Volume 4 Number 52 – Wednesday, 26 December 2012

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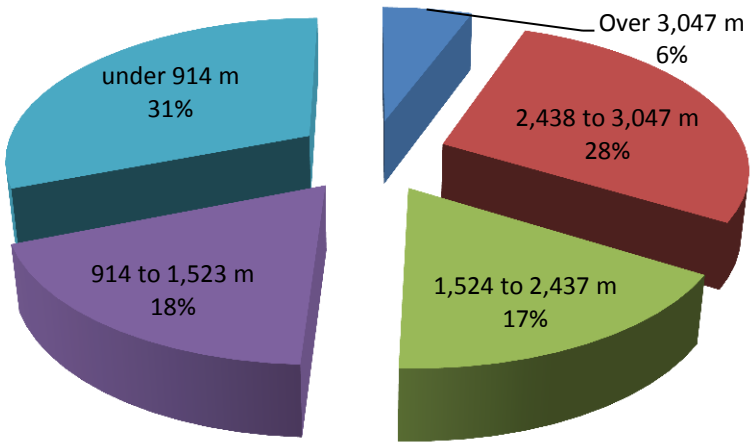
Republic of Korea: Aviation Industry

Republic of Korea has created a rather advanced framework for the success of its air transport industry. It is indicative that the aviation industry of the country supports 8.3 trillion South Korean Won (KRW) of economic activity, which equals to 0.8% of GDP. Additionally, there are 140,000 people employed in this sector. These numbers are getting bigger if we include the impact of aviation-related tourism, then the numbers rise to KRW 23.1 trillion KRW, hence the 2.2% of Gross Domestic Product (GDP) and some 488,000 jobs equaling for the 2.2% of the total workforce.

Republic of Korea has a developed economy. This was further highlighted in 2004, when the country joined the trillion dollar club of world economies. Currently is among the world's 20 largest economies. This fact further exemplifies the importance of aviation as an enabler of business and economic growth. As Mr. Tony Tyler, IATA's Director General and CEO, stated: "these achievements would not have happened without connectivity to world markets".

One of the main advantages of the Korean aviation is the Incheon airport, which enjoys a great reputation regarding the services and infrastructure that it provides. Incheon is playing a key role in using global standard technology in order to smooth passenger processes with self-service options for check-in, baggage tagging, travel-document checks, boarding, flight re-booking and baggage tracing. It is indicative that use of biometrics in the airport is among the most advanced in the world.

Airports - with paved runways



Apart from the Incheon airport, Korea has several other airports, in total of (71) with paved runways. (4) of them have a runway of over 3,047 meters, (20) have runaways between 2,438 to 3,047 meters, (12) have runaways between 1,524 to 2,437 meters, (13) between

914 to 1,523 meters and (22) have runaways between 914 to 1,523 meters. Finally there are (43) airports with unpaved runaways.

Kyriazis Vasileios,
Epicos Newsletter Head Editor

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Japan: Aerospace Industry Latest Developments & Capabilities

The Japanese aerospace industry turnover as of July 2012 amounted to 59,746 million Yens, down from Junes' ¥ 79,578 billion. The breakdown of the turnover was 12,438 million for the defence sector and 47,308 million for the civil. This turnover is relatively small in comparison with that of the U.S. and EU. Additionally, when compared to other industries such as the automotive, home electric, computer industries in Japan, the aerospace industry is still relatively small. However, the Japanese authorities anticipate that the export of airframes and engines for commercial aircrafts will expand and that space-related production will grow.

One of the main reasons why the Japanese aerospace industry is not of the same level with the European and the US is that for a certain period after the end of the war, Japan was not allowed to develop or produce any type of aircraft. Nevertheless, this has gradually changed. The development and manufacture of defense aircraft was the base of the Japanese aerospace industry. In recent years the F-2 fighter (a joint Japan-US project), the OH-1 observation helicopter, the T-7 trainer US-2 amphibious search & rescue flying boat have been successfully developed and produced in Japan.

In the civil sector, Japan is successfully participating in international joint development projects. Among others the country is participating in the development of aircraft such as the: B767, B777 and B787, and engines such as the: V2500, TRENT1000, GEnx, PW1100G-JM.

The aerospace industry of the country since 2010 employed a total of 31,412 persons, with 24,547 and 6,865 persons involved in aircraft-related and space-related activities respectively. The main domains of the industry that Japan is concentrating are the airframes and related parts and accessories domain, with an annual turnover in 2009 of 649 billion Yen (almost 60% of the total national aircraft production). Engines and related parts accounted for 322 billion Yen (almost 30% of the total national aircraft

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production), whereas related equipment accounted for 115 billion yen (almost 10% of the total national aircraft production).

