▪
	Port developments to serve Greece and the wider region	▪				▪		▪	▪
	Facilitate connection to ports and rail networks of private companies	▪	▪					▪	▪
Sectorial measures along the Supply Chain	Unlocking modern logistics operations and services	■		■	■			▪	
	Warehousing and logistics centers	■		■	▪	■			▪
	Restrictions for 3PLs on own public fleet & certification requirements	■	■			■			▪
	Supply chain management	■	▪	▪	▪	▪		▪	▪
	Trucking	■	▪		▪		■		▪
	Transit , incl. The role of Customs and other Border Agencies	■	▪					▪	▪
	Rail (freight) transport provision	■							▪
	Air (freight) transport								▪
	Transport of Dangerous Goods						▪		
	Trade Facilitation ***(falls mainly under the separate TF Strategy)***	▪	▪						
	Port service provision ***(partly under a separate Ministry)***	▪							▪
	Short Sea Shipping ***(under a separate Ministry)***								▪

■ Main emphasis ▪ Mainly covered/some emphasis ▪ Somewhat covered □ Limited or no coverage

The groups have outlined a set of barriers in land use, licensing and some technical specifications of warehouses as seen from the point of view of logistics service providers (typically the third-party logistics, or 3PL, type of providers. These fall under the following headings:

1. Land Coverage in Industrial Areas such as Thriasio, Tanagra, and Sindos (Thessaloniki).
2. Technical Specifications for Warehouses.
3. Technical Specifications for Fire Compartments.
4. Municipal Fees in Industrial Areas, such as Thriasio, Tanagra, and Sindos (Thessaloniki).
5. Licensing Issues of Warehousing.
6. Licensing Issues and Procedures for buying and selling trucks.
7. Other Issues.

The ST-1 group also compiled a detailed inventory of permissions and approvals needed for constructing and operating an industrial warehouse in each of the three main industrial locations (Thriasio, Tanagra, and Sindos). The purpose was to document the complexity of the process of approvals.

They concluded their work in May 2013, delivering an analysis of each of the above issues and proposals for solution.

Stimulating professionalism

A third working group (ST-3; which broke off from MT-3) is considering short-term measures that could help Greece enhance professional standards in the logistics sector. This group will look at training and certification issues. Some possibilities include linking training to European certifications or other externally-developed criteria.

Pre-conditions for logistics centers

A fourth working group (MT-1) is looking into medium- to long-term issues with land-use regulation and establishment of logistics centers. The group has been building on the findings and conclusions of the second LPC, as summarized in Box A1.1. Part of the focus of the working group is on the regulatory framework that applies to warehouse complexes and logistics centers. This topic has turned out to be rather problematic to solve, and this group had to wrestle with a host of complex and partly unused legislation that applies to a range of warehouses and logistics centers.

Some of the more specific issues the group discussed include the following:

- Development of new logistics centers (freight villages);
- Re-engineering of areas with existing warehouse complexes; and
- Operational issues.

Enforcement of transport regulations

A fifth working group (MT-2) is charged with identifying medium- to long-term measures to address the weaknesses in the enforcement of transport regulations. This weakness has important consequences for the positive evolution of the transport sector towards the standards of efficiency of other European countries. It encourages low compliance with technical and driving regulations. It also weakens the already small commercial sector in Greece faced with unauthorized competition by foreign registered operators and own account Greek companies.

The working group charged with these issues outlined the following key needs and problems:

- Identification and elimination of gaps in the procedure for verifying infringements and collecting fines.
- Inability to collect fines from foreign defaulters.
- Lack of a system for certified training of enforcers.
- Coordination problems between control authorities in the regions and lack of a national control strategy.
- Need for a codification and simplification of transport regulations and definition of clearer guidelines for Competent Authorities' enforcement units and staff.

The World Bank supplied an international expert to help analyze and propose measures to improve the implementation of transport enforcement through better collaboration of the enforcement agencies and technological empowerment.

Enhancing competitiveness—Operationalizing the National Logistics Strategy

A sixth working group (MT-3) is working on a plan to put in practice the strategy that the larger Logistics Permanent Committee will ultimately develop. Part of this group's task is to anticipate some of the overlaps between the strategy, measures, and actions that have already been proposed. The group will also work to identify measures or policies that could be used to attract business investment.

Mapping, monitoring and evaluation

A seventh and final working group (MT-4) has been tasked with identifying a number of data-sources and data-collection priorities. The work is still at an early stage, but the work of this group is expected to be significant for the implementation and execution of the national strategy. The group plans to identify the following:

- Suitable key performance indicators to monitor logistics sector performance.
- Priority areas for a mapping exercise by the relevant ministries.
- Level of compliance with regard to existing national and international regulations.
- Ways to track the progress of reforms.

The group also plans to outline a lasting framework for monitoring and evaluation compatible with available resources and address additional issues as necessary.

