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Dimitrios Dalaklis World Maritime University

Petros Siousiouras

Antonios Maniatis

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# **Full Paper under the Title:**

# DEALING WITH THE NEED OF GREEK PORTS EXPANSION: A PUBLIC-PRIVATE PARTNERSHIP OPPORTUNITY?

Dimitrios Dalaklis \*, Petros Siousiouras \*\*, Antonios Maniatis \*\*\*

\* Assistant Professor in the World Maritime University, Sweden.

E-mail: dd@wmu.se

\*\* Associate Professor of the University of the Aegean, Greece.

E-mail: siou@aegean.gr

\*\*\* \*\* Chair of Track No 35 of the Annual Conference 2014 of the EuroMed Academy of Business, Lawyer, Public Law Ph.D., University Fellow of the Technological Educational Institute of Ionian Islands, Greece.

Email: maniatis@dikaio.gr

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Regulations and managerial implications for New Public Management"

# DEALING WITH THE NEED OF GREEK PORTS EXPANSION: A PUBLIC-PRIVATE PARTNERSHIP OPPORTUNITY?

#### **Abstract**

Greece, located at the eastern portion of the Mediterranean Sea (Med) and a country with an enormous number of islands, is a shipping superpower. The Med is amongst the world's busiest waterways. It provides access to the Black Sea and quite often it is characterized as the most important element of the transport chain between Asia and Europe. The Greek Prime-Minister himself has openly declared his strategic vision to transform the country into a major hub for Europe's commerce; numbers of port-visits in the country under discussion are extremely high and expectations are that with the upcoming recovery of the Greek economy they will further increase. However, the current infrastructures -especially those of Piraeus and Thessaloniki (the largest and busiest ports of the Hellenic Republic)- are clearly in need of expansion. This paper briefly examines the framework of Public-Private Partnerships (PPP) and suggests that the specific methodology can provide a solution to overcome the need of financing for the various urgently needed projects that will allow the introduction of new and improved services towards various types of ships. The obvious conclusion is that with the Greek economy still in recession, the necessary framework that will allow the commencing of the technical works, such as the expansion of berths and storage facilities and the interconnections with highways and rail-lines, can be found only through partnerships of the government controlled port-authorities and large in size constructing companies of the private sector. These partnerships should be considered as a win-win situation for all parties involved. They provide an ideal opportunity for expanding infrastructures and/or services towards shipping without adding more to the already enormous government-guaranteed debt.

**Keywords:** Public - Private Partnership (PPP), maritime transport, Mediterranean Sea, ports expansion, infrastructures, contracting out, Greece, Piraeus, Thessalonica, Maritime Law, Crimean Peninsula.

**Paper for Track No 35.** *Public Private – Partnerships (PPP) in administrative contracts. Regulations and managerial implications for New Public Management.* 

# DEALING WITH THE NEED OF GREEK PORTS EXPANSION: A PUBLIC-PRIVATE PARTNERSHIP OPPORTUNITY?

#### Maritime transport and the Mediterranean Sea

The key characteristic of the contemporary world is the interconnectedness among societies and people across the national boundaries of nation-states. This complex process is called globalization and it is a phenomenon with multi-level influences (P. Siousiouras & D. Dalaklis (a), 2009). It provides societies and/or individuals with enormous economic opportunities; it also enables the diffusion of technological or scientific knowledge and facilitates investments in international level. With oceans covering almost three-quarters of the earth's surface and with well over 80% of all international trade transported by sea (UNCTAD, 2013), maritime transport should be considered as the backbone of globalization and extremely vital for all "just-in-time economies", such as those of Europe and the United States (D. Dalaklis, 2012). Today, shipping is by far the most international of the world's industries, serving vast quantities of global trade. Each and every day, ships of different size and capabilities carry huge quantities of cargo cost effectively, cleanly and safely. It is important to note that the ownership and management chain surrounding any ship can embrace many countries. It is indicative that ships spend their economic life moving between different jurisdictions, often far from the country of registry.