The Japanese aircraft industry has made significant steps towards the development of a sustainable industrial base. Today, the Japanese aircraft manufacturers are able to develop, produce and maintain a wide range of defense aircraft, such as fighters, transporters, patrol planes, whereas in the civil section Japan is successfully participating in international projects.

Kyriazis Vasileios,
Epicos Newsletter Head Editor

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United Kingdom: The future of Defence Industry

UK defence and security industries are an important part of the nation's advanced manufacturing base and among the most advanced globally. It is indicative that in 2010 they supported export orders worth over £8bn, making the UK the world's second largest defence and fifth largest security exporter. Additionally, they sustain a large number of highly-skilled, high-value jobs. Finally, defence-related business account for a large share of R&D activity in a number of advanced manufacturing sectors, something that has a significant impact in the amelioration of the country's industrial base.

Currently, there are around 300,000 jobs in the UK associated with UK defence spending and defence exports. From these 155,000 people are directly involved in the industry, many of them being highly skilled, with a further 145,000 people indirectly employed in the supply chain. This positive trend is to continue as currently there are 100 UK companies engaged in the supply chain for the US Joint Strike Fighter (JSF) military aircraft programme, one of the most advanced and promising defence programmes globally. This fact, definitely highlights a positive tendency of the industry and allows an optimistic forecast for potential growth. Finally, it should be mentioned that companies in the sector are also widely dispersed across the UK, therefore helping to spread job vacancies and thus prosperity and development throughout the country.

Another positive aspect of the UK's defence and security industries is that they account for a large share of R&D activity in a number of advanced manufacturing sectors. It is indicative that in 2010, defence-related R&D accounted for more than half of R&D in the electrical equipment and machinery industries and around a third in the aerospace sector. This often leads to significant civil spin-offs. For example, the Typhoon combat aircraft's carbon fibre and engine technologies are being applied to civil aircraft and the motor car industry.

Finally, it is important to state that UK's defence industry absorbs a vast amount of the investment that the government makes every year in the defence sector. UK has the fourth largest defence budget in the world. In the financial year 2010/11 UK purchased £27 billion worth of defence equipment and services, accounting for 11% of public sector procurement being the third highest type of public expenditure after health and social protection. Sales of the domestic industry to the MOD account for almost a third of the UK shipbuilding industry's turnover and more than 10% of turnover for the aerospace sector.

Finally, UK's defence and security industries play an important role in the readiness of the national armed forces as they help them deploy around the world with some of the very best equipment available.

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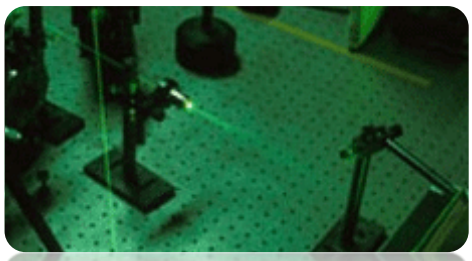
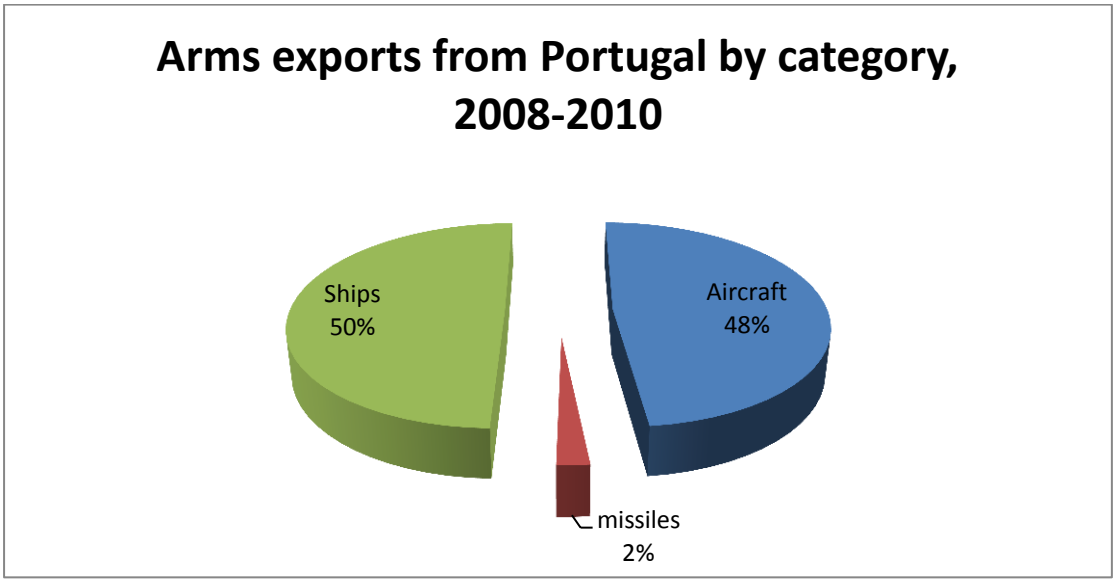
Portuguese Defence Industry and Exports of Defence Equipment



