

One Belt, One Road and hundreds of European ports: How the OBOR policy might affect European port-hinterland dynamics

Theo Notteboom

Professor and High-End Foreign Expert (SAFEA), Dalian Maritime University, China

Part-time professor, University of Antwerp and Antwerp Maritime Academy, Belgium
Chair professor 'Port of Ghent', Maritime Institute, Ghent University, Belgium
Immediate past President, International Association of Maritime Economists (IAME)
Co-Director, Port Economics.eu

ESPO 2016 conference
Dublin, 1-3 June 2016



Contents

1. **OBOR: What and why?**
2. Current situation OBOR in relation to Europe
3. Possible impact on port hierarchy in Europe





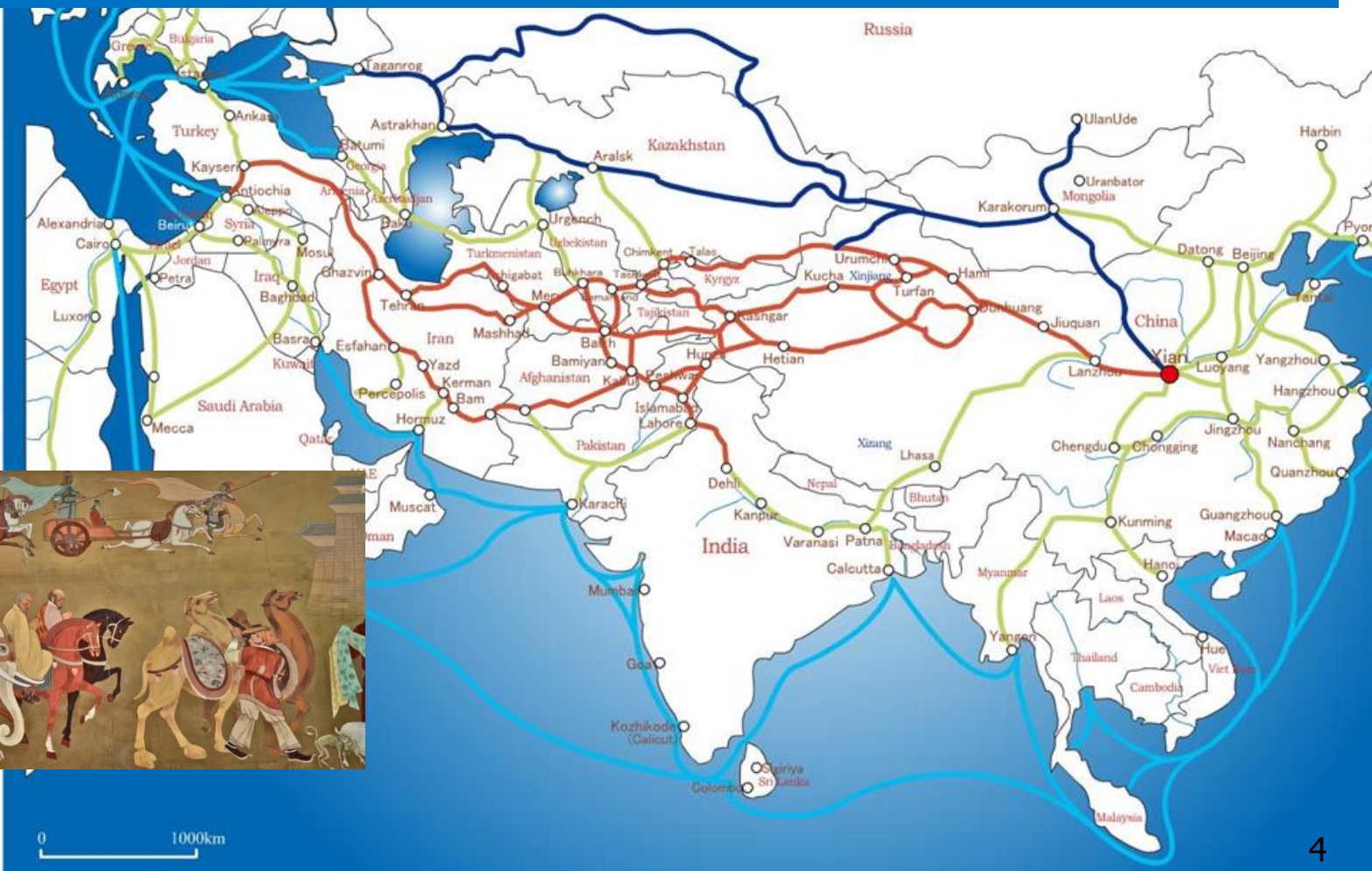
One Belt, One Road (OBOR)



