On the occasion of the inauguration of the new Panama Canal scheduled for 26th June 2016:

SRM publishes the new study "THE ECONOMIC EFFECTS OF THE EXPANSION OF THE PANAMA CANAL ON MARITIME TRADE"

✓ The Panama Canal has a significant impact on world trade: there has passed, on average, 230 million tonnes of goods per year on 144 naval routes with 1,700 ports and 160 countries involved. It amounts to about 3-4% of the volume of world trade that passes through Panama. China and the United States are the main users.

✓ As a result of expansion, there will be a positive impact on the volume of goods in transit. In particular, the expansion of the Canal will have a positive effect on traffic coming and directed toward the four macro-areas: Asia (mainly China, Taiwan, Japan) with a potential increase of 4.3% per year; South America (Chile, Colombia, Ecuador, Venezuela and Peru) with 4%; Central America (Guatemala, Mexico, Panama and Trinidad & Tobago) with 3.7%; North America (USA, Canada) with 3.5%.

✓ The estimated cost of the work is of over €6 billion; since the expansion work began, more than 30,000 jobs have been created.

✓ The estimated revenues deriving from the annual management of the Canal as a result of the expansion, will rise potentially up to $4 billion (currently $2.7 billion).

✓ The passage of additional 12 daily vessels will be possible, which will be added to the pre-existing 38 for a potential total of 50 transits per day.

✓ The new Canal allows the passage of container ships up to 13.000/14.000 TEUs; the limit of the existing Canal is of 4.500-5.000 TEUs.

✓ The widening of the Panama Canal will have a direct impact on the economies of scale of the shipping companies and on the volume of goods transported which, as estimated, will increase by 15% in 2020, 3% per year.

✓ The new Panama Canal should confirm its role as a major international maritime hub, especially at the American Regional Continent and will have the effect of further strengthening the port of the Atlantic coast of the US. Suez Canal confirms its place as the major competitor acting with a more global maritime impact.
Naples, 24th, June 2016  SRM (Study Center connected to the Intesa Sanpaolo Group) has published a new study entitled "The economic effects of the expansion of the Panama Canal on maritime trade" realized on the occasion of the inauguration of the new Panama Canal, scheduled for tomorrow, 26th June 2016.

The work is part of a wider research project launched by the Study Center in January 2014 called "Observatory on Maritime Transport and Logistics" and wants to contribute to the analysis and to the knowledge of this great work and of the economic impacts that this will have on the trade and on global maritime routes, especially those directed and originating in the Mediterranean, as well as the investment of ports thereto connected.

The research also offers a perspective view of the new scenarios connected to the fact that the new Canal can accommodate larger ships and new types of vessels including those transporting LNG (liquefied natural gas) and LPG (liquefied petroleum gas).

The expansion of the Canal will help broaden the strategic dimension of Panama allowing it to become an international maritime hub, especially for the American Continent and the USA. Many are in fact the expansion projects of the terminal and the consolidation of the works that are under way in the U.S. ports to make them even more competitive to accommodate vessels of larger size coming from Panama.

The work is enriched by a survey in the field, which researchers from SRM carried out in Panama where they had the opportunity to deepen the analysis and statistics with the voice of direct players, such as the Canal's Authority, the Maritime Chamber, the major trade associations, large terminal companies.

To complete the analysis it has been provided a comparison with the Suez Canal on some world routes involving the Americas, the Mediterranean and the Middle East, since these two Canals are proposing a massive competition in the quality of logistics (on times and costs) and also in the pricing policy for the transit fee.

Declaration by the General Manager of SRM, Massimo DEANDREIS:

"The expansion of the Panama Canal is a primary importance engineering work - due in large part to an Italian company - which will have an impact in the short and in the long term on the routes and on global port facilities. Our research outlines a scenario in which the new Panama, while remaining a hub of global importance, reinforces its role, above all, as a great regional American Canal which will have the effect of strengthening the ports on the Atlantic coast of the United States. This will also have an impact on the Mediterranean; strengthening the centrality of the routes which originate in Asia and head toward the east coast of the United States. Then, there is a direct impact expected on the Mediterranean where is estimated an average yearly increase of 2.2% in the volume of goods traded, as a direct consequence of the new Panama, is estimated. This whole scenario makes it even more urgent that the Italian ports prepare themselves to be more competitive and to act as a logistic platform in the heart of the Mediterranean."