Portuguese defence industry expanded during the 1960s. The reason was that the country needed to meet the specialized requirements of anti-guerrilla operations in Africa. This created a stable base upon which the Portuguese defence industry was slowly built. Consequently, even after the end of the fighting in the middle 1970's and the subsequent scaling down of the armed forces, the sudden outburst of the production capabilities that occurred the previous years had exceeded the country's needs, something that had as a result a modest level of sales abroad. This helped the Ministry of Defence to keep production lines open for artillery, mortar, and small arms ammunition. Currently, Portuguese arm exports are rather limited in their geographical structure and range of exported items. Four countries (Belgium, Chile, Mozambique, and Uruguay) imported defence equipment from Portugal for the period 2007-2011. Ship vessels are the predominant area of exports for a total amount of $72 million US dollars expressed at constant (1990) prices. Aircraft follow with $70 million.



Currently, Portuguese companies are developing new capabilities to position themselves in technologically intensive sectors, with strong focus in dual-use ones, and gathering in cooperation networks to attain more integrated products and services, enabling them to ascend in their respective value chains.

The Portuguese defence industry is dominated by some significant companies. One of them is EID (Empresa de Investigação e Desenvolvimento de Electrónica). EID, provides communication systems for the armed forces of Portugal, Spain, Lithuania and the UAE. Another important company is OGMA (Indústria Aeronáutica de Portugal) and Edisoft (Empresa de Serviços e Desenvolvimento de Software). The company is an established and

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authorized maintenance center for several Original Equipment Manufacturers, including Lockheed Martin, Embraer, Rolls-Royce among others. Furthermore, Edisoft provides software engineering solutions to national and international customers, such as the Portuguese Ministry of Defence (Ministério da Defesa Nacional -- MDN) and major defence companies like DCNS, Thales and the VT Group. Finally, in the naval sector there is the Arsenal do Alfeite the mission of which is to provide the Navy and other customers with services of design, shipbuilding and ship repair with appropriate quality controls.

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Epicos Newsletter Head Editor

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Epicos "Industrial Cooperation and Offset Projects"

Epicos "Industrial Cooperation and Offset Projects" provides a unique set of online tools enabling the structure, identification and implementation of comprehensive Offsets programs, through a searchable database. By introducing different offset projects and ideas proposed by local A&D industry it ensures the optimum cost for Prime Contractors and reassures that the priorities of local industry are fully met…
For Further Information Press Here

Agricultural aircraft to fire extinguishing aircraft modification

A company operating in the area of agricultural aviation is proposing the modification of its agricultural aircraft to meet the requirements and operational needs of medium-extend fire extinguishing.

For Further Information Contact our ICO Department
Mail at: g-menexis@epicos.com

Head-mounted displays (HMDs) or Augmented Binoculars for Future Soldier and Homeland Security applications

A company with extensive experience in providing customized cutting edge solutions in the field of information technology, telecommunications and image processing is proposing the development of smart Head-mounted displays (HMDs) to be used in several Future Soldier and homeland security applications. The proposed HMDs, as wearable devices, will use augmented reality technology to render see-through images or video, imposed onto a real world view supporting Future Soldier operations.

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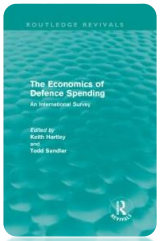
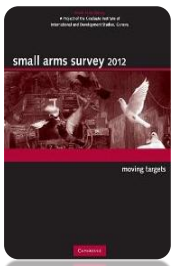
The Economics of Defence Spending: An International Survey, by Keith Hartley, Todd Sandler



First published in 1990, this is an authoritative account of defence spending and policy in both developing and developed countries. The book provides case-studies and comparative materiel for policy-makers, civil servants, and military staffs throughout the world. It will also be of great use to students of economics, politics, international relations, and policy studies.

Small Arms Survey 2012: Moving Targets, by Small Arms Survey Geneva



The Small Arms Survey 2012 seeks to increase our scrutiny of what is changing, and not changing, in relation to armed violence and small arms proliferation. The goal of curbing small arms proliferation, embodied in the UN Programme of Action, appears similarly elusive. Chapters on illicit small arms in war zones, trade transparency, Somali piracy and the 2011 UN Meeting of Governmental Experts highlight some of the successes, but also the continuing challenges, in this area. Country studies on Kazakhstan and Somaliland, along with the final installment of the authorized transfers project, round out the 2012 edition.