The Mediterranean Sea (Med) is amongst the world's busiest waterways. For example, during the year 2006 (before the outbreak of the current global financial crisis), 15 per cent of global shipping activity by number of calls and 10 per cent by vessel deadweight tons (DWT) were noted in the wider region. The same year, 13.000 merchant ships made 252.000 calls at Mediterranean ports, totalling 3.8bn DWT. Every year the equivalent number is increased, no matter of the on-going global economic recession. Statistics also clearly indicate that at the same time around 10.000 (mainly large) vessels transited the area under discussion en-route between non-Mediterranean ports. Merchant vessels operating within and through the Mediterranean are getting larger and carrying more trade in larger parcels. Vessels

transiting the Med average around 50.000 DWT and are (again, on average) over three times larger than those operating within the Mediterranean (REMPEC, 2008).

The Med's geo-economic significance is made clearly obvious by the fact that it is a common area for three different continents: Europe, Asia and Africa. Furthermore, it is necessary to note that there are two very important sea straits in its eastern basin: The first one is the Dardanelles, through which the Mediterranean Sea (and the Aegean Sea) communicate with the Black Sea and the various countries whose coastlines are located on the wider region of Black Sea; of course, for the latter the access to the open (warm) seas is secured. The second gate of interest is the Suez Canal. Subsequently, the following two basic axes with special importance for maritime transports are formed: a) Atlantic Ocean-Mediterranean Sea-Red Sea and b) Black Sea-Aegean Sea-Mediterranean Sea-Indian Ocean. As a result, the Mediterranean is often characterised as an extremely important element of the modern maritime transport system and, above all, as the most important link of the transport chain between Asia and Europe (see figure 1)



Figure 1: Major transport routes and the role of the Mediterranean Sea

Source: J. P. Rodrigue, C. Comtois & B. Slack, The Geography of Transport Systems, Routledge, New York, 2009.

#### **Definition of PPPs**

A public-private partnership (PPP) is a government service or private business venture which is funded and operated through a partnership of government and one or more private sector companies. These schemes are sometimes referred to as PPP, P3 or even P³. In the last few years, public-private partnerships (henceforth PPPs) have gained importance as vehicles to finance public infrastructure across Europe. PPPs have developed from their traditional base in the transport sector to the areas of public buildings and equipment (i.e. schools, hospitals, prisons, etc) and the environment (i.e. water/waste treatment, waste management). Also, by comparing between the various European Union's (EU) countries, experience with PPPs has become more diversified through the years. Beyond the (leading) UK, some countries have developed and diversified their PPP markets extensively, such as France, Germany and Spain; others have clearly shown limited interest in the specific domain but have already started to firmly develop PPP programs. Still, there today many EU Member States who have only limited experience with PPPs (A. Kappeler & M. Nemoz, 2010).

While the term PPP has been in use since the 1990s, there is no single European model of a PPP. In some countries, the concept of a PPP equates only to a concession where the services provided under the concession are paid for by the public. In others, PPPs can include every type of outsourcing and joint venture between the public and private sectors. As a result, the recorded number of PPP projects may vary considerably across data sources. In its Green Paper on PPPs, the European Commission recognized that the following elements normally characterize a PPP (A. Kappeler & M. Nemoz, 2010):

- The relatively long duration of the relationship, involving cooperation between the public partner and the private partner on different aspects of a planned project (...);
- The method of funding the project, in part from the private sector, sometimes by means of complex arrangements between the various players (...);

- The important role of the economic operator, who participates at different stages in the project (design, completion, implementation, funding) (...);
- The distribution of risks between the public partner and the private partner, to whom the risks generally borne by the public sector are transferred (...).