Below, there are the main data of the study that will be integrally available tomorrow on:

WWW.SRM-MARITIMEECONOMY.COM
FOCUS

1) The main data on the Panama Canal before the expansion

- Between 3% and 4% of world trade travels through the Panama Canal; as well as 14.3% of grains globally traded, 5.6% of the chemical commodities and 3.7% of containers.

- 144 routes, 1,700 ports and countries in the world are involved in the passage through the Canal.

- The annual traffic numbered almost 14,000 ships; the delivered goods were about 230 million tons, 138 million (60%) of which were bound for the Atlantic-Pacific direction while 92 million (40%) for the Pacific-Atlantic direction.

- In the Atlantic-Pacific direction, the role of Far East countries was major while, in the opposite direction, traffic was mainly bound for the East coast of the US and towards Europe. Between 2001 and 2015, the traffic bound for Asia grew by +2.4% while that of the East Coast of the USA grew by +17%.

- The countries which mostly used the Canal were the United States, China, Chile, Japan and Peru. Amongst the first 20 countries also rank: Spain (13th), Netherlands (14th), United Kingdom (17th), Belgium (19th) and Italy (20th).

- The 4 busiest routes were: East Coast of the United States – Asia with a total transit of goods amounted to 35.8% of the total; US East Coast – West Coast South America with 16%; US East Coast – West Coast of Central America with 7% and the route Europe - West Coast South America with 5.9%.

- The Panama Canal generated an annual revenue for the country of $2.7 billion and a managing cost of $1.25.

- The direct contribution to the GDP of the country accounts for 6%, and adding the indirect contribution the percentage becomes 25%.

- The average transit time of the Panama Canal is slightly above 12 hours in one direction. The total average time (transit + wait time) is almost 31 hours.

- Panama also has an important Free-Zone near the Canal: The Colon Free Zone which counts about 2,600 companies. Its trade amounts to $21.6 billion $11.4 billion of which are export; the Free Zone imports mainly from China ($3.5 billion), followed by Singapore ($1.9 billion) and the United States ($922 million). Among the top 10 countries there is also Belgium ($236 million); the United Kingdom ($166 million) and Germany ($165 million). Italy accounts for $157 million.

- It is expected that the Free-Zone will be enhanced with the expansion of the Panama Canal.
2) **The characteristics of the expansion work and its impact**

- The new Canal, which adds to the previous one, has provided for the realization of two locks, one the Atlantic Ocean and the other on the Pacific. Each is composed of three chambers 55 meters large, 427 meters long and 18.3 meters deep. They are equipped with horizontally sliding sluice systems which can overcome the existing difference in level between the oceans and Lake Gatun.

- The realization of the project, started in 2007, was assigned to an international consortium "Grupo Unidos por el Canal" which includes the Italian Salini Impregilo SpA (consortium leader), the Spanish company Sacyr Vallhermoso SA, the Belgian Jan de Nul and the Panamanian CUSA.

- The costs of expansion of the Canal in the initial phase amounted to $5.2 billion. It is estimated that the costs reached $6.2 billion in phase of realization.

- The Canal employs 9,925 employees and over 30,000 jobs have been created since the work of expansion have begun.

- The revenues deriving from the annual management of the Canal as a result of the expansion will rise potentially up to $4 billion.

3) **The three main effects which the expansion of the Canal will have**

- The new Canal allows the passage of larger vessels. The new locks will allow the passage of container ships up to 13,000/14,000 TEUs; the limit of the existing Canal is of 4,500-5,000 TEU; The transit of the Canal will allow the passage of a greater load capacity (the Megaships).

- A new type of vessel will also be able to pass. A new market segment will expand the offer of Panama: this is the LNG (Liquified Natural Gas) and LPG (Liquified Petroleum Gas).

- The number of transits in the medium to long term will increase. The passage will potentially allow the simultaneous transit of 3 ships: 2 of smaller size in the old locks, and 1 through the new ones; potentially, the passage of further 12 daily vessels will be made possible, adding to the pre-existing 38 for a potential total maximum of 50 transits per day.