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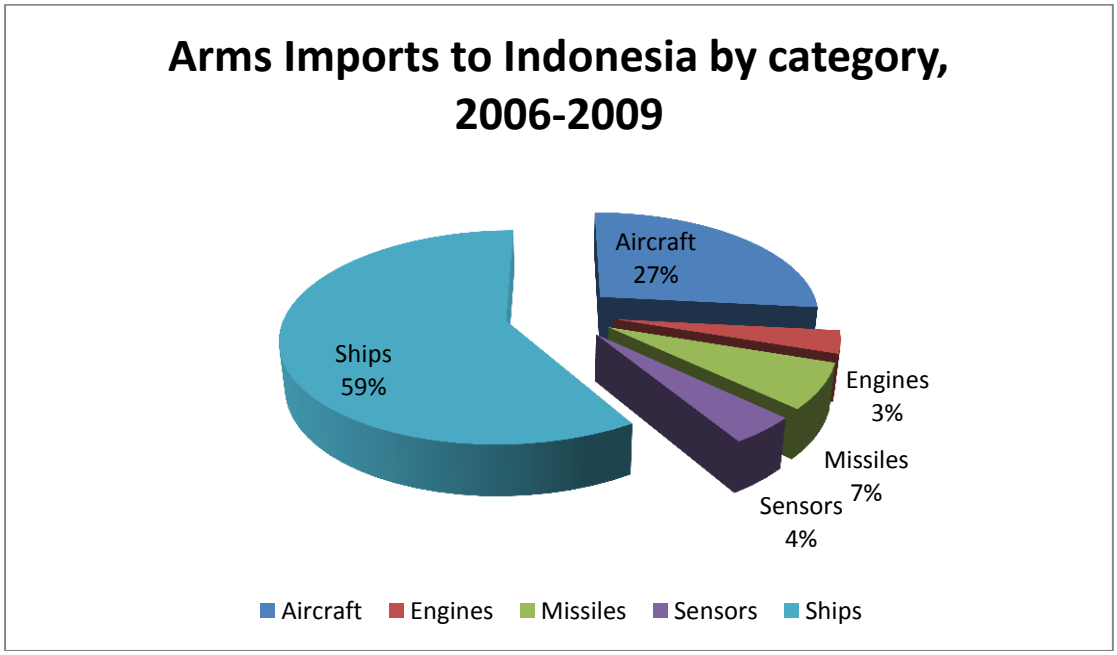
Indonesia: Procurement of Defence Equipment

The volume of deliveries of major weapons to states in Asia and Oceania increased by 24% between the period 2002-2006 and 2007-2011. Indonesia followed this trend, as deliveries rose by 144%. In 2007 total military expenditure of the country was, according to Stockholm International Peace Research Institute (SIPRI), 4,073 million US dollars in constant 2010 prices whereas in 2011, reached 5,220 million US dollars. Ship vessels were the predominant area of imports for the period 2007-2011 with a total amount of 963 US$ m. at constant (1990) prices. The 2nd most important sector is that of aircrafts with 437 US$ m. at constant (1990) prices whereas other areas such as missiles, sensors and engines follow.



The Netherlands has a leading role in the Indonesian armament imports. Apart from the European country, other important countries that export arms to Indonesia, for the five last years, are Russia, South Korea and France. Indonesian armament imports are rather limited in their geographical preference as (3) of the (4) first countries that export arms to Indonesia, based on the amount of funds allocated, are European.

Imports (expressed in US$ m. at constant 1990 prices)

	2007	2008	2009	2010	2011	Total
Netherlands	297	149	149	-	-	594
Russia		41	165	180	65	450
South Korea	176	5	90		100	370
France	46	21	32	46	8	154

Source: SIPRI Publications, Arms Transfers Database

The Netherlands is in the first place of arm exports to Indonesia mainly due to the fact that the Indonesian Navy has procured 1 SIGMA-105 Frigate in 2010. The total amount of the procurement reached 220 US dollars and deliveries are to start in 2014. Additionally, Indonesia procured 6 Su-30MK/Flanker FGA aircraft from Russia. Deliveries will be materialized during the period 2012-2014 and will reach the total amount of 470 million US dollars.

Finally, the country procured eight Super Tucanos on June 9, 2011 from Embraer (Brazil). The procurement also included ground support stations and an integrated logistics package. On July 2012, Indonesia has completed the procurement of eight more Super Tucanos. The order also included a flight simulator that will be used for instructing and training Indonesian pilots. Indonesia will be the first operator of Super Tucano in the Asia-Pacific region.