# Origin and PPPs paradigms

Pressure to change the standard model of public procurement arose initially from concerns about the level of public debt, which grew rapidly during the macroeconomic dislocation of the 1970s and 1980s. As a response, governments sought to encourage private investment in infrastructure, initially on the basis of accounting fallacies arising from the fact that public accounts did not distinguish between recurrent and capital expenditures. Initially, most public-private partnerships were negotiated individually, as one-off deals, and much of this activity began in the early 1990s. The idea that private provision of infrastructure represented a way of providing infrastructure at no cost to the public has now been generally abandoned; however, interest in alternatives to the standard model of public procurement persisted. In particular, it has been argued that models involving an enhanced role for the private sector, with a single private-sector organization taking responsibility for most aspects of service provisions for a given project, could yield an improved allocation of risk, while maintaining public accountability for essential aspects of service provision. PPP involves a contract between a public sector authority and a private party, in which the private party provides a public service or project and assumes substantial financial, technical and operational risk in the project. In some types of PPP, the cost of using the service is borne exclusively by the users of the service and not by the taxpayer (J. Barlow, J. K. Roehrich & S. Wright, 2013).

From the historical point of view, it is interesting to note that during the year 1992, the Conservative government (of John Major) in the UK introduced the Private Finance Initiative (PFI), the first systematic program aiming at encouraging public—

private partnerships. This program focused heavily on reducing the Public Sector Borrowing Requirement, although, as already noted, the effect on public accounts was largely illusory. The succeeding government (of Tony Blair), which was elected in 1997, followed roughly the same path. The government made the necessary legal provisions and expanded the PFI initiative; but it also sought to shift the emphasis to the achievement of "value for money," mainly through an appropriate allocation of risk. However, it has since been found that many programs ran dramatically over budget and have not presented as value for money for the taxpayer with some projects costing more to cancel than to complete. A common problem with PPP projects is that private investors quite obtained a rate of return that was higher than the government's bond rate, even though most or all of the income risk associated with the project was borne by the public sector (J. Barlow, J. K. Roehrich & S. Wright, 2010).

There are usually two fundamental drivers for PPPs. Firstly, PPPs are claimed to enable the public sector to harness the expertise and efficiencies that the private sector can bring to the delivery of certain facilities and services traditionally procured and delivered by the public sector. Secondly, a PPP is structured so that the public sector body seeking to make a capital investment does not incur any borrowing. Rather, the PPP borrowing is incurred by the private sector vehicle implementing the project and therefore, from the public sector's perspective, a PPP is an "off-balance sheet" method of financing the delivery of new or refurbished public sector assets. Typically, a private sector consortium forms a Special Purpose Company, called a "Special Purpose Vehicle" (SPV) to develop, build, maintain and operate the asset for the contracted period (J. Zheng, J. K. Roehrich, & M. A. Lewis, 2008).

In cases where the government has invested in the project, it is typically (but not always) allotted an equity share in the SPV (M. Zoro & P. Gasiorowski, 2008). The consortium is usually made up of a building contractor, a maintenance company and bank lender(s). It is the SPV that signs the contract with the government and with subcontractors to build the facility and then maintain it. In the infrastructure sector, complex arrangements and contracts that guarantee and secure the cash flows make PPP projects prime candidates for project financing. A typical PPP example would be a prison building, financed and constructed by a private developer and then leased to the prison authority, or directly to the government through the Department (Ministry) of Justice.

In summary, PPPs constitute long-term contracts of technical works construction or of services provision, with allocation of risks shared between the public sector and the private one; the main aim of this approach is to ensure beforehand the necessary financing of the scopes. The term "sponsored PPP" declares the PPP case, in which the cost of providing the service is jointly borne by the users of the service and the government through a capital subsidy, not wholly borne by the Public Administration (administrative PPP). On the contrary, in the traditional type of public works contracts there is no allocation of risks and the private contractor gets the reward for the part of the technical works already completed during the execution of the contract, uniquely by the public contractor (K. Evangelatou, A. Maniatis & O. Manoliadis, 2013).