4) **Main evidence on the impact of the new Panama Canal on the routes and on ports**

*Impact on port facilities in Panama*

- Today, the Panamanian ports are home to the world's major shipping companies including Maersk, CMA-CGM, MSC, APL / MOL, Hapag Lloyd, Evergreen. The expansion will likely extend the Canal's relationships to other leading global carriers.

- The Panamanian ports are handled by the main terminal companies (e.g. Hutchinson Port Holdings, PSA, Evergreen) that, in view of the expansion, are making major investments. As proof of the interest toward the area for the new terminal of Corozal, on the Pacific, 4 terminal
operators of global significance came forward: APM (Holland), Terminal Link (France), PSA (Singapore) and Terminal Investment Limited (Belgium).

Evidence of the impact on the port and maritime traffic toward the North America

- The expansion of the Canal will help broaden the strategic dimension of Panama allowing it to become an international maritime hub, especially for the American Continent and the USA. Most of the cargo in transit will have as a destination the main ports on the East coast of the United States. There are a number of expansion projects of US ports under way: the ports of New York and New Jersey have completed the dredging operations that will allow the accommodation of larger vessels, as well as the ports of Savannah and Charleston.

- Between 2009 and 2014 the US Federal Government allocated $320 million for infrastructure projects along the East and Gulf Coasts. These investments will allow to intercept the new ships Post-Panamax circulating in the Canal.

- With the expansion, Panama will increase its potential as a hub and logistics port of reference with Latin America and the Caribbean.

5) Panama-Suez comparison and respective interdependencies

- On some international routes, the main competitor of Panama is Suez. The extension of the Canal aims not to lose market share; an example of competition is represented by the Far East-US East Coast route which is one of the most travelled in the world (7.4 million TEUs per year): in 2010, 15 vessels passed weekly via Panama and 4 via Suez, in 2015, 16 ships travelled via Panama and 9 via Suez; an increase for both Canals, but higher for Suez.

- On the basis of a simulation carried out in a study on ships of 12,000 TEUs which will be able to pass through the new Canal, in terms of time and costs, Panama remains competitive on some strategic routes. Panama competes with Suez both on the Shanghai-New York route where estimates say that the cost to transit per TEU is $820 (to and fro), against the $830 of Suez, both on the route Hong Kong-New York where the cost of the trip per TEU is $830 against the $855 of Suez. On the routes Shanghai-Rotterdam and Yokohama (JAP)-Rotterdam, instead, the transit through Suez remains more competitive.

- However, a measure of the Suez Canal Authority of very recent approval (6th June 2016) launched a tariff line that provides a discount of up to 65% on some container routes coming from the American ports on the East Coast and bound toward the ports of South and South East Asia. This decision may be a strong incentive to intensify the passages through Suez, increase their competitiveness against Panama (which will probably be urged to review its tariff's strategies) and discourage the routes that circumnavigate the Cape of Good Hope also as a result of the decrease in the price of oil. All this will contribute to increase the centrality of the Mediterranean and to strengthen the routes of traffic which coming from the Atlantic, enters the Mediterranean and after Suez continue toward the Far East.

- At the same time, also China is actively working to open a maritime "Silk Road" of immediate interest for its Mediterranean trades; in relation to this strategy there is a strengthening of the routes which from the Far East are directed toward the Mediterranean.
The possible impacts of the new Panama Canal on world trade, and on the Euro-Mediterranean Area

- The expansion of the Panama Canal will have a direct impact on the economies of scale of the maritime shipping companies.

- An overall increase in the volume of goods transported is estimated by 15% to 2020, equal to 3% a year.

- As a result of the expansion of the Canal the traffic coming and bound for the following four macro-areas will grow more: Asia (mainly China, Taiwan, Japan) with a potential increase of 4.3% per year; South America (Chile, Colombia, Ecuador, Venezuela and Peru) with 4%; Central America (Guatemala, Mexico, Panama and Trinidad & Tobago) with 3.7%; North America (USA, Canada) with 3.5%.

- Even Europe (represented by Belgium, Netherlands, Italy, Spain and the United Kingdom) and Italy will benefit from the expansion of the Panama Canal. In particular, it evaluates an average annual increase of the tonnes exchanged by 2.2%.

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