Indonesia will replace the fleet of OV-10 Broncos with the Super Tucanos. The new aircraft will carry out a broad range of missions, including light attack, surveillance, aerial intercepts, and counter-insurgency.

Kyriazis Vasileios,

Epicos Newsletter Head Editor

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Spanish Defence Procurements

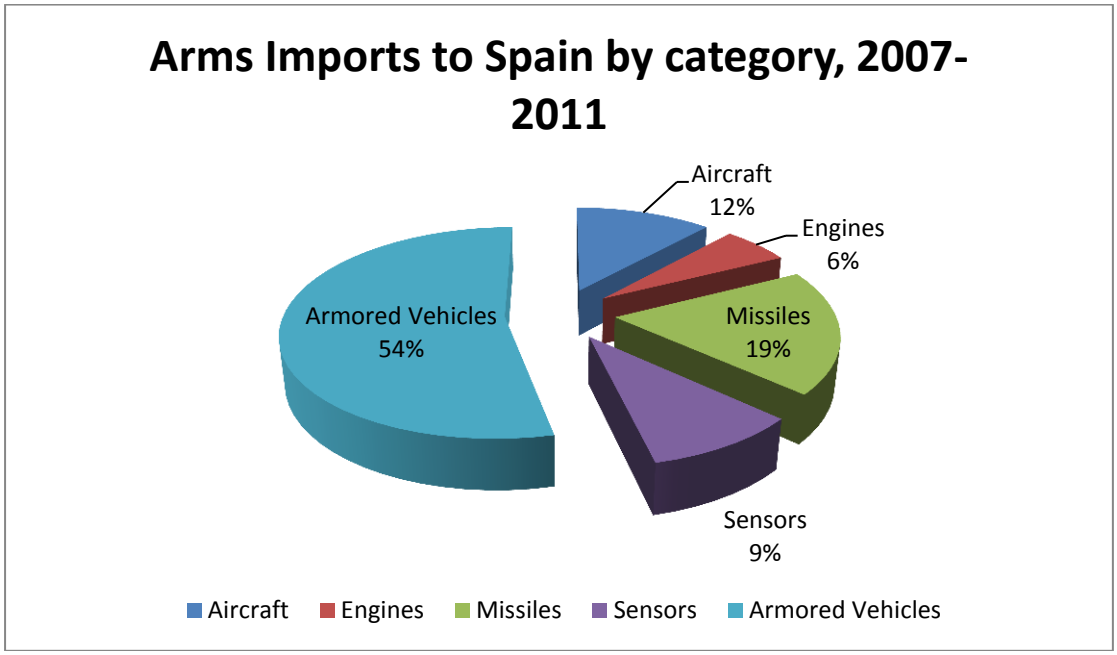
One of the worst global economic crises in more than 80 years affected Spain and the rest of Europe and it is limiting the available funds that national authorities can allocate on defence. It is indicative that in 2007 total military expenditure of the country was, according to Stockholm International Peace Research Institute (SIPRI), 17,098 million US dollars in constant 2010 prices whereas in 2011, reached 13,984 million US dollars, delineating a sharp fall. Germany has a leading role in the Spanish armament imports. Apart from the European country, other important countries that export arms to Spain, for the five last years, are USA, France, Italy and Switzerland. Spanish armament imports are rather limited in their geographical preference as four out of the five first countries that export arms to Spain, based on the amount of funds allocated, are European.

Imports (expressed in US$ m. at constant 1990 prices)

	2007	2008	2009	2010	2011	Total
Germany	173	210	148	219	86	835
USA	29	46	87	25	30	218
France	37	26	1	33	99	196
Italy	54	38		10	2	103
Switzerland	44	44		1	2	91

Source: SIPRI Publications, Arms Transfers Database

Armored vehicles were the predominant area of imports for the period 2007-2011 with a total amount of 824 US$ m. at constant (1990) prices. The 2nd most important sector is that of missiles with 293 US$ m. at constant (1990) prices whereas other areas such as aircraft, sensors and engines follow. The import of armored vehicles to the country covers more than half of the total imports for the period 2007-2011.



Germany is in the first place of arm exports to Spain mainly due to the fact that the Spanish Army procured more than 200 Leopard-2A6 for a total amount of EUR1.9 billion. The procurement included an offset deal of 80% of the total funds spend.

The economic recession resulted in diminishing the defence budget of the country. In order to counterbalance that and to keep the armed forces adequately equipped Spanish authorities use the capabilities of the national defence industry, which is developed and is currently characterised by the dual nature of production (producing both for the civil market and for the Ministry of Defence), the participation in highly technological international programs and the adaption of the developments carried out for the civil market to Defence applications.