# The Greek dialectic relationship with shipping

Greece is a maritime nation by tradition, as shipping is arguably the oldest form of occupation of the Greeks and has been a key element of the country's economic activity since ancient times. There are various explanations for this phenomenon. To begin with, the mountainous landscape of the mainland and the rather limited available farming area has enforced many people to look towards a different direction in order to cover their necessity of work/occupation. Furthermore, the numerous islands of Greece and the extended coastline provide another incentive for people to deal with the reaches of the sea: shipping and trade. The Hellenic Republic enjoys a very privileged geographical position. It is situated on the crossroads of various major sea lanes in the eastern Mediterranean (see figure 2) and with extremely large proximity to two other rather overpopulated continents: Asia and Africa. The Suez Canal and the Dardanelles Straits are two extremely important choke points for maritime traffic. They both gather a significant high number of ships, with the technical construction between Suez and Port Said steadily exceeding the number of 20.000 crossings per year.

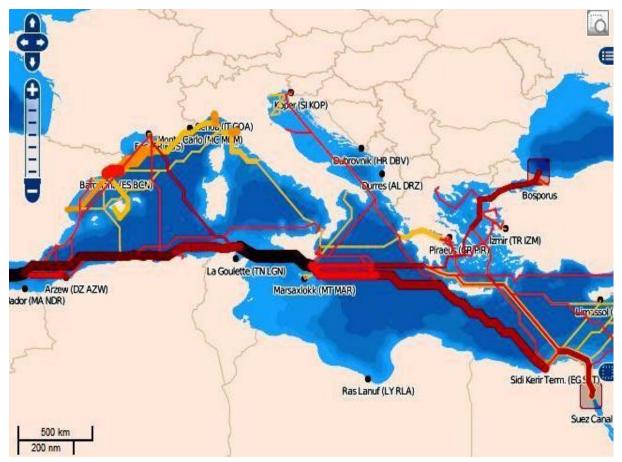


Figure 2: Major transport routes within the Mediterranean Sea

Source: www.rempec.org, February 2012.

Yellow lines refer solely to cargo and container ships, while the red mainly to tankers but also to all other types of ships. Additionally, the thickness of the line represents the number of ships following the specific route. Furthermore, there is the Corinth Canal (6 km long), which connects the Gulf of Corinth with the Saronic Gulf and shortens the sea voyage from the Adriatic Sea to the port of Piraeus by 325 km.

For example, in 2008, a total of 21.415 vessels passed through the canal and the revenues from the canal totaled \$5.381 billion. Although the current financial crisis and piracy activities in the Gulf of Aden has negatively impact the number of Suez crossings, since the second quarter of 2013 associated numbers are going up: EU's naval operation ATALANTA has clearly suppressed the Somali pirates' actions (D. Dalaklis, 2013). In any case, a considerable proportion of the world's energy resources -mainly oil and natural gas passes through the Mediterranean and also through the Aegean Sea (see also figure 2). It is not only those originating in the Persian Gulf; from this particular maritime corridor -either solely by oil tankers or through a combination of pipelines and medium or large tankers- that the entire trade of energy resources coming from the Caspian Sea and Russia is being transported (D. Dalaklis, P. Siousiouras & N. Nikitakos, 2009).

An additional equivalent of 20.05% of the world's tanker DWT is on order, with another 12.1% of bulk carriers also on order. Today, shipping is one of the country's most important industries. It accounts for 6% of GDP, employs approximately 160,000 people (an important portion of the total workforce). Earnings from shipping amounted to €15.4 billion in 2010, while between 2000 and 2010 Greek shipping contributed to the country output a total of €140 billion. A European Community Ship-owners' Association (ESCA) report for the years 2010-2011 emphasized that the Greek flag is the fifth-most-used internationally for shipping, while it ranks first in the EU (see table 1); the same ECSA report stressed the fact that there were approximately 750 Greek shipping companies in operation.