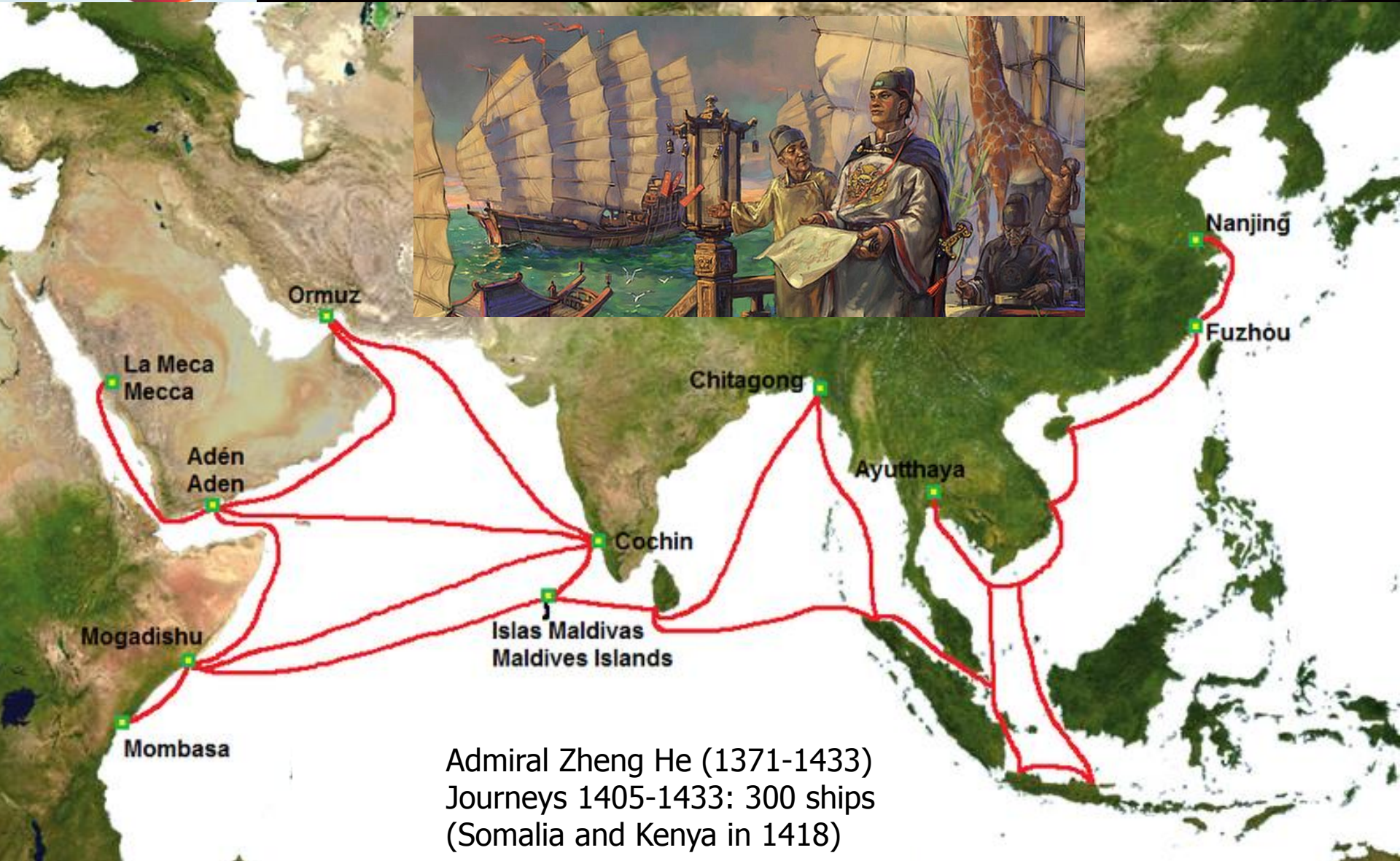
- **Initiative** launched in September/October 2013 by Xi Jinping to “break the connectivity bottleneck” in Asia
- March 2015: ‘One Belt, One Road’ initiatives **action plan**.
- Already **60 countries** involved (impacting 4.4 billion people)
- **Bottomless funding** possibilities?
 - Silk Road Fund: USD 40 bln
 - Asian Infrastructure Investment Bank (AIIB): registered capital of USD 100 bln (of which USD 50 bln from China)
 - New Development Bank: USD 50 bln
 - CITIC-group: USD 113 bln support
 - Etc..

Key considerations: Historical/cultural Symbolic significance of historic Silk Road

“China is a civilization state rather than a nation state” (Martin Jacques, 2010)
Ancient trade routes established during the Han dynasty (207 BC to 220 AD)



Key considerations: Historical/cultural Symbolic significance of Zheng He's exploits

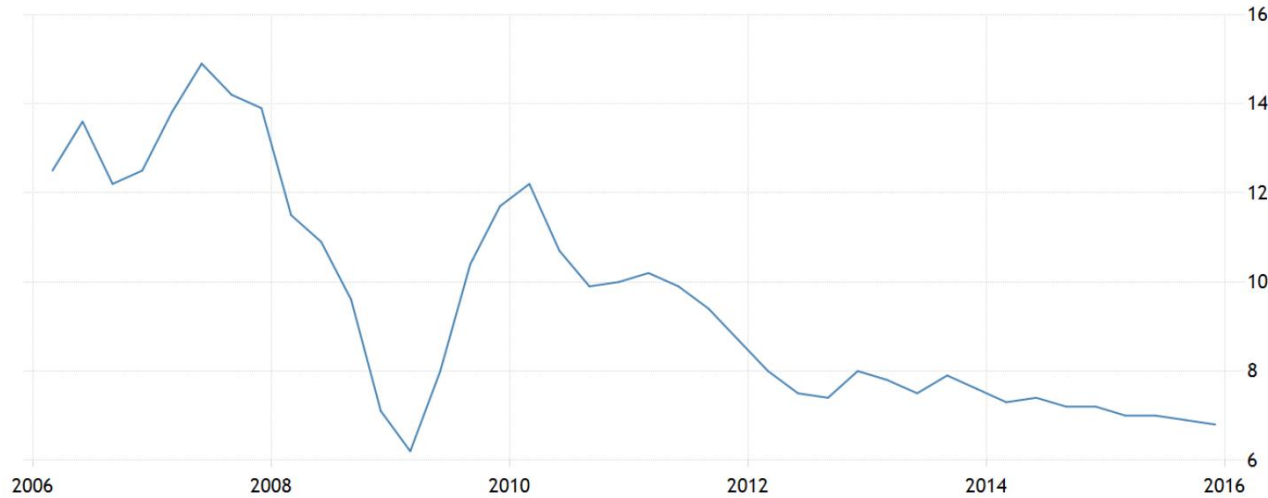


Admiral Zheng He (1371-1433)
Journeys 1405-1433: 300 ships
(Somalia and Kenya in 1418)