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Epicos Newsletter Head Editor

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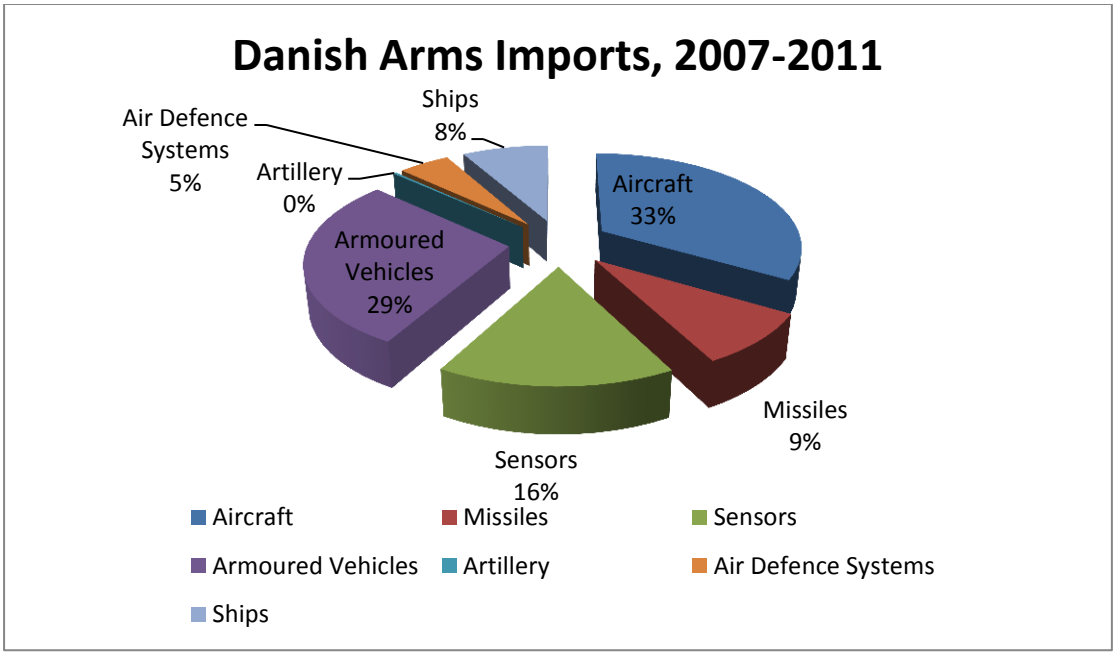
Denmark: Future Defence Budget

The total Danish defence budget in the 2012 Finance Act is DKK 23.2 billion. The budget is based on the Danish Defence Agreement 2010-2014 and the Danish Emergency Management Act. A significant amount of these funds are allocated to acquiring and on the running of existing equipment, as Danish authorities spend on this annually more than 5 billion DKR. The budget for 2013 is predicted to be DKK 23.165,2 whereas this for 2014 and 2015 are expected to be DKK 23.145,7 and DKK 20.523,8 respectively.

The Defence Agreement for 2010-2014, ratified in July 2009 by seven of the eight political parties represented in the Danish parliament, determined, amongst others that the development of the armed forces is to be continued along the lines set down in the 2005-2009 defence agreement. This actually means that the defence procurement policy of the country will not change.

According to Stockholm International Peace Research Institute (SIPRI) Sweden had a leading role in the Danish armament imports. Apart from Sweden, other important countries that export arms to Denmark in the period 2007-2011 are: USA, UK, Switzerland, Netherlands and Israel. Imports are rather limited in their geographical structure as (4) of the (6) first countries that export arms to Denmark, based on the amount of funds allocated are European.



The limitation of the geographical allocation of the Danish imports is not in accordance with the limitation of imported items, as there are several different equipments that the country has procured. Aircraft are the predominant area of imports for the period 2007-2011 with a total amount of 110 US$ m. at constant (1990) prices. The 2nd most important sector is that

of armored vehicles with 94 US$ m. at constant (1990) prices whereas other areas such as sensors, missiles, ships, air defence systems and artillery follow.

Nowadays, the operations that the Danish armed forces are taking part are different from the ones in the past. New tactical threats, greater intensity of missions, larger number of international operations and their big distance from Denmark, as well as the wide dispersal of the contingents within the specific mission areas are some of the differentiations that create a misbalance between the tasks and resources of the Danish Armed Forces. In order to tackle with these new challenges the Danish authorities allocate a significant amount of money to defence.