Year	2000	2001	2002	2003	2004	2005	2006- 2008	2009	2010	2011
Global ranking	5th	5th	5 <sup>th</sup>	4th	3rd	5th	-	5th	6th	4th
"Exports" (US\$ million)	7,558.995	7,560.559	7,527.175	10,114.736	15,402.209	16,127.623	-	17,033.714	18,559.292	17,704.132
"Exports" (€ million)	8,172.559	8,432.670	7,957.654	8,934.660	12,382.636	12,949.869	-	12,213.786	13,976.558	12,710.859
"Exports" as %GDP	5.93	5.76	5.08	5.18	6.68	6.71	n/a	5.29	6.29	6.10

Table 1: Metrics of Greek shipping and its contribution to the country's GDP

Source: "ITC Trade Map: List of exporters for Sea Transport" and EUROSTAT (in Wikipedia).

# Geography and transport systems within Greece

It was already pointed out that Greece is strategically located at the crossroads of Europe, Western Asia, and Africa. It shares land borders with Albania to the northwest, the Former Yugoslav Republic of Macedonia (FYROM) and Bulgaria to the north and finally Turkey to the northeast-east. The country consists of nine geographic regions: Macedonia, Central Greece, the Peloponnese, Thessaly, Epirus, the Aegean Islands (including the Dodecanese and Cyclades), Thrace, Crete, and the Ionian Islands. The Aegean Sea lies to the east of the mainland, the Ionian Sea to the west, and the Mediterranean Sea to the south. Greece consists of a mountainous, peninsular mainland jutting out into the sea at the southern end of the Balkans, ending

at the Peloponnese peninsula (separated from the mainland by the canal of the Isthmus of Corinth). Due to its highly indented coastline and numerous islands, Greece has the 11th longest coastline in the world with a total of 13.676 km; its land boundary is 1.160 km. The country lies approximately between latitudes 34° and 42° N, and longitudes 19° and 30° E. Greece features a vast number of islands, between 1.200 and 6.000, depending on the definition, a large number of which are inhabited. Crete is the largest and most populous island; Euboea, separated from the mainland by the 60m-wide Euripus Strait, is the second largest, followed by Rhodes and Lesbos.

The Greek islands, all equipped with small or large ports, are traditionally grouped into the following clusters: The Argo-Saronic Islands in the Saronic gulf near Athens, the Cyclades, a large but dense collection occupying the central part of the Aegean Sea, the North Aegean islands, a loose grouping off the west coast of Turkey, the Dodecanese, another loose collection in the southeast between Crete and Turkey, the Sporades, a small tight group off the coast of northeast Euboea, and the Ionian Islands, located to the west of the mainland in the Ionian Sea. Eighty percent of Greece consists of mountains or hills, making the country one of the most mountainous in Europe. Large parts of Greece depend on a strong shipping industry for sustenance and growth. The Aegean and Ionian seas, with over 2.000 islands and islets spread around (as well as numerous dangerous rocks), could not be sustained and developed without the existence of a well-organized and developed merchant navy and ferry services. Transport in Greece has undergone significant changes in the past two decades, vastly modernizing the country's infrastructure. Although ferry transport between islands remains the prominent method of transport between the nation's islands, improvements to the road infrastructure, rail, urban transport, and airports have all led to a vast improvement in transportation. These upgrades have played a key role in supporting Greece's economy, which in the past decade has come to rely heavily on the construction industry.

The Greek Prime-Minister himself has openly declared his strategic vision to transform the country into a major hub for Europe's commerce. It is true that Greece retains one of the leading places in international shipping. The reciprocal relations between profits from maritime activities and national economy constitute merchant vessels as the fundamental factor and the means of development that are beyond the boundaries of the transport sector. On the other hand, there many important steps

towards the transformation of the country into a vital center of European commerce, with the expansion of the current infrastructures in various ports standing out. Unfortunately, the lack of financing is the main obstacle for improving the quality of services; without a significant improvement there is no way to attract additional ships' visits in the Greek ports. Furthermore, several problems are currently encountered in short-distance navigation, in ocean-going navigation and also in passenger/tourist cruises that are taking place within the sea areas of the Hellenic Republic. Needless to mention, maritime policy decisions should be made by taking into account the possibility of maritime accidents, sea and coastal pollution and the congestion of marine waterways, especially in areas that present the greatest demand for access (D. Dalaklis, P. Siousiouras & N. Nikitakos, 2009).