Key considerations: Geo-economic factors

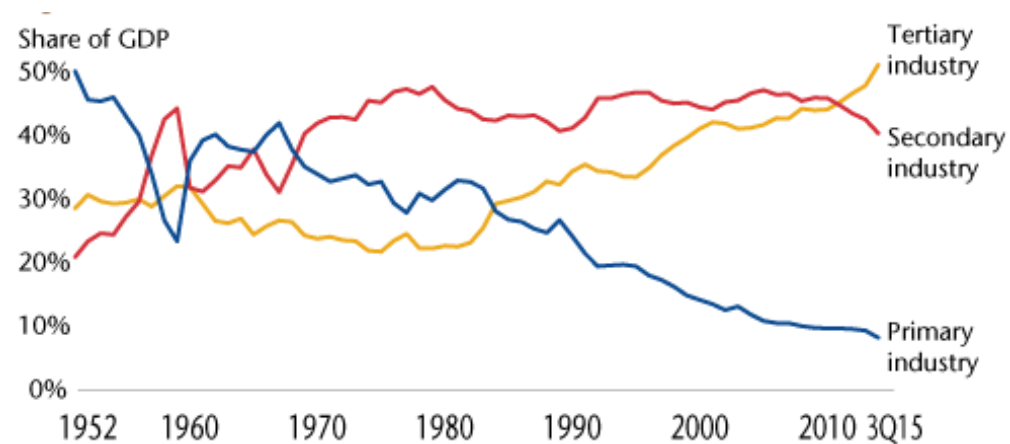
Search for growth given slower economic growth in China

GDP annual growth rate in China (in %)



Source: National Bureau of Statistics China

From production to services

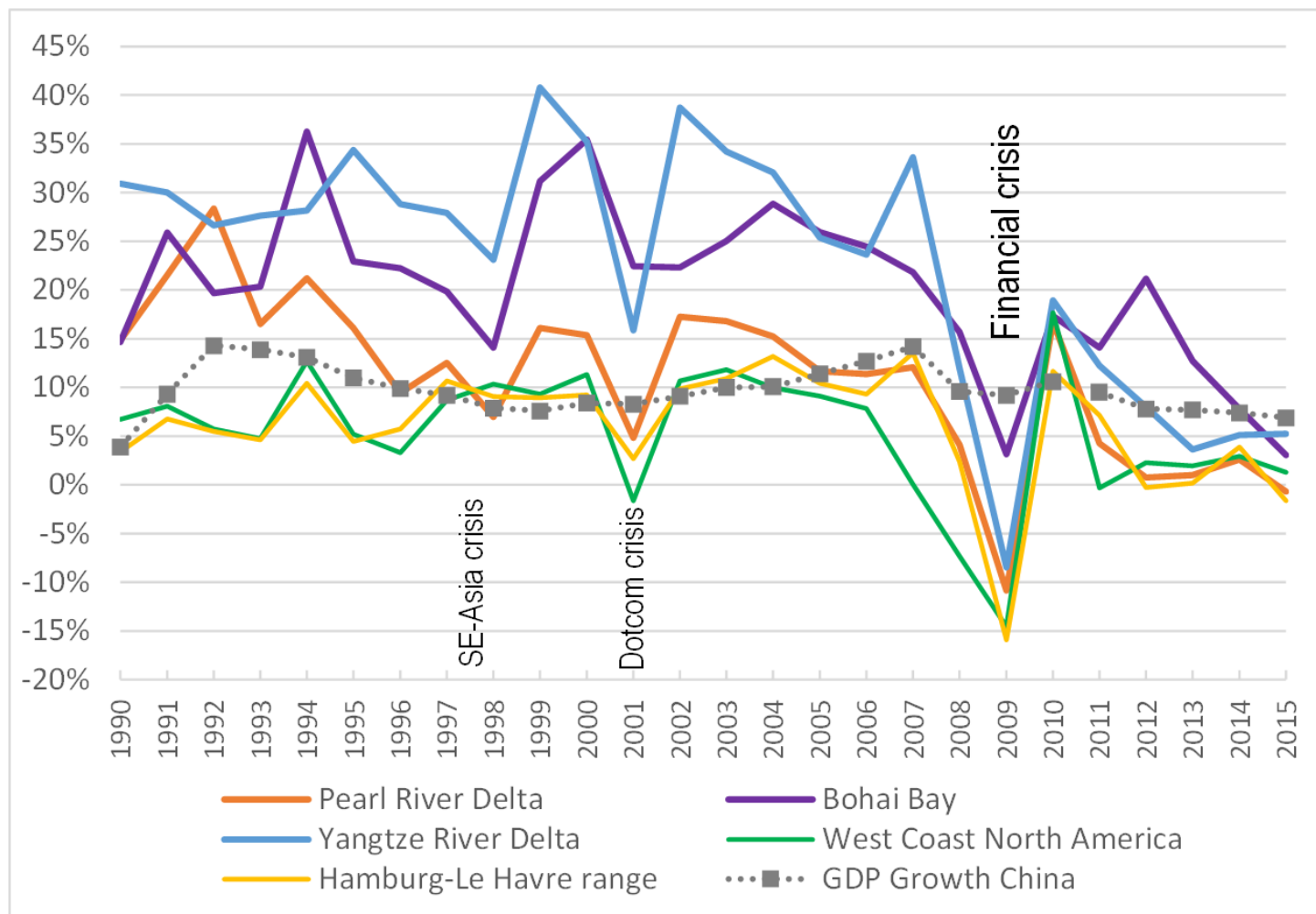


Source: CEIC

Key considerations: Geo-economic factors

Search for growth given slower economic growth in China

Figure 3: Y-o-y growth rate in Chinese port regions and key port regions in Europa and North America



Source: own compilation based on data individual port authorities

Key considerations: Geo-economic factors

Help to resolve overcapacity of various industries within China

World market shares (2014,%)

Steel producers		Steel users	
China	50	China	46
Japan	7	United States	7
United States	7	India	5
India	5	Japan	4
Republic of Korea	4	Republic of Korea	4
Russian Federation	4	Russian Federation	3
Germany	3	Transition economies	3
Turkey	2	Germany	3
Brazil	2	Turkey	2
Ukraine	2	Mexico	1
Other	15	Other	22

China has vowed to tackle overcapacity in steel, aluminum, cement, plate glass and ship building industry.