Appendix 2: World Bank's Suggestions on the Scope of a National Logistics Strategy or Master Plan

National Logistics Strategy vs. a Master Plan

National Logistics Strategy: a vision with medium to long term objectives. A national logistics strategy typically outlines a vision, defines medium to long term objectives/goals and charts the resources needed to achieve this vision. Such a strategy can either be a "stand-alone" sector-specific one, or part of a broader national (e.g., industrial, trade or competitiveness strategy), as is the case, in the Turkish Industrial Strategy for 2011-2014[23].

In Greece, the Strategy or Master Plan may want to emphasize three elements in its vision: the growth contribution that an efficient logistics sector can bring to the Greek economy as a whole, the means of unlocking the growth potential, and the market positioning envisioned for Greek logistics.

- **Growth potential: efficient logistics can play an important role in Greece's recovery in several ways:** It can reduce the costs of importing and exporting; in itself, it can contribute to GDP growth as a service sector; and it can reduce the fragmentation of the domestic economy, thus improving economies of scale and productivity. Greece is geographically and economically well-located. Piraeus Port, the deepest seaport on the Mediterranean, is close to the Mediterranean maritime route and has already started developing as a significant trans-shipment center. Both Piraeus and Thessaloniki have the potential to evolve into gateway ports to South East Europe and Central Europe. Provided that a long-distance, reliable railway connection can be established, Greece can take advantage of the economic growth in Eastern Europe and the regional production networks established between Eastern and Western Europe. Becoming a regional gateway will require competitive logistics along the whole supply chain, in addition to efficient ports and railway connections.
- **Means: to realize its objective of becoming a gateway for Europe, Greece needs to undertake a number of reforms to its transport, logistics and other trade-related sectors.** It will need to take measures that facilitate investment and also make changes to regulations and systems to encourage the modernization of sectors that are vital to both the health of the country's business environment and also firms' ability to survive in the face of competition within the region. There is not one single, major reform that will enhance the competitiveness of logistics in Greece. Rather, improving the performance of the sector will require a continued and coordinated effort to enact micro-interventions to address the many small distortions that combine to create great uncertainty, raise information costs for new entrants and ultimately deter investors.
- **Market positioning: in designing regulatory reforms, the government may want to consider targeting medium- to long-term market demand and build a reputation for high-quality service and reliability.** Clearly the comparative advantage of Greece should lie in delivering quality services: the country cannot compete with the cost-advantageous emerging countries or with the technological juggernauts of Northern Europe. For this reason, the priority may be given to those reforms that push operators to apply best practices and deliver superior services. Dubai and Shanghai, which in a few decades acquired a global reputation as important centers for logistics, represent role-models in this sense.

Developing an implementable national logistics strategy is not an easy task even in countries where the socio-economic and political situation is stable. The logistics strategy work started in 2008-2009 by the Ministries responsible for logistics in Sweden and Finland, respectively, has not produced a viable strategy in either country to date. In both countries the process ground to a halt mainly because the committees tasked to draft the strategy became so large that reconciling the different stakeholder groups' interests into a consensus proved too difficult.

23 See example: http://www.sanayi.gov.tr/Files/Documents/TurkiyeSanayiStratejisiIngilizce.pdf .

There is a genuine risk that all the work leading to a general logistics strategy paper in Greece will come to nothing. Given the limited capacity to implement reforms, too general a strategy with limited or no commitment from key stakeholders—notably the Government—will turn into a very frustrating process for all involved parties.

A (Freight) Logistics Master Plan: a pragmatic working plan with defined tasks and responsibilities. A (Freight) Logistics Master Plan,[24] on the other hand, should preferably be seen as a pragmatic working plan with clearly defined tasks and responsibilities between the public and private-sector stakeholders, concrete measures as well as milestones along the way. It should also provide a rather detailed understanding of the costs and other resources needed. (See Attachment 2: German Freight Transport and Logistics Action Plan).

A concrete and implementable Logistics Master Plan is more in demand in Greece than a loosely defined strategy. In all strategy work, it is important to define the medium to long term goals in such a fashion that they are well-targeted and ambitious, yet realistic to achieve. This applies also to improving the logistics environment and preconditions in Greece both in view of the domestic market and its trade operations.

Especially short term targets and the process of fulfilling them need to be measurable. It is very important that the concrete targets are formulated so that progress towards, and eventually achievement of these can be monitored using easy-to-understand metrics or performance indicators, either quantitative or qualitative or both.

The distinction between a Strategy and a Master Plan does not imply necessarily that two different documents need to be prepared. This does not have to be the case, if the strategy document itself contains a specific Master Plan.

A shared understanding of and commitment to medium and long term objectives is a requirement to set meaningful short term targets. Special attention needs to be paid to the overall long term vision. Where does Greece want to be in five to ten (or more) years' time? Setting quantitative targets accordingly has proven the best way to achieve progress in many fields. Examples of potential targets might include the following with measurable targets:

- The logistics sector contributed X percent of value added to the Greek economy in 20YY.
- The value added of the transport sector has grown by X percent by 20YY.
- The value added of the transport sector has reached XX million Euros (or X percent of Greece's total).
- Container transit through Greece has reached XX TEUs/ increased by YY percent.
- The container volume through and via Greek ports has reached X million TEUs.
- FDI in transport and logistics sector has reached XX m€/ increased by YY percent.