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Epicos Newsletter Head Editor

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The New Dimension of Portuguese Procurements

Portugal was heavily hit by the global economic downturn. It is indicative that the Portuguese Gross Domestic Product (GDP) fell in 2011, as the government implemented austerity measures, including a 5% public salary cut so as to comply with conditions of an EU-IMF financial rescue package agreed in May 2011. The Portuguese defence budget decreased in 2011 following the deterioration of the economic environment of the country. In 2010 total Military expenditure of Portugal was according to SIPRI $4821 million US dollars in constant 2010 prices whereas in 2011, declined to $4285 million. In order to further cut on defence expenses the national ministry of defence put as one of its first priorities to rationalize military spending, by ensuring articulation between the different branches and a more efficient use of resources, particularly in the form of the implementation of the reform of the military health system.

Furthermore Portuguese authorities will try to reorganize and rationalize both the Ministry and the command structure of the Armed Forces, emphasizing coordination and the profitable use of synergies.

Imports (expressed in US$ m. at constant 1990 prices)

	2007	2008	2009	2010	2011	Total
Germany				550		550
USA	58	88	90	90	89	414
Netherlands		18	183	137		338
Spain		26	91	78		195

Source: SIPRI Publications, Arms Transfers Database

During the period 2007-2011, Germany had a leading role in the Portuguese armament imports. Apart from Germany, other important countries that exported arms to Portugal were USA, Netherlands and Spain. Imports are rather limited in their geographical structure as (3) of the (4) first countries that exported arms to Portugal, based on the amount of funds allocated were European. This can be easily explained by the intense socioeconomic relations that the country has developed with European Union member as it is a member of EU since 1986.

The geographical concentration of Portuguese imports is in accordance with the limited spectrum of imported items. Ship vessels were the predominant area of imports for the period 2007-2011 with a total amount of 798 US$ m. at constant (1990) prices. The 2nd most important sector was that of aircraft with 581 US$ m. at constant (1990) prices whereas other areas such as armored vehicles, missiles and engines followed.

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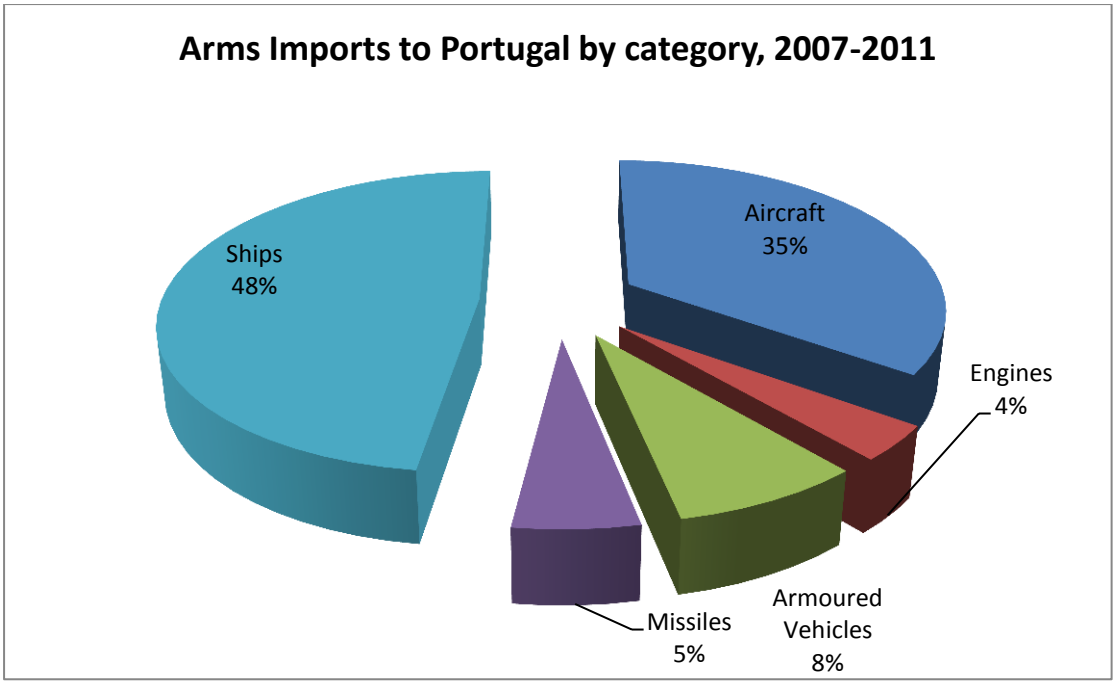

Portugal is currently facing a rather difficult socioeconomic situation. This is the reason why the country's authorities were obliged to cut on defence spending. In order to keep having a modern army, Portugal should continue moderately spending on defence taking into consideration the characterizing factors of the existing international environment, with its inherent transnational threats and opportunities.