The framework of Public-Private Partnerships (PPP) can provide a solution to overcome the need of financing for the various urgently needed projects that will allow the introduction of new and improved services towards various types of ships. The analysis that follows will not cover each and every Greek port available. Statistics clearly indicate that the two busiest ports of Greece are by far Piraeus and Thessaloniki; they will be the centre of attention. There are tremendous benefits in a PPP and these partnerships should be considered as a win-win situation for all parties involved. There is an obvious explanation: they provide an ideal opportunity for expanding infrastructures and/or services towards shipping without adding more to the already enormous government-guaranteed debt.

# The port of Piraeus

A port is a location on a coast or shore containing one or more harbors where ships can dock and transfer people and/or cargo to or from land. Port locations are selected to optimize access to land and navigable water, for commercial demand, and for shelter from wind and waves. Since ports throughout history handled every kind of traffic, support and storage facilities vary widely. Associated piers, buildings and other infrastructures may extend for many miles and usually dominate the local economy, with impact up to the national level. Apart from the commercial activity, some ports might also have an important military role (naval bases). The Port of

Piraeus, as the largest Greek seaport, is one of the largest ports in the Mediterranean Sea basin and one of the top ten container ports in Europe. The port is also a major employer in the area, with more than 1,300 employees who provide services to more than 24,000 ships every year. With a history dating from 1924 when major civil works started taking place, Piraeus Port today has a range of activities concerning the Commercial and Central Ports, ship services and real estate development. The specific port connects continental Greece with the numerous islands of the; it is an international cruise center and a commercial hub for the Mediterranean, providing high quality services to ships of (almost) any type and size. Today, the government controlled Piraeus Port Authority (PPA SA) has a very important contribution towards the local and national economic growth and is further developed by upgrading both the infrastructure and the services provided. The Container Terminal of the Piraeus Port Authority began its operation in June 2010. With a projected annual capacity of 1.000.000 TEUs, it constitutes the main pier for freight activities of PPA SA. The Container Terminal has facilities and equipment of high standards and has the ability to offer advanced services in loading & offloading containers. There exist two platforms; the East one of 500m length and 18m depth and the West one of 320m length and 12m depth. Next to the station, the new waterside railway station of the Hellenic Railways Organization will operate, whose main railway line will link the length of the freight port of N. Konya with the new Freight Station of Intermodal Transport at Thriassio of Eleusina.

Piraeus is the largest port in Europe (and one of the largest in the world) concerning passenger traffic. It has a throughput volume of about 20 million passengers per annum (including the ferry traffic Salamis–Perama, which has a throughput volume of about 8 million passengers per year). It is the main link between the mainland and the Aegean islands and Crete, while also being the main sea gate of the European Union at its southeastern edge. The boundaries of the Main Port are the piers of Themistocles and Krakari. Furthermore, there is very large a cargo terminal; a car terminal is also included. Clearly, upgrades of the infrastructures are already taking place. For example, the completion of the new port-side railway station, as well as the connection with the G2 car terminal in July 2013. Future expansions of the Car Terminal are underway and necessary to complete in time - according to the 5-year investment plan of PPA SA- to ensure that the port will remain ahead of its competitors. However, in order to acquire/preserve the status of a

central transshipment gateway for the whole Mediterranean region there is much more to be done, with interconnections to the national rail grid standing out. And in all these activities the role of financing is more than crucial.