Timeframe covered in a National Logistics Strategy and a Master Plan

The choice of meaningful timeframes for a viable strategy and an implementable Master Plan is essential. The chosen timeframe should support the overall strategy horizon of (e.g., EU policies and programs as well as the national ones).

A typical time horizon in logistics strategy is five to 15 years. Typically, the time horizon in setting strategic goals are in the medium to long term, which means, for example, setting the target milestones at five to 15 years. In this case that would mean approximately years 2017–2027. As transport infrastructure development typically has a long time span, more ambitious infrastructure plans could even have planning horizon of several decades.

A typical time horizon in logistics Master Plans is two to five years. Concrete and implementable measures and actions in a Master Plan should typically have a short to medium time horizon. This would mean that concrete targets should be achieved in two to five years, or in this case in years 2015–2018.

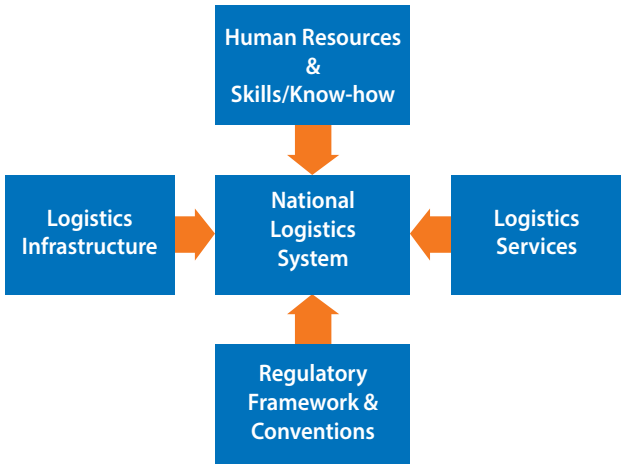
The scope of a National Logistics Master Plan

National Logistics Strategies or Master Plans typically cover five to eigth main themes, which contain 20 to 50+ specific items or measures. In short, these themes and measures tend to sort under the type of headings as shown in Figure A2.1(See also other international examples suggested in Box A2.2).

This report provides a guideline of the most pressing issues to be remedied in the Greek transport and logistics

24 Such a document can also be called an Action Plan.

FIGURE A2.1: **The main elements in the Logistics Strategy work in Finland 2009–2012, Ministry of Transport and Communications**



sector. It contains several remedial actions structured by key transport and logistics activities, and the overall operational environment. The main issues which could be transferred on areas for action in the Strategy and Master Plan—include the following:

- Institutional and regulatory environment
  - A complex regulatory framework
  - Fragmented implementation and enforcement of logistics policies
  - Privatization and concession policies in transport and logistics
  - Market access to transport and logistics services
  - Land ownership regulation
- Transport service provision by modes
  - Road transport
  - Rail transport
  - Ferry shipping
  - Ports
- Logistics service provision by type
  - Third-party logistics providers (3PLs)
  - Warehousing
  - Logistics Zones
  - Trade facilitation and transit issues
  - Trade facilitation challenges
  - Challenges in Customs Administration
  - Road and Rail Transit

The selection of the entire scope of issues to be included is the responsibility of the Government in consultation with the LPC and other stakeholders as deemed necessary. In addition to the topics raised in this report (see above), a number of other important items may be considered and incorporated in the national strategy. These include the following:

- Investment in transport and logistics infrastructure and services
  - By mode
  - By region, including the connections to neighboring countries
  - By type and source of finance, including the usage of Public-Private Partnerships
  - Investments in logistics service provision, including Foreign Direct Investment (FDI)
- Human Resources and Skills
  - Labour market issues
  - Status of and need for competencies
  - Supply of education, training and certification
- Access to Knowledge and Data
  - Monitoring and Evaluation, incl. availability of market information
  - Removing the backlog of relevant transport statistics.

A tentative List of Contents for the Master Plan is shown in Box A2.1. The structure of how the specific measures, their anticipated outcome and the division of responsibilities are presented in each of the measure is presented in the next section.

Each of the specific measure should be presented in a uniform, communicative fashion. This means that their anticipated outcome and the division of responsibilities are presented in a concise yet communicative fashion. Additionally, the motivation of each measure needs to be sound and presented clearly.

The German Freight Logistics and Transport Master Plan of 2008 provide a good template. In this report, the following headings have been used, where each measure is described in one page.

