

The Quality of Port Infrastructure ranking: Some insights

Peter de Langen, Eindhoven University of Technology, Eindhoven, The Netherlands, **Theo Notteboom**, University of Antwerp, Antwerp, Belgium, **Thanos Pallis**, University of the Aegean, Chios, Greece

There is something about rankings. In sports, and increasingly in business, rankings abound. We have rankings of the best places to live, the most knowledge intensive regions of the world and the most competitive economies. In the latter case, countries are compared across economic performance criteria. One of the most influential is the Global Competitiveness Index (GCI) of the World Economic Forum (WEF). The 2012-2013 WEF ranking appeared last September. Switzerland is on top, moving ahead of Singapore. The WEF ranking consists of over 100 ranked items, classified in 12 pillars. For each pillar, some rankings are survey based, while others are based on actual data.

Through the provision of cost-efficient, reliable and frequent connections to overseas and inland markets seaports play an essential role in facilitating trade and in increasing the competitiveness of a nation or region. It is no surprise that Pillar 2 of the GCI dealing with infrastructure includes a component on the 'Quality of Port Infrastructure'. This component is based on survey results where business leaders assess the competitiveness of economies. Like most other rankings in business, the ranking methodology is not perfect. For one, the ranking is based on perceptions of business leaders, which may not always be accurate. In academia, scholars are well aware that 'stated preferences' (based on perceptions and 'what if' situations) and 'revealed preferences' (based on actual economic behaviour) do not always point to the same direction. Next, the business leaders rank a variety of indicators, so they rank the quality of port infrastructure probably more in relation to other variables, as compared to other countries. Third, cultural differences are likely to affect results. In some cultures more outspoken and straightforward scores are given, while respondents in other cultures are less inclined to score really high or low. This is relevant as the highest-ranking countries, The Netherlands and Singapore, score a 6.8 on a maximum of 7.

These disclaimers apply, but still, most industry observers would not be too surprised to find these two countries at the top of the rankings. Moving from a 4.5 to a 4.6 may not be a reason to uncork the bottles, but the big picture is probably correct. Therefore, we think it is worth discussing some important findings from these rankings.

Huge differences between the BRIC countries

First of all, the BRIC countries, whose economic performance is crucial for global economic growth, overall do not score high, with substantial differences between them. Brazil ranks 127th of 141, with a score of just 2.7. Furthermore, the country's score has gone down in the last decade. This is a huge issue as Brazil has a vast potential for increased exports as well as imports. Important improvements in the port sector are required to enable this, both at the level of infrastructure provision, port operations and unfolding port governance reform processes.

Russia is somewhat better off with a score of 3.7, India even a bit better (4.0), whereas China scores a 4.4. Especially this last result is intriguing: even though China has the largest ports in the world and advances substantial investments in port infrastructure, its ranking is average. This may hint at institutional and procedural

bottlenecks.

Overall, these results suggest a huge unlocked potential for international trade. This applies to the BRIC, but also to the 'next eleven' - Bangladesh, Egypt, Indonesia, Iran, Mexico, Nigeria, Pakistan, Philippines, Turkey, South Korea and Vietnam - that were identified by Goldman Sachs as large countries with huge growth potential.

The performance of the only fully private port sector (the UK) is improving

Next, it is interesting to look at the performance of the UK, the only country with a fully private port industry. The UK scores a 5.8, good enough to reach the 13th position. In the last five years, the UK's score has gone up year by year. So even though some observers have voiced concerns over the lack of public control over a vital sector, this WEF ranking suggests the UK ports industry is performing well without the public funding that goes into the industry in many other countries.

France's port reform has not (yet) had an effect

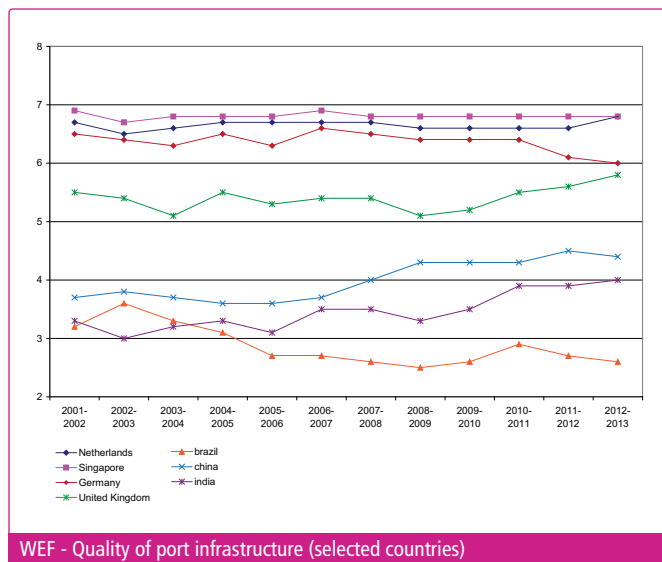
It may be too early to expect results, but France's score, after the port reform that was finalised in 2011, suggests that the effects are still to come. After scores around 6 in the period 2004-2010, France is now down to 5.4. This may be due to the labour unrest (in 2010 and 2011) that negatively impacted the image of French ports (in particular Marseille). It will be interesting to see how business leaders rank France's port system in the coming years. Indeed, there seems to be a considerable time lag between a port reform process and an improved score in the WEF ranking: Ireland pursued port reform in the late 1990s but only started to score better since 2007.