# The port of Thessaloniki

The Port of Thessaloniki is one of the largest Greek seaports and one of the largest ports in the Aegean Sea basin, with a total annual traffic capacity of 16 million tonnes (7 million tonnes dry bulk and 9 million tonnes liquid bulk). As a free port, it also functions as a major gateway for the Balkan hinterland and south-eastern Europe. The port of Thessaloniki also contains the second largest container port in Greece, after the port of Piraeus. Containers are handled through a specially arranged area located in the western part of pier 6. The 550 m. long and 340 m. wide Container Terminal can berth ships with a draught up to 12 m. The specific infrastructure is part of the Free Zone; it covers a surface area of 254,000 square meters, with an on-site storage capacity of 4,696 TEUs in ground slots. The Container Terminal was designed and created in accordance with state-of-the-art technologies and is equipped with modern container handling equipment. The terminal includes manned technical support facilities. It is also linked by a double track railway to the national railway networks.

The container terminal was under expansion, following an investment of around US\$600 million by the Hong Kong based company, Hutchison Port Holdings. The Hong Kong based company won the tender after surpassing a first offer made by COSCO Pacific, which offered around US\$500 million for the development of the container terminal. However, the impact of the global financial crisis it obvious: in 2009 Hutchinson didn't find the money to pay for the concession of the port and the project fell into troubles. Here lies an important PPP opportunity. Located in the north of Greece, the port of Thessaloniki is certainly interrelated with further economic development of the Balkan countries and their accession to the EU, especially in terms of transit cargo. Additionally, the port of Thessaloniki has one of the largest passenger terminals in the Aegean Sea basin that is now under improvement; another aim could be to turn Thessaloniki into a major tourist port for cruising in the eastern Mediterranean. Extremely important is also the oil and gas terminal. It has a total

storage capacity of 500,000 cubic meters and an annual traffic capacity of 9,000,000 tons per year. Finally, the cargo terminal has a total storage area of approximately 1,000,000 square meters and specializes in the handling of wide cargo that ranges from metal products, ore, chemical products (i.e. chloroform, asphalt, chemicals and mineral oils), general cargoes, timber, bulk cargoes and food products. This terminal also serves as a major transshipment hub in the Aegean-Black Sea area being used by other Balkan countries such as Serbia, FYROM, Albania and Montenegro. However, major improvements are needed and again the question that arises is about financing in order to complete and/or upgrade the current infrastructures.

### **Conclusion: PPP can provide the solution for expansion**

The contemporary world is well interconnected and there is an obvious trend towards economic globalization (P. Streeten, 2001). Clearly, the Mediterranean Sea and especially its eastern section, hold an important role within the wider context of international relations. There is a very simple explanation why: its key-role in the wider framework of the contemporary maritime traffic system. As already pointed out briefly, there are two important sea straits in the region: The first one is the Dardanelles, through which the Mediterranean Sea (and the Aegean Sea) communicate with the Black Sea and all the countries whose coasts are on the Black Sea, while for the latter the access to the open (warm) seas is secured. The second gate under discussion is the Suez Canal, in Egypt. The specific technical infrastructure allows shipping to travel from the Mediterranean directly to the Indian Ocean (via the Red Sea and the Gulf of Aden). All these regions form in line a very important maritime corridor that provides the shortest connection between Europe and Asia. (P. Siousiouras & D. Dalaklis (b), 2009).

It was already pointed out that nearly four fifths of international trade is being conducted by sea. The configuration of the Earth facilitates sea transport since three quarters of the planet's surface is covered by sea or lakes. With the exception of the North and South poles, the transport of passengers and goods by sea-going vessels is possible to and from any part of the world. This fact by itself constitutes a comparative advantage for sea transport against air or land transport. Current numbers of port-visits in Greece are extremely high. First of all, there numerous island that

take advantage of shipping in order to connect with the main land mass of the country. Furthermore, geography is favoring Greece; as the interconnection point of three different continents, it is very well situated to be a hub for international trade. Last but not least, the country's EU membership is a very valuable asset and Greece should aim to transform into the point of entry for all eastern European commerce transported by sea. However, more infrastructures (and therefore more money) are needed.