- Current situation
- Description of the measure
- Impact
- Responsibility
- Budgetary relevance
- EU Relevance
- Implementation period

BOX A2.1: Tentative Structure of the Logistics Master Plan for Greece

List of Contents

- Foreword by Minister
- The Context of Transport and Logistics sector in Greece
- Objectives of the Master Plan
- Theme A: Institutional and regulatory environment
  - ♦ Measure 1:
    - – Current situation
    - – Description of the measure
    - – Impact
    - – Responsibility
    - – Budgetary relevance
    - – EU Relevance
    - – Implementation period
  - ♦ Measure 2, etc.
- Theme B: Transport service provision by modes
  - ♦ Measure 1
    - – Current situation
    - – Description of the measure
    - – Impact
    - – Responsibility
    - – Budgetary relevance
    - – EU Relevance
    - – Implementation period
  - ♦ Measure 2, etc.
- Theme C: Logistics service provision by type
  - ♦ Measure 1
  - ♦ Measure 2, etc.
- Theme D: Trade facilitation and transit issues
  - ♦ Measure 1
  - ♦ Measure 2, etc.
- Theme E: Investment in transport and logistics infrastructure and services
  - ♦ Measure 1
  - ♦ Measure 2, etc.
- Theme F: Human Resources and Skills
  - ♦ Measure 1
  - ♦ Measure 2, etc.
- Theme G: Access to Knowledge and Data
  - ♦ Measure 1
  - ♦ Measure 2, etc.

Glossary and Abbreviations.

Specifically, the German Freight Transport and Logistics Action Plan from the year 2010, which is an updated version of the 2008 Freight Transport and Logistics Master Plan has identified five main areas, where concerted action is needed. Each of these comprise eight measures considered particularly urgent, tagged as "especially important measures" and four "other measures to be implemented." The five areas include:

1. **Strengthen Germany as a logistics center**

   Four "especially important measures" and two "other measures"
2. **Enhance the efficiency of all modes of transport**

   Eight "especially important measures" and two "other measures"
3. **Exploit the strengths of all modes of transport by interlinking transport infrastructure in an optimum manner**

   Two "especially important measures" and two "other measures"
4. **Promote the compatibility of transport growth with environmental protection and climate change mitigation**

   Three "especially important measures" and two "other measures"
5. **Support good conditions of working and training in the freight transport industry**

   One "especially important measures" and four "other measures"

The Timeline for producing a National Logistics Master Plan

The Greek Government should produce a strategy as soon as possible, so to anchor all other initiatives by the Greek state and any other stakeholders to it.

BOX A2.2: Examples of national logistics/transport strategies, Master Plans, or equivalent

Greece:

Trichas S. (2011) "Actual situation and Master Plan for the development of the Supply Chain Market in Greece", 4th European conference on ICT for Transport Logistics (presentation).

http://www.ecitl.eu/proceedings11/Keynotes/Trichas_Actual%20Situation%20and%20Master%20Plan%20for%20the%20Development%20of%20the%20Supply%20Chain%20Market%20in%20Greece.pdf.

European Commission:

Web references to EU Freight Transport Logistics Action Plan and Logistics Strategy: http://ec.europa.eu/transport/themes/its/road/application_areas/freight_and_logistics_en.htm.

http://ec.europa.eu/transport/themes/strategies/2007_logistics_en.htm.

Germany:

Freight Transport and Logistics Master Plan 2008:

http://www.bmvbs.de/cae/servlet/contentblob/30912/publicationFile/462/masterplan-freight-transport-and-logistics.pdf.

Freight Transport and Logistics Action Plan—Logistics Initiative for Germany, 2010.

http://www.bmvbs.de/SharedDocs/EN/Artikel/UI/freight-transport-and-logistics-action-plan.html.

Turkey:

National Strategy outline by M.E. Porter (2009) http://www.isc.hbs.edu/pdf/20091017_Turkey_CAON.pdf.

Turkish Industrial Strategy Document 2011-2014: http://www.sanayi.gov.tr/Files/Documents/TurkiyeSanayiStratejisiIngilizce.pdf.

Finland:

Strengthening Finland's logistics position, Ministry of Transport and Communications 2005.

http://www.lvm.fi/fileserver/strengthening%20finland's%20logistics%20position.pdf.

Intelligent Transport Strategy, Ministry of Transport and Communications 2009: http://siteresources.worldbank.org/INTTHAILAND/Resources/333200-1177475763598/2007cdp_infra-global_trends_in_transport.pdf.

Transport of Dangerous Goods Strategy, Ministry of Transport and Communications 2006-2015:

http://www.lvm.fi/fileserver/transport%20of%20dangerous%20goods%20in%20finland.pdf.

South Africa:

National Freight Logistics Strategy 2006:

http://www.portsregulator.org/images/documents/National_Freight_Logistics_Strategy.pdf.

Korea:

Law on National Logistics (Strategy) 2010:

http://english.molit.go.kr/upload//eng_law//20110401101423334_ENFORCEMENT%20DECREE%20OF%20THE%20BASIC%20LOGISTICS%20POLICY%20ACT.pdf.

General presentation: http://www.koti.re.kr/mail/news/KSP02_chapter04.pdf.

Indonesia: State of Logistics Indonesia 2013:
http://www.panteia.eu/nl/News/2013/09/~/media/9%20PanteiaEU/files/StateofLogisticsIndonesia2013.ashx.

Panama:

Logistics Portal:

http://www.gatech.pa/news/2012/02/launch-of-the-logistics-cabinet-and-the-logistics-portal-2/.