Source: UNCTAD (2015)

Overcapacity in global steel markets

Steel(million tonnes)	World		China		India		Japan		US		EU	
	2013	2014e	2013	2014e	2013	2014e	2013	2014e	2013	2014e	2013	2014e
Production	1607	1636	775	802	81	84	111	111	87	88	167	163
Consumption	1586	1629	729	751	79	83	70	70	103	104	153	156
Surplus(Deficit)	21	7	46	51	2	1	41	41	-16	-16	14	7

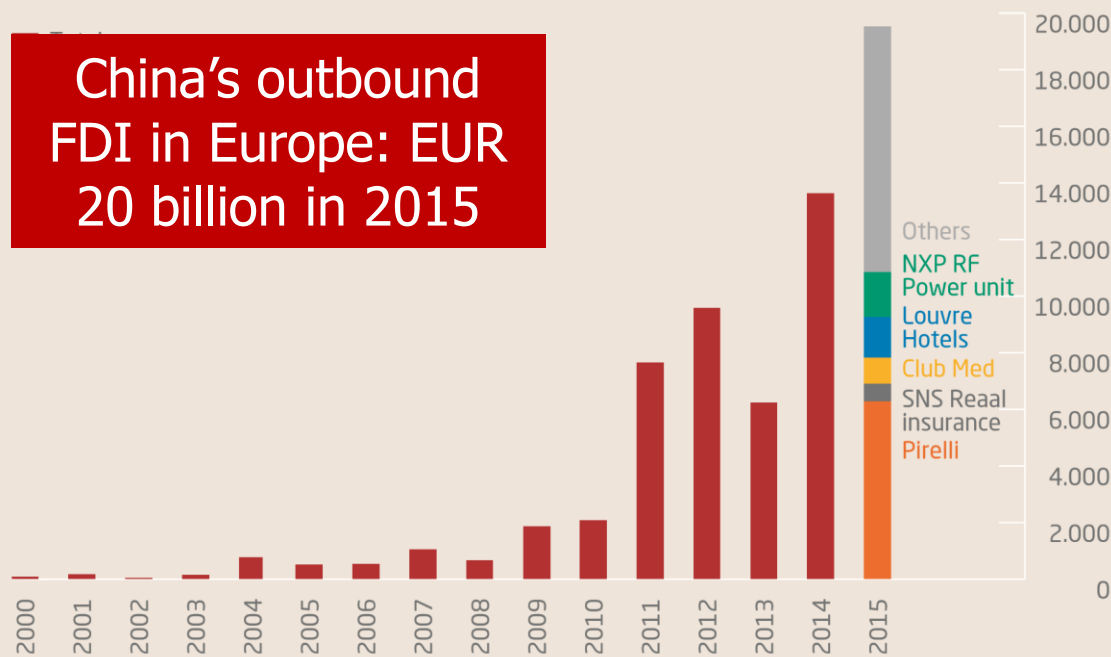
Source: EY Macquarie Research and Deutsche Bank



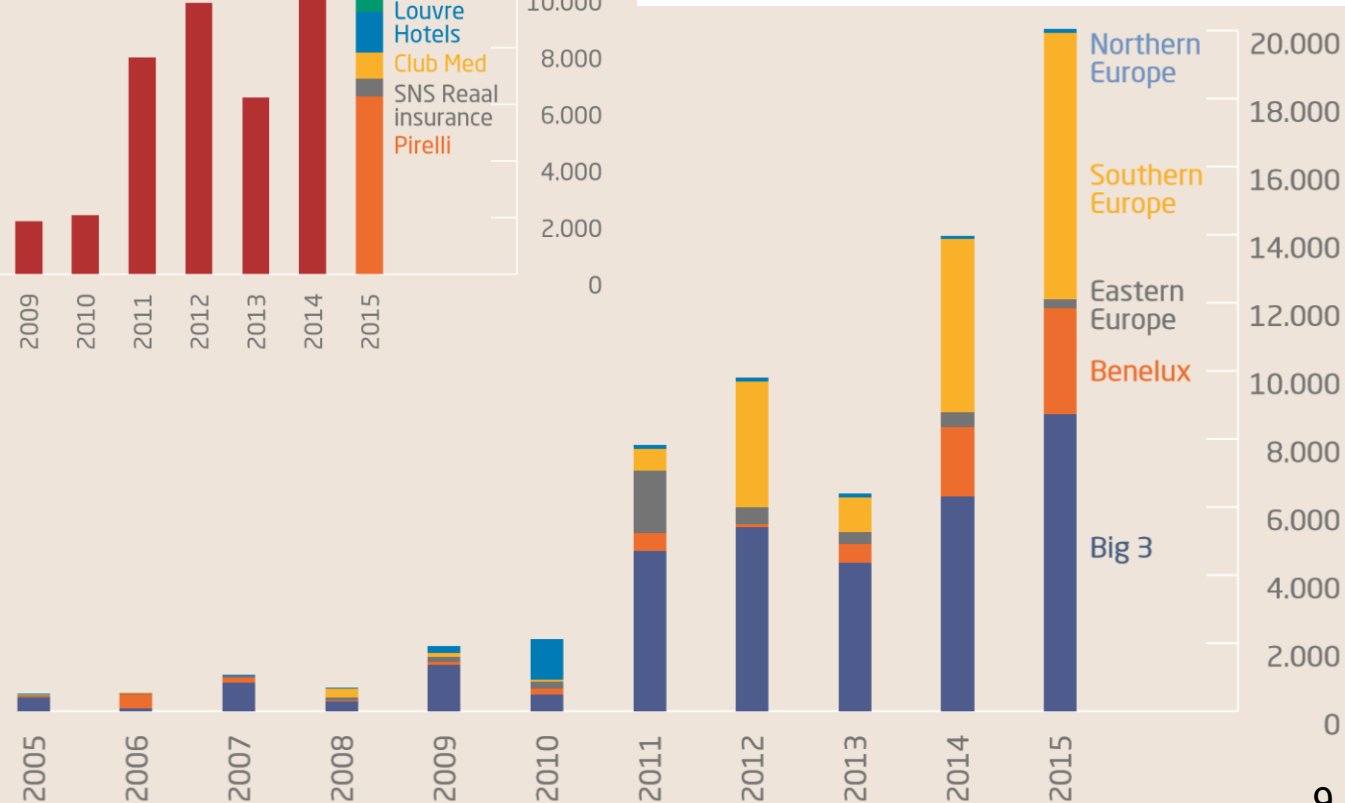
Key considerations: Geo-economic factors

Policy to channel foreign investments of Chinese companies +
Capital convergence and currency integration (RMB)

China's outbound
FDI in Europe: EUR
20 billion in 2015



Rise of Southern Europe
+ continued importance
Big 3 (UK, F, D)