PPPs have gained importance as vehicles to finance public infrastructure across Europe in the past. However, from 1990 to 2009 nearly 1,400 PPP deals were signed within the EU, representing a capital value of approximately €260 billion. Since the onset of the financial crisis in 2008, estimates suggest that the number of PPP deals closed has fallen dramatically. Expectations are that with the recovery of the Greek economy port visits within the Hellenic Republic will rise. The current infrastructures, especially those of Piraeus and Thessaloniki (the largest and busiest ports of Greece), are in need of expansion. PPPs can provide the perfect tool for Greek port-authorities to expand their capabilities; both afore mentioned entities have retained their association with central government, since the Greek State owns 74% of Piraeus and Thessaloniki Port Authorities shares, both listed on the Athens Stock Exchange. Needless to mention, with the economy still in reception, the necessary investments are a very difficult task for the government. Partnerships with the private sector and joint schemes with capable constructing companies are an obvious opportunity and probably the best way out to get of the financial deadlock. Greece should grab the opportunity and pose as the main gate to serve the commerce of Asian countries. The joint venture with the Chinese company COSCO in the port of Piraeus should be vied as an interim steps and more efforts in the similar direction are needed.

Both cargo and cruise ships visits in large Greek ports are expected to rise in the near future. However, the most significant change in overall traffic patterns in the Mediterranean in the coming years will be the development of export routes for crude oil from the Caspian region, which is currently shipped predominantly via Black Sea ports through the Bosporus. If that is the case, high policy decision for traffic management in the Aegean Sea and especially in the vicinity of its choke point become a high priority in order to diminish the chance for a catastrophic accident to happen. Again, investments in high end technologies are needed. Even today, various efforts to improve navigation safety all around the Greek seas are currently in

progress. For example, the government has launched an effort to provide reliable Vessel Traffic Services (VTS) and monitoring the various high density traffic areas of the Hellenic Republic. However, the Hellenic VTS can provide a helping hand for seafarers only in a small number of choke-points and cover a rather limited area; future expansion of the system in other busy locations is needed in the near future, with the port of Thessaloniki standing out. (D. Dalaklis, P. Siousiouras & N. Nikitakos, 2009). In any case, the government should work along the private sector to create an added-value situation; at the same time PPPs can achieve introduction of the new navigation safety services with the minimal cost for the country.

Finally, as a general recommendation, the future associated procurement to create larger and with better capabilities harbors and ports within the Hellenic Republic should follow the partnership model and not the classical client-provider one, within higher costs are usually involved. In conclusion, PPP versions of expanding the infrastructures in the whole Greek maritime domain are attractive methods for technical works construction or services provision. It is a concrete tool/methodology, endowed with a lot of innovative regulations to ensure the successful outcome (Her Majesty's Stationery Office, 2000). However, in the long run, government and private partnerships should not be seen as a panacea; they should be introduced only in the case that they clearly add value to the effort. The obvious conclusion is that with the Greek economy still in recession, the necessary framework that will allow the commencing of the technical works can be found only through partnerships of the government controlled port-authorities and large in size constructing companies of the private sector. These partnerships should be considered as a win-win situation for all parties involved. They provide an ideal opportunity for expanding infrastructures and/or services towards shipping without adding more number to the already enormous government-guaranteed debt.

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The current study becomes more important, on account of the very recent development in the Black Sea. The Crimean Peninsula, on a basis of a referendum, held in 16.03.2014, became a territory of the Russian Federation. This peaceful revolution of the majority of the inhabitants of the Peninsula, belonging to Ukraine, has not been officially recognized; but it has highlighted the strategic role of Russia. Last but not least, it has confirmed the multi-pole character of the current international stage, exemplified by commercial investments of China in the port of Piraeus and

geopolitical changes of status quo in favour of Russia. So, the expansion of Greek ports is potentially combined with the expansion of the Russian superpower, even against international law...

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