Germany seems to slide down

Germany may be a case in point to suggest that a high quality port infrastructure needs to be nurtured. Germany ranked 4th in 2007, with a score of 6.6, but has since been sliding down to 6.0, and the 10th place. The score is certainly still good, but does seem to suggest that the quality of the port infrastructure is less considered as of global benchmark quality. Perhaps the investments in Wilhelmshafen and the associated port competition dynamics will turn this trend around.

Some island economies have potential to improve

Even the landlocked countries receive a score that may be related to intermodal infrastructure, as well as the quality of ports in neighbouring countries. Switzerland is the highest ranking landlocked country (5.2), landlocked Kyrgyzstan has the lowest score of all countries (1.5). Ports are certainly also important for these countries, but especially important for island economies.



Most countries actually trade more overland than by sea. For instance, the US trades more (in value terms) overland with Mexico and Canada than overseas. Island countries are fully dependent on efficient and effective ports for trade – in volume, airfreight is only a fraction of maritime trade. In that perspective, one would have expected that more islands would obtain a higher position in the rankings. Iceland is the first (6.2), followed by the UK. But even somewhat below the OECD average we find large islands or island groups such as New Zealand (5.5), Japan (5.2) and Australia (5.1). These scores perhaps should be a reason for rethinking regulations and public policies regarding seaports. Hence, island nations typically encounter a range of challenges in dealing with their respective and often elaborate port systems, such as the lack of competition due to the existence of captive hinterlands for local ports and the pros and cons of introducing one or more hub ports serving the entire port system.

The state and overall ranking of port infrastructure indicates the extent that the port system of any given country stands as a facilitator for international trade and an enabler for seaborne trade accommodation. Even though it is understandable that WEF only devotes one item to ports, there is more to say about ports than their quality of infrastructure. More detailed port user satisfaction can certainly provide additional insights. A more complete full picture will be accessible when the WEF ranking will be accompanied by the measurement of how users evaluate the port services, in particular those attributes that are most important to them. Efforts are underway to develop more comprehensive port user satisfaction surveys, but none have yet reached the global scale. More detailed rankings certainly have merits. They allow decision-makers—whether governments, port authorities, or service providers—and ports to fine tune operations to match customers' expectations. They also enhance competition by allocating resources to where they will have the greatest impact.

All in all, there is enough in this Quality of Port Infrastructure indicator to make it relevant. So for those that can handle another ranking: mark your agendas for next year. The next edition of the Global Competitiveness Report will be out in September 2013.

ABOUT THE ORGANISATION



PortEconomics is a web-based initiative aiming at generating and disseminating knowledge about seaports (www.porteconomics.eu). It

is developed and empowered by the members of the PortEconomics group, who are actively involved in academic and contract research in port economics, management, and policy. Since October 2012, Port Technology International and PortEconomics are engaged in a partnership.

ABOUT THE AUTHORS



Prof. Dr. Peter de Langen works at Port of Rotterdam Authority, department Corporate Strategy, as senior advisor and is involved in various strategy projects both in Rotterdam and for the international activities of Port of Rotterdam Authority. He also holds a part-time position as professor Cargo Transport & Logistics, at Eindhoven University of Technology. He published >30 articles in academic journals and various books on such issues as port selection, port policy, and international transport & logistics chains. He is the chairman of the Innovation Advisory Council of the Dutch Inland Shipping Innovation Center and co-director of the PortEconomics initiative.



Dr. Thanos Pallis is Jean Monnet Professor in European Port Policy at the Department of Shipping, Trade and Transport, University of the Aegean, Greece, Adjunct professor at Dalhousie University, Canada and lectures at the University of Antwerp, Belgium. A regular contributor to OECD, UNCTAD, IAPH, AIVP and ESPO discussions on ports, Thanos has served the General Secretary for Ports & Port Policy, Ministry of Development, Competitiveness and Shipping, Greece and was Fulbright scholar at the Centre for Energy, Marine Transportation and Public Policy, Columbia University, New York. He is the author of several port studies, including the book *European Port Policy: The search for a long-term strategy*, and co-director of the PortEconomics web-initiative



Dr. Theo Notteboom is president of ITMMA (an institute of the University of Antwerp), professor at the University of Antwerp, a part-time professor at the Antwerp Maritime Academy and a visiting professor at Dalian Maritime University in China, World Maritime University in Sweden and Nanyang Technological University in Singapore. He published widely on port and maritime economics. He is also President of International Association of Maritime Economists (IAME), Chairman of the Board of Directors of Belgian Institute of Transport Organizers (BITO), an institute of the Belgian Federal Government, and co-director of the PortEconomics initiative.

ENQUIRIES

Dr. Peter de Langen
Department of Industrial Engineering and Innovation Science
Eindhoven University of Technology
E-mail: P.W.d.Langens@tue.nl

Prof. Dr. Thanos Pallis
Department of Shipping, Trade and Transport
University of the Aegean,
2 Korai St. Chios 82100, Greece
apallis@aegean.gr

Prof. Dr. Theo Notteboom
ITMMA – University of Antwerp
Kipdorp 59, 2000 Antwerp (Belgium)
theo.notteboom@ua.ac.be