Source: Hanemann and
Huotari (2016), *A New
Record Year for Chinese
Outbound Investment in
Europe*, Merics and
Rhodium Group

Key considerations

Geo-political factors



- Domestic: preserve its territorial integrity (Xinjiang province as hub to Central Asia)
- Counterbalance US-backed Trans-Pacific Partnership
- Bypass Russia economically, politically, and geographically (e.g. energy security, new inland route to Europe not involving transit through Russia)

Contents

1. OBOR: What and why?
2. **Current situation OBOR in relation to Europe**
3. Possible impact on port hierarchy in Europe

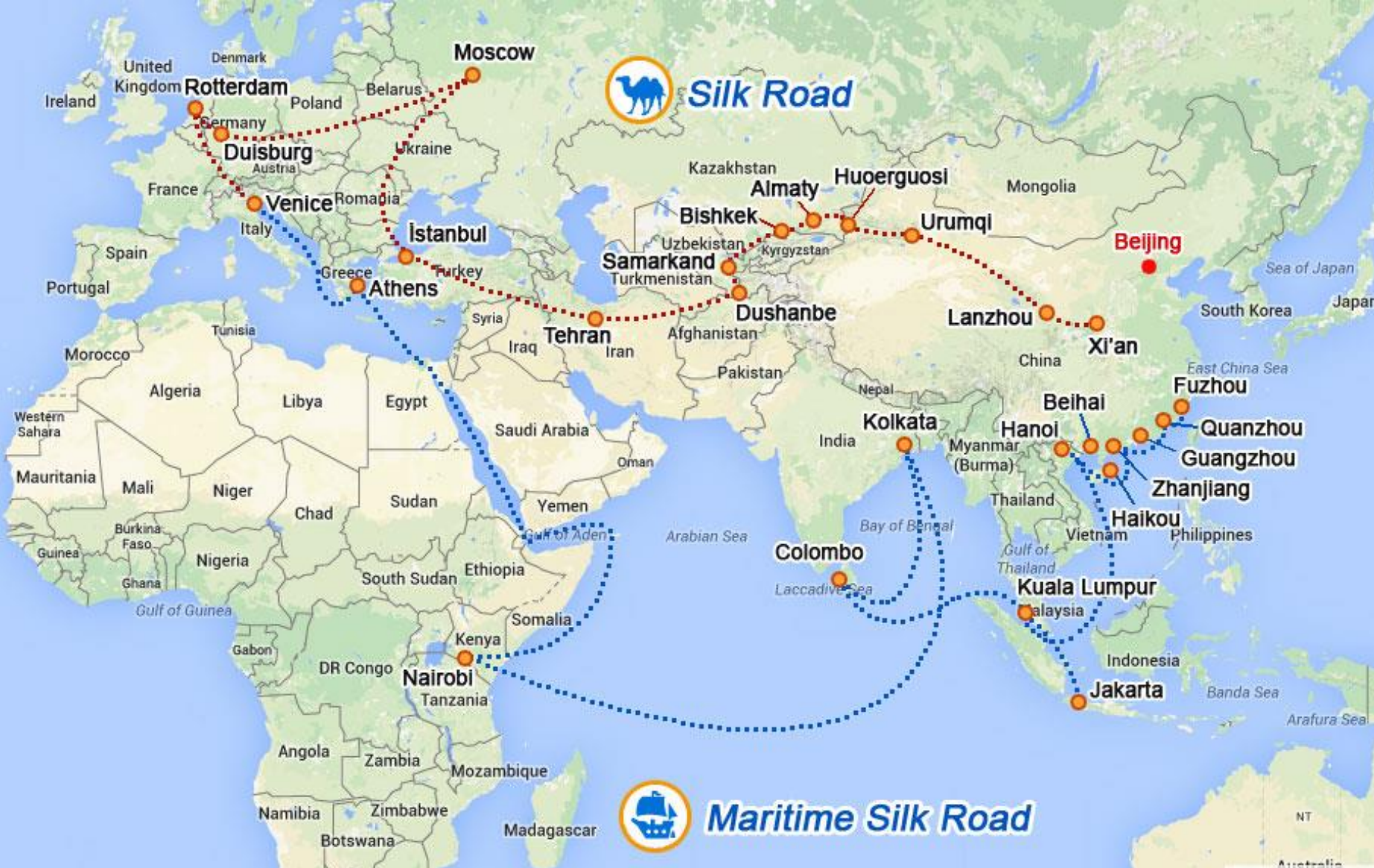




ESPO 2016 - Dublin
Prof. Theo Notteboom
OBOR and European ports

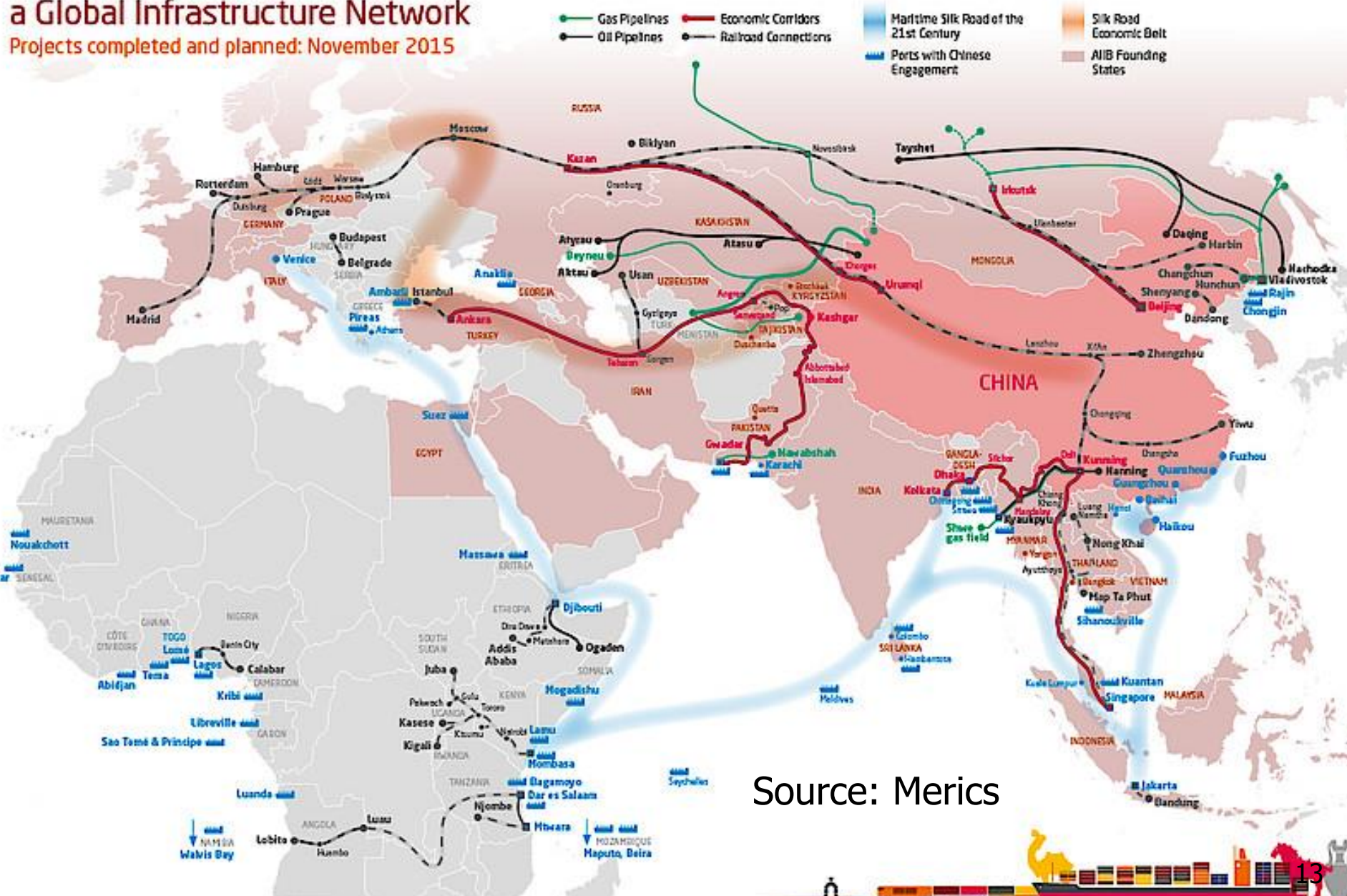
Land-based Silk Road Economic Belt (one Belt) and 21st century Maritime Silk Road (one Road)

(source: Xinhua net)



One Belt, One Road: With the Silk Road Initiative, China Aims to Build a Global Infrastructure Network

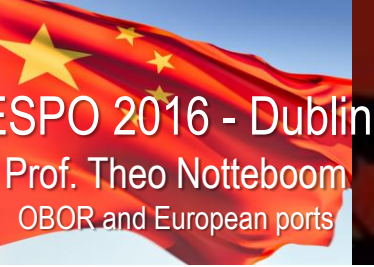
Projects completed and planned: November 2015





- Risks:






- Politically instability of some of the regions
- Governance risks (waste, corruption) in view of infrastructure development.
- Financial discipline and careful budgeting
 - About 25% of all China's overseas investments in construction and engineering projects between 2005 and 2014 have stalled or failed.
- Fair tender procedures?



List of 83 EU seaports in the Core Network

2. Maritime ports:

BELGIUM

- Antwerpen   
- Gent
- Oostende, Zeebrugge  

BULGARIA

- Burgas  

DENMARK

- Århus
- København Havn

GERMANY

- Bremerhaven, Bremen
- Hamburg
- Lübeck
- Rostock
- Wilhelmshaven



ESTONIA

- Tallinn

IRELAND

- Cork
- Dublin
- Limerick

GREECE

- Igoumenitsa
- Patras
- Pireus  
- Thessaloniki

SPAIN

- Algeciras
- Barcelona 
- Bilbao
- Cartagena
- Gijón
- A Coruña
- Las Palmas
- Palma de Mallorca