World Bank:

Amos (2007) on "Responding to global logistics trends with a National Logistics Strategy":

http://siteresources.worldbank.org/INTTHAILAND/Resources/333200-1177475763598/2007cdp_infra-global_trends_in_transport.pdf.

Appendix 3:
Roadside enforcement in Greece

Table A3.1: Policy maker/regulator - Disseminates transport regulations and advises on interpretation and uniform application (interim assessment of the MT-2 Working Group, July 2013)

	Regions	Traffic police	Port police	Financial Police - SDOE	Customs Authorities
Affiliation	Ministry of Home Affairs	Ministry for the Protection of Citizens	Ministry of Mercantile Marine	Ministry of Finance	Ministry of Finance
Where?	(Public roads and spaces used for public traffic)**	Public roads and spaces used for public traffic (except port areas)	(Port areas)	(Everywhere)	Customs premises. On special authorization, in the premises of enterprises
When?	n.a.t	24/7 365 days per year	n.a.	(24/7 365 days per year)	Office hours of the public sector. Upon request and on costs of the applicant, customs controls may take place after office hours. Border and airport customs: 24/7
Do they control transport regulations independently or on occasion of their other controls?	(Controls dedicated to transport regulations)	Both independently and on occasion of other controls	n.a.	(Both independently and on occasion of other controls)	Only on occasion of customs controls
What are the control units and how many?	(Joint control teams, at least one in each of the Regional Departments)	Traffic police officers	Input not available at the time of compilation	(The control teams of the SDOE regional services. 158 days of control planned for this year)	85 customs authorities
Who decides when to control and how many times?	n.a.	(Headquarters Chiefs of police Control planning units)	n.a.	(Central annual planning)	Based on risk assessment system
How are new transport regulations passed on to control units?	(MoT Circulars)	Central units disseminate the transport regulations with additional instructions, if needed	n.a.	(The central unit disseminates the notifications of the MoT)	The central unit disseminates the notifications of the MoT to the customs authorities, with additional instructions, if needed
Initial and periodic training of control staff in transport regulations	(MoT training seminar in 2007)	Based on service needs	n.a.	(None in the last 4 years)	None

* Information in the table is based on legislation and on replies of control authorities to a questionnaire circulated by the project group.

** Information in parenthesis is not documented yet.

Table A3.2: Current legislation on inspection of roadside transport (prepared by LPC sub-committee MT-2)

α/α	Control class	Legislation providing substantive rules of procedure, penalties and any other relevant matter		Who produces the law and pursue a policy in this area	Checkpoints	Controls
		Community legislation (Includes national legislation transposing and implementing EU law)	National legislation (non-EU)			
	Basic procedure roadside (horizontal legislation)		Law 3446/2006 (A 46) Articles 1–4, as applicable JMD G5/52182/3729/2000 (B 1136) JMD G5/29480/2304/2001 (B 614), and specific provisions by institution control (traffic, port police, etc.)			Traffic, Port Police, Customs, Financial Crime, Mixed Control Team of the Regions
1.	**Driving hours and rest periods of drivers - tachograph**	Regulation (EC) 561/2006 Regulation (EC) 3821/85 Directive 2006/22/EC as amended Law 3534/2007 (A 40) Articles 9–14 Embed FRY. 2006/22/EC: JMD G438/oik.28317/2481/2009 (B-989) Penalties: JMD F450/51477/5520/2011 (B 2687)		• N/Address Freight • N/Passenger Transport Division • Address Vehicle Technology • N/Department of Informatics • Ministry of Labor	• Driving hours and rest • Proper installation and use of recording equipment	Instruments of Law 3446/2006, mixed crews control
2.	**Weights and dimensions**	Directive 96/53 EC as applicable	PD 1161–1177 (A380) as applicable	Address Vehicle Technology N/Address Freight • N/Passenger Transport Division • Address D13 (General Secretariat of Public Works)	Maximum vehicle weights and dimensions	Instruments n.3446/2006 (trucks) and police authorities (trucks and buses)

Table A3.2: Current legislation on inspection of roadside transport (prepared by LPC sub-committee MT-2)