Kyriazis Vasileios,

Epicos Newsletter Head Editor

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Latvian Defence Budget: Future Implementation

Authorities of Latvia are planning their defence policy in order to ensure the development of the national defence abilities of Latvia both on a national level, and within framework of collective defence. In order to achieve this, Latvia should ensure a long-term national defence funding mechanism which will gradually increase defence funding on a year basis, so that it will reach 2% of the gross domestic product in the future. Latvian authorities have set a goal to achieve this objective by 2020. Additionally, they have also set as an objective the implementation of development projects and ensure timely renewal of equipment. Thus, at least 20% of the defence budget must be allocated for the acquisition of armament and equipment. Furthermore, personnel costs should not exceed the 50% of the total budget.

Another important fact regarding the Latvian armed forces is that the national armed forces should follow NATO common policy planning in order to ensure that no less than 8% (or 450 soldiers) of the professional service personnel are sustained in operational areas. Additionally, no less than 50% of the total professional personnel of the NAF should be deployable in order to participate in NATO-led, EU-led and other international organizations-led operations.

In order to fulfill the aforementioned goals Latvia imported defence equipment from few countries. For the period 2006-2011 The Netherlands was the main exporter of arms in Latvia and is followed by USA, Germany, Italy and Sweden.

Imports (expressed in US$ m. at constant 1990 prices)

	2007	2008	2009	2010	2011	Total
Netherlands	44	44	-	-	-	88
USA	-	-	12	15	-	27
Germany	-	-	-	-	5	5
Italy	3	-	-	-	-	3
Sweden	2	-	-	-	-	2

Source: SIPRI Publications, Arms Transfers Database

Regarding the weapons systems Latvia is importing, ships are the predominant area of imports for the period 2007-2011 with a total amount of 93 US$ m. at constant (1990) prices. The 2nd most important sector is that of sensors with 25 US$ m. at constant (1990) prices whereas other areas such as aircraft, armored vehicles and missiles follow.

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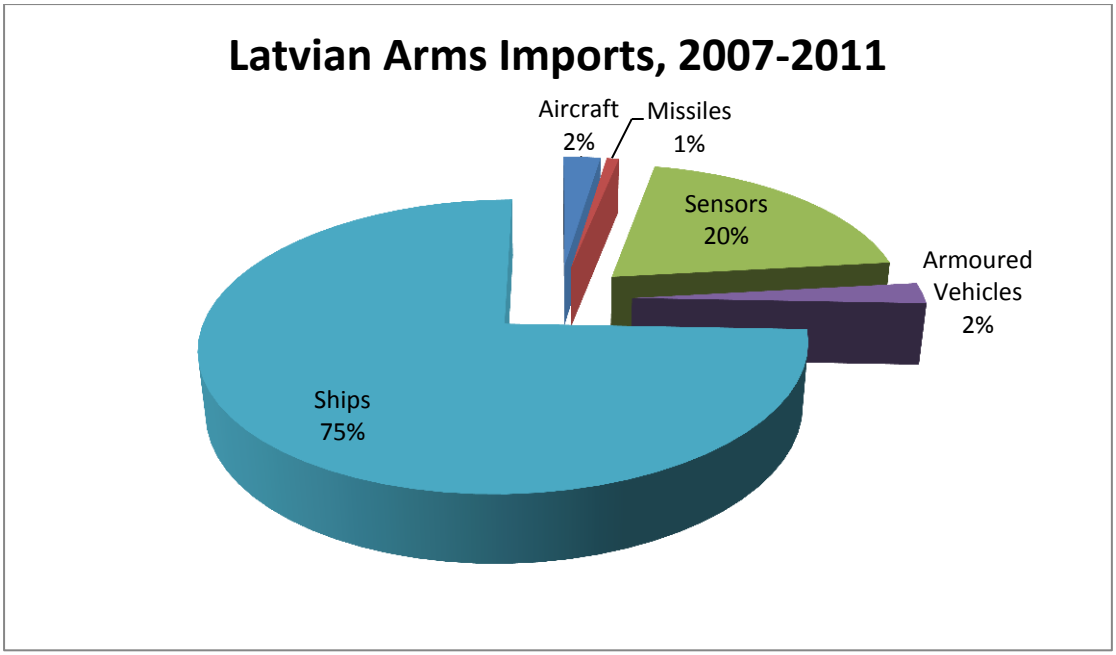

The armed forces of Latvia are being developed in accordance with the Latvia's geopolitical situation and always taking into consideration that the country participates in international missions. Thus, the Latvian authorities are trying to use available resources and apply military abilities in the best way.

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