- Sevilla
- Tarragona
- Valencia

FRANCE

- Bordeaux
- Calais, Dunkerque 
- Le Havre 
- Marseille 
- Nantes Saint-Nazaire
- Rouen

ITALY

- Ancona
- Bari
- Genova 
- Gioia Tauro
- La Spezia
- Livorno
- Napoli
- Palermo
- Ravenna
- Taranto
- Trieste
- Venezia  

CYPRUS

- Lemesos

LATVIA

- Rīga
- Ventspils

LITHUANIA

- Klaipėda


MALTA

- Valetta, Marsaxlokk 


THE NETHERLANDS

- Amsterdam 
- Rotterdam  
- Terneuzen, Vlissingen

POLAND

- Gdansk, Gdynia 
- Świnoujście, Szczecin

PORTUGAL

- Leixões (Porto)
- Lisboa
- Sines 

ROMANIA

- Constanța

SLOVENIA

- Koper

FINLAND

- Helsinki
- Kotka, Hamina
- Turku

SWEDEN

- Göteborg
- Luleå
- Malmö
- Stockholm 
- Trelleborg

UNITED KINGDOM

- Belfast
- Bristol
- Cardiff, Newport
- Dover
- Felixstowe 
- Forth (Edinburgh)
- Glasgow
- Grimsby, Immingham
- Liverpool
- London 
- Southampton, Portsmouth
- Tees and Hartlepool

 **Key port in maritime silk road**

CT investments by Chinese interests

-  **China Cosco Shipping Group**
-  **SIPG**
-  **CMHI (via 49% in Terminal Link)**

CT investments by large Asian global terminal operators

-  **PSA (Singapore)**
-  **HPH (Hong Kong)**



(B) Many new China-Europe services via Russia:

- January 2008: "Beijing-Hamburg Container Express" (15 days, 6,200 miles)
- Summer 2011: Chongqing – Duisburg/Antwerp/Rotterdam (16-18 days; 11,179km)
- September 2013: Suzhou – Manzhouli – Warsaw Rail service (13 days, 11,200 km)
- January 2015 – Yiwu (Zhejiang Province) – Madrid (3 weeks, 8,111 miles)
- August 2015: Xiamen-Chengdu-Europe Express Rail to Lodz in Poland (15 days)
- September 2015: first trial train Changsha-Hamburg (15 days)
- April 2016: Wuhan-Lyon (16 days, > 11,000 km)
- Others: Zhengzhou (Henan)-Hamburg, Kunming-Rotterdam, Harbin-Hamburg

Volume passing from China to Europe across Kazakhstan: 13,200 TEU in 2013 and 46,100 TEU in 2015 (data Kazakhstan Railways KTZ).