α/α	Control class	Legislation providing substantive rules of procedure, penalties and any other relevant matter		Who produces the law and pursue a policy in this area	Checkpoints	Controls
		Community legislation (Includes national legislation transposing and implementing EU law)	National legislation (non-EU)			
3.	**Roadside inspection Directive 2000/30/EC**	DIRECTIVE 2000/30/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL June 6, 2000 On the technical roadside inspection of the roadworthiness of commercial vehicles circulating in the Community (EE L 203, 10.8.2000, p.1) Modifications: Commission Directive 2003/26/EC of 3 April 2003 (L 90/8.4.2003 Directive 2010/47/EE of 5 July 2010 (L 173/8.7.2010) Transposition AND AMENDMENTS ---------- 1) JMD F.2/55009/4626/00/02 (GG 1028/7-8-02 B): Adapting Greek legislation to the provisions of Directive 2000/30/EC of 6 June 2000 on the technical roadside inspection of commercial vehicles circulating in the Community ---------- 2) F.2/32397/3517/04 JMD (Official Gazette 303 V/11-2-2004): Amendment F2/55009/4626/00/02 (B 1028) Joint Ministerial Decision "Adaptation of Greek legislation to the provisions of Directive 2000/30/EC of 6 June 2000 on the technical roadside inspection of the roadworthiness of commercial vehicles circulating in the Community," in compliance with the provisions of Directive 2003/26/EC ---------- 3) JMD 23418/1787/07 (GG 699 V/4-5-2007) Amendments No. F2/55009/4626/00/02 (B 1028) Joint Ministerial Decision "Adaptation of Greek legislation to the provisions of Directive 2000/30/EC of 6 June 2000 on the technical roadside inspection of the roadworthiness of commercial vehicles circulating in the Community," as applicable ---------- 4) G6/oik.15288/1248/09 JMD (Official Gazette 603 V/2-4-2009): Amendment No. F2/55009/4626/00 (GG 1028/V/7.8.2002) Joint Ministerial Decision "Adaptation of Greek legislation to the provisions of Directive 2000/30/EK of 6 June 2000 on the technical roadside inspection of commercial vehicles", as applicable ---------- 5) JMD 35359/4508/10/2012 (GG 40/V/2012) "Modification of F2/55009/4626/00/2002 joint ministerial decision" Adaptation of Greek legislation to the provisions of Directive 2000/30/EC of 6 June 2000 on the technical roadside inspection of the roadworthiness of commercial vehicles circulating in the Community '(1028 B) (Harmonization with the provisions of Directive 2010/47/EE)		• D/ Vehicle Inspection in collaboration with D/ Transmitter Passenger	a) Visual inspection of the maintenance condition of the commercial vehicle (heavy trucks buses road trains) stationary b) Control roadworthiness reports, the vehicle (TDS Control) c) Inspections to detect any defects maintenance 1. IDENTIFICATION (ID-plates) VEHICLE 2. BRAKES 3. STEERING 4. VISIBILITY 5. LAMPS, REFLECTORS, ELECTRICAL EQUIPMENT 6. BARS, WHEELS, TIRES AND SUSPENSION 7. CHASSIS 8. EQUIPMENT (Including: Speed indicator (Tachograph) Limiting device (cutter) Speedometer 8. OCHLISEIS (exhaust-noise)	Audit institution: Mixed Control Team (NDT) Penalties: • Fines • Removal of data traffic. • Moving vehicle tow vehicle to repair cars

Continued on next page

Table A3.2: Current legislation on inspection of roadside transport (prepared by LPC sub-committee MT-2)

α/α	Control class	Legislation providing substantive rules of procedure, penalties and any other relevant matter		Who produces the law and pursue a policy in this area	Checkpoints	Controls
		Community legislation (Includes national legislation transposing and implementing EU law)	National legislation (non-EU)			
4.	**Speed limiters Directive 2002/85/EC**	See checkpoints Directive 2000/30 as amended by Directive 2010/47 Same checkpoints included in Directive 2009/40		• D/nsi Vehicle Inspection only to the part of the device control at periodic check on MOT (Directive 2009/40) and roadside inspection (Directive 2000/30)		Mixed Control Team (NDT) (Visual inspection)
5.	**Directive on the initial and periodic training of drivers 2003/59/EK**	Presidential Decree 74/2008 (A 112) "Adaptation of Greek legislation with Directive 2003/59/EK the European Parliament and of the Council of 15 July 2003 on the initial qualification and periodic training of drivers of certain road vehicles used for the carriage of goods or passengers, amending Council Regulation (EEC) No. 3820/1985 and Council Directive 91/439/EEC and repealing Council Directive 76/914/EEC, as Directive amended by Directive 2004/66/EC of 26 April 2004 and 2006/103/EC of 20 November 2006	Articles 94 to 95 and 100 of the Highway Code as ratified by n.2696/1999 (A'57), as amended and in force by paragraph 1 of Article 42 of n.2963/2001 (A268) to paragraph 2 of Article 21 of n.3446/2006 (A49) to paragraphs 1, 2 and 3 of Article 85 n.3542/2007 (A50), paragraph 1 of Article 16 of n.3710/2008 (A216) and paragraph 1 of article 113 of n.4070/2012 (A82)	Address Highway	Existence of a valid driving license, indicating the password "95" on the Certificate of Professional Competence (P.E.I.)	Organs n.3446/2006 and police and port authorities
6.	**Driver Licenses Directive 2006/126/EC**	Presidential Decree 51/2012 (A 101) "Adaptation of Greek legislation with Directive 2006/126/EC of the European Parliament and of the Council of 20 December 2006, as amended by Commission Directive 2008/65/EC of 27 June 2008, 2009/113/EC of 25 August 2009 and 2011/94/EE of 28 November 2011	Articles 94 to 95 and 100 of the Highway Code as ratified by n.2696/1999 (A'57), as amended and in force by paragraph 1 of Article 42 of n.2963/2001 (A268) to paragraph 2 of Article 21 of n.3446/2006 (A49) to paragraphs 1, 2 and 3 of Article 85 n.3542/2007 (A50), paragraph 1 of Article 16 of n.3710/2008 (A216) and paragraph 1 of article 113 of n.4070/2012 (A82)	Address Highway	Existence of a valid driving license specific category depending on the vehicle driven	Organs n.3446/2006 and police and port authorities