(A) Trans-Siberian line:

- half of total volume linked to China (420,000 TEU in 2014)

- Russian RZD plans to invest \$6 billion by 2020 to increase speed

- Hasan-Rajin project (Trans-Korean Railway).

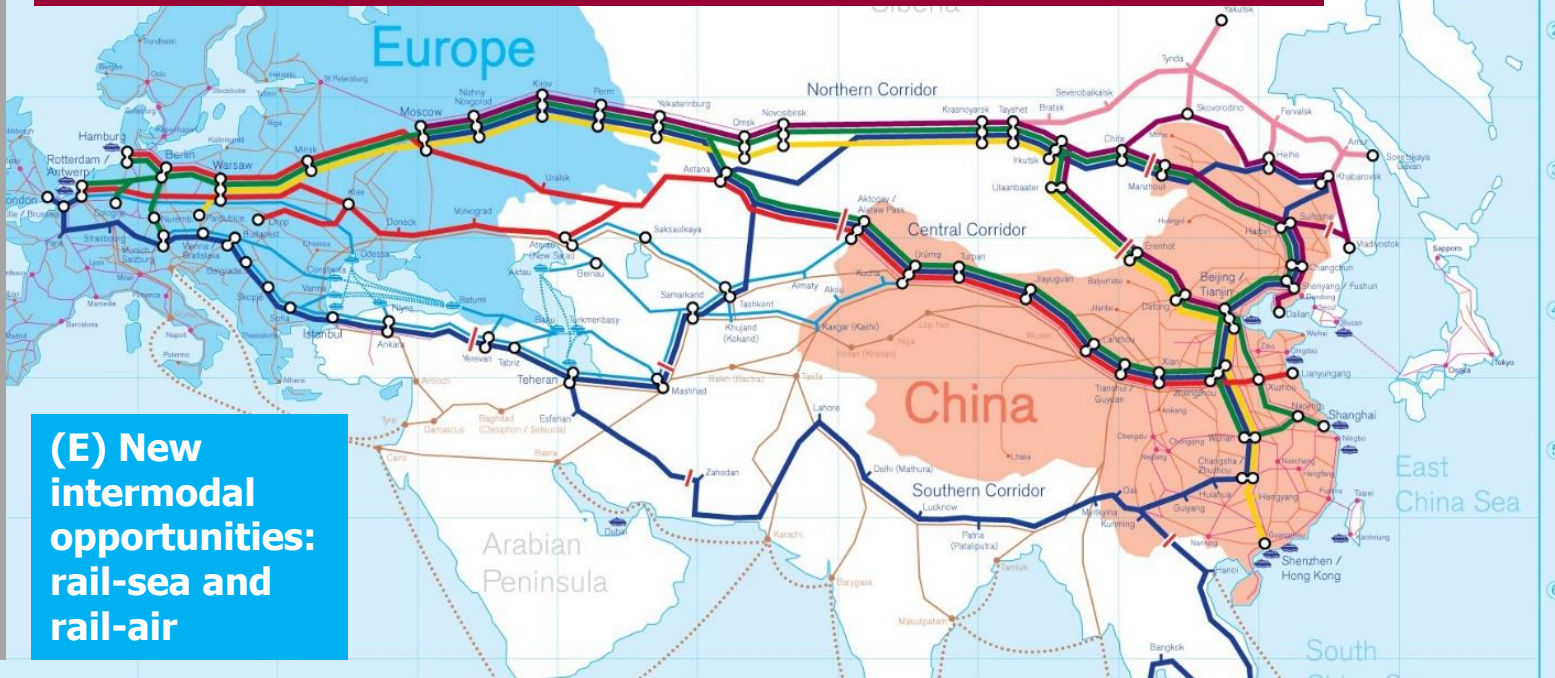
(E) New intermodal opportunities: rail-sea and rail-air

(C) Preparations for new services via Iran and Turkey:

February 15, 2016: first train between eastern Zhejiang Province and Tehran.
Turkey needs to complete a 75km section of rail between Turkey and Georgia.