Table A3.2: Current legislation on inspection of roadside transport (prepared by LPC sub-committee MT-2)

α/α	Control class	Legislation providing substantive rules of procedure, penalties and any other relevant matter		Who produces the law and pursue a policy in this area	Checkpoints	Controls
		Community legislation (Includes national legislation transposing and implementing EU law)	National legislation (non-EU)			
7.	**Dangerous goods Directive 2008/68/EC** **(Harmonization with JMD 52167/4683/2012, GG B 37) -** **Includes substantive rules for the transport of dangerous goods**	The obligation and the checkpoints-offenses provided for in Directive 95/50/EC (P.D.256/99, Government Gazette A 209) as amended by 2004/112/EC (UNHCR F101/17353/1929/2006 Gazette B 392) uniform procedures for checks on the transport of dangerous goods' which replaces the Annexes 95/50/EC relating to the definition of offenses	The monitoring and penalties for only two of those provided for in Directive 2004/112/EC n.3446/2006 offenses listed in (A 46). Specifically, the certificate of the vehicle and ADR driver-training certificate For other infringements are not handed down in JMD G5/29480/2304/2001 (B 614) include sanctions and penalties for breaches of the old Directive 95/50/EC, which has been replaced in regard to violations	N/Vehicle Technology Directorate Department Specification and vehicles transporting dangerous goods and perishable food	forecast Annex I -2004/112/EK Checklist: • Transport Document • Written instructions • Bilateral/multilateral agreement or specific approval • Approval Certificate ADR vehicle • Certificate training guide • Approved for transport goods • Approved vehicles to be transferred Asst. Merch • Provisions on how to transfer • Prohibition of mixed loading • Loading, security cargo handling • Leakage of goods or damage packages-packages • Highlight packaging under UN/Mark tanks • package marking and placards • plate tank/vehicle • Highlight vehicle/ transport unit • General safety equipment • Equipment proportion of goods • Equipment written instructions • Fire	Traffic and SVC.

Continued on next page

Table A3.2: Current legislation on inspection of roadside transport (prepared by LPC sub-committee MT-2)

α/α	Control class	Legislation providing substantive rules of procedure, penalties and any other relevant matter		Who produces the law and pursue a policy in this area	Checkpoints	Controls
		Community legislation (Includes national legislation transposing and implementing EU law)	National legislation (non-EU)			
8.	**Carryings trucks**		Law 1959/1991, as applicable (FICH) Law 3887/2010 (A 174) (LPFs) Arrangements carried per category LPFs	N/Address Freight	• Carryings FICH and LPFs	Instruments of Law 3446/2006
9.	**Market access for freight**	Regulation (EC) 1072/2009 cabotage, international transport Law 4093/2012 (A 222) leases		N/Address Freight	• Cabotage • Community licenses • Leases • Transit permits	Instruments of Law 3446/2006
10.	**Market access for international passenger transport by bus**	Regulation 1073/2009 Interbus Agreement Bilateral Agreements	N2446/1996 UNHCR G456/7383/531/12 PD 160/76 (Procedure and Penalties) N1903/1990 Article 18 (interception of capacity)	N/Passenger Transport Division	• License • Tickets • Sheet cruise control • Contract work • Community license	Instruments of Law 3446/2006
11.	**Market access for national passenger transport by bus**	Regulation 1073/2009 (cabotage)	N2963/2001 (Bus) N2446/1996 (LDCH) UNHCR D 16900/2550/76 (LICH) N1903/1990 Article 18 (interception of capacity)	N/Passenger Transport Division	• Legality carrying traffic volumes • Community authorization • Sheet cruise control	Instruments of Law 3446/2006
12.	**Market access for national and international passenger transport E.D.CH. (taxis)**		N2801/2000 Alien E.D.CH. N4070/2012 Greek E.D.CH.	N/Passenger Transport Division		Instruments of Law 3446/2006
13.	**Safe truck loading and stowage**		Article 32 of the Highway Code Article 3 of n.3446/06	Address Vehicle Technology N/Address Freight	• Loading	Instruments n.3446/2006 and police authorities
14.	**Vehicle identity**		Article 85 of the Highway Code	Address Highway Address Vehicle Technology	• Chassis number • Classification • Data traffic	Mixed Control Team (NDT) to control of Directive 2000/30 and organs n 3446/06 (trucks)

Table A3.2: Current legislation on inspection of roadside transport (prepared by LPC sub-committee MT-2)

α/α	Control class	Legislation providing substantive rules of procedure, penalties and any other relevant matter		Who produces the law and pursue a policy in this area	Checkpoints	Controls
		Community legislation (Includes national legislation transposing and implementing EU law)	National legislation (non-EU)			
15.	**Control expert exhaust service vehicles (emissions control card)** • **Article 3 of Law 2052/1992,** • **Presidential Decree 363/1995** **as applicable**		Article 3 of Law 2052/92 (Government Gazette 94 A '): Measures to combat smog and urban settings --- added section at the end of paragraph 9 of Article 3 of Article 19 of Law 2289/95, Government Gazette 27 A ') --- added case e 'and renumbering the existing in f by paragraph 7b of article 8 of Law 2366/95, Government Gazette 256 A' --- (Tombstones subsection as it was inserted by paragraph 7 of Article 8 of Law 2366/95, Government Gazette 256 A, by paragraph 4 of Article 16 of Law 2465/97, OG-28 A) --- Antiques. THE PAR. 1 of Article 3 by Fri 1 of article 7 of Law 3897/10, OG-208 A/10-12-10 - WAS AMENDED TO PAR. 1 of Article 5 of Law 3710/08 (Government Gazette 216 A/23-10-08) PRESIDENTIAL DECREE NO. 363/FEK/A '193/1995 System definition to impose administrative penalties on the institution involved in implementing the Card Elenchchou Exhaust (TBI) Amendments to the Laws • 3109/2003 • 3710/2008 • 3897/2010	• D/nsi Vehicle Inspection	Control exhaust - passenger, trucks, buses, (currently implemented) • Motorcycles and mopeds (as forecast)	Auditing bodies: a) Traffic; b) Municipal Police; c) Organs of the Ministry of Environment; d) Instruments of the Ministry of Transport and Communications Mobile control unit "field" means a unit established institution of the competent local Police Authority and employee or departmental Communications Services MOT or where not yet work MOT or the competent authorities of the Ministry of Environment e) Authorized private auditors (non-materialized) Penalties: • Simple creation and cancellation of TBI. Command to supply new HPC within 10 days • Fines • Application of the Criminal Code (false or falsified or unlawfully issued HPC)

Continued on next page

Table A3.2: Current legislation on inspection of roadside transport (prepared by LPC sub-committee MT-2)

α/α	Control class	Legislation providing substantive rules of procedure, penalties and any other relevant matter		Who produces the law and pursue a policy in this area	Checkpoints	Controls
		Community legislation (Includes national legislation transposing and implementing EU law)	National legislation (non-EU)			
16.	**Roadside inspections of mobile control unit "field" of the Presidential 363/1995** **(Provision of Presidential Decree 363/1995, as supplemented by Article 7, Law 3897/2010)**			• D/nsi Vehicle Inspection	Visual inspection of the condition of the vehicle on road safety and operation	In the event of any deficiencies or violations satisfy the Provisions of the Highway Code (KOK) fines from the State of the mobile unit control, which is part of the competent Police Authority

Appendix 4:
Road infrastructure in Greece – a brief overview

With regards road infrastructure, the main highways of Greece cross in Thessaloniki:

- PATHE is the vertical axis (N/S) linking the ports of Patra, Piraeus and Attica, Volos (by a detour) and Thessaloniki. It also covers flows to Northern borders, especially to F.Y.R.O.M. and less to Bulgaria; and
- Egnatia Odos is the horizontal axis (E/W) linking the ports of Igoumenitsa, Thessaloniki, Kavala and Alexandroupoli. Egnatia Odos is the main artery for trucks connecting Turkey and Europe.

Both axes are part of the EU South Eastern corridors. Each of them has several bottlenecks: PATHE bottleneck is the Tempi Valley and Egnatia Odos bottlenecks are Polimilos, Grevena, Metsovo and Paramythia, all in the mountainous NW Greece. The Ionian Road, connecting Patra and Igoumenitsa, is secondary for the moment. The Port of NAVIPE-Astakos is also connected with the Ionian Road albeit with a road of poor quality.[25] In terms of pan-European integration, Greece is a Contracting Party to the European Agreement on Main International Traffic Arteries (AGR), of 15 November 1975, which defines the E-road network. See Greece network of E-roads below:

The new EU TEN-T network consists of two layers: a core network to be completed by 2030 and a comprehensive network feeding into this, to be completed by 2050. The comprehensive network will ensure full coverage of the EU and accessibility of all regions. The core network will prioritize the most important links and nodes of the TEN-T, to be fully functional until 2030. Both layers include all transport modes: road, rail, air, inland waterways and maritime transport, as well as intermodal platforms. The map of the Comprehensive and Core Road Network for Greece is shown below.

25 "Strategic Mapping of a National Logistics & Supply Chain System: The Case of Greece", by Ioannis Siamas, Eleftherios Iakovou, Dimitrios Vlachos.

FIGURE A4.1: **E-roads network in Greece and neighboring countries**

FIGURE A4.2: **TEN-T Network: Comprehensive and Core Road Network for Greece**

Source: http://ec.europa.eu/transport/themes/infrastructure/doc/com(2011)_650_final_2_annex_i_part23.pdf.

THE WORLD BANK

1818 H Street, NW
Washington, DC 20433
www.worldbank.org