(D) Operational and administrative issues

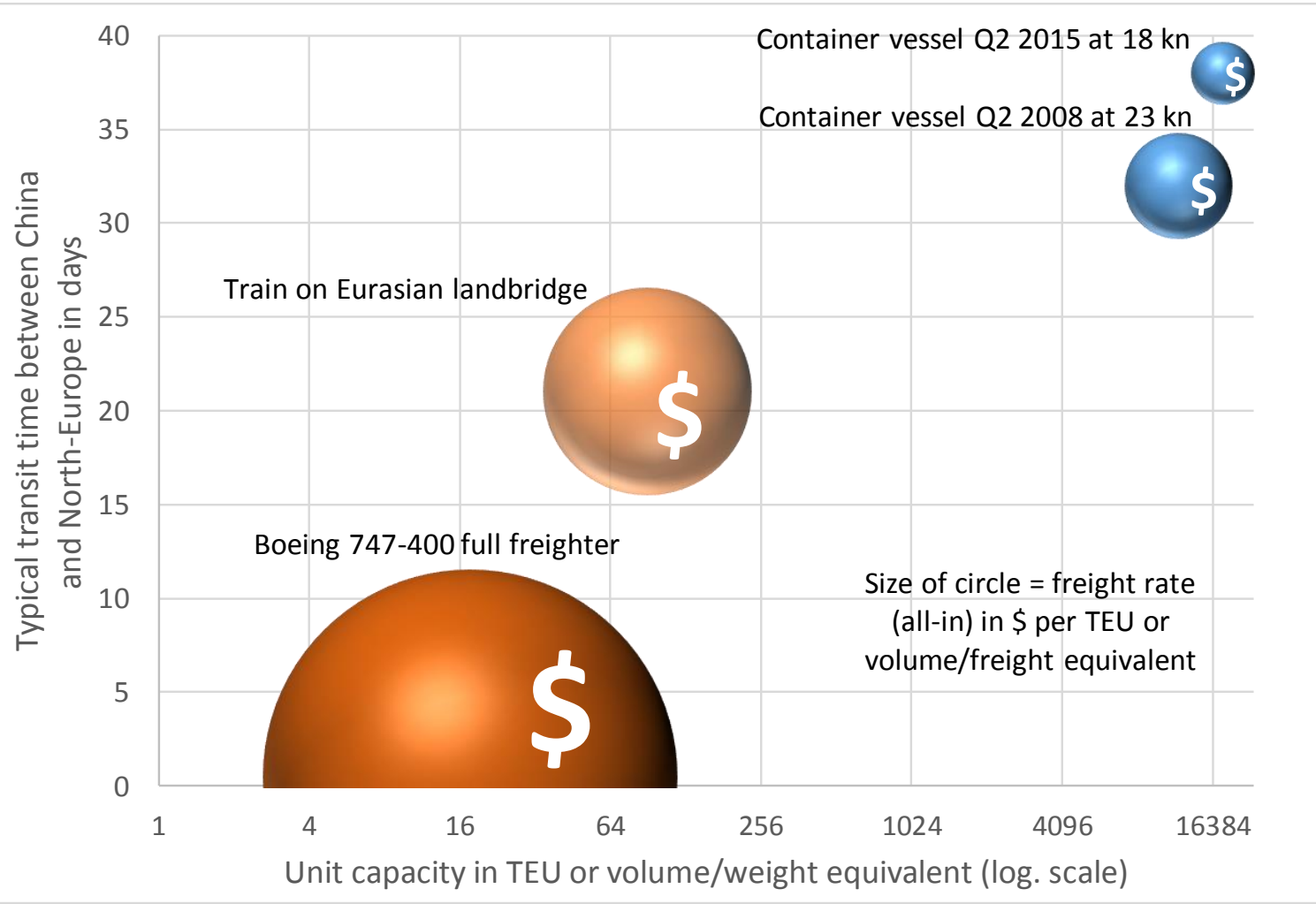
Different gauges than Russia, unified CIM/SMGS railway bill, General Terms and Conditions 'TransEurasia', digitalization, etc.





Eurasian landbridges

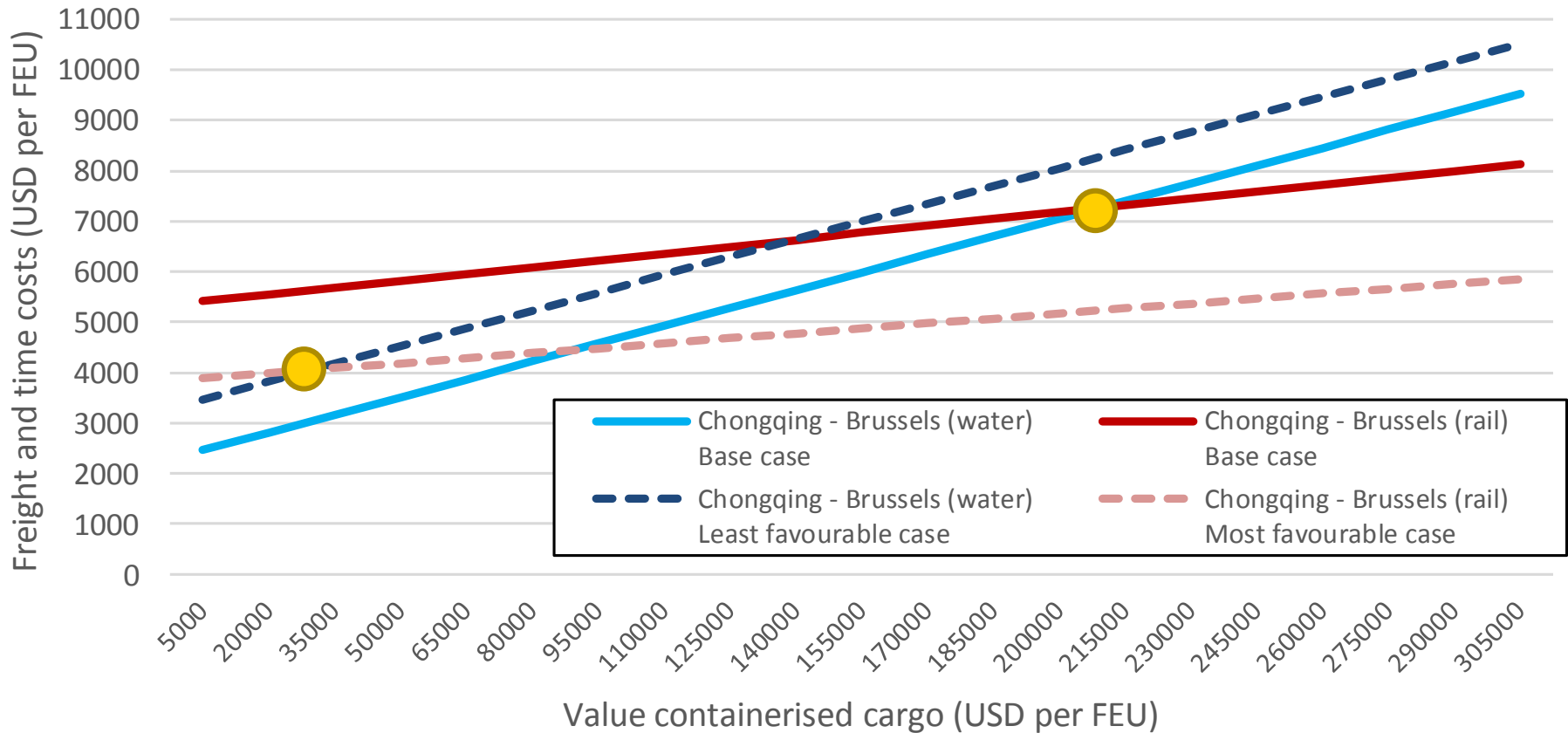
Freight transport options between China and North-Europe: Filling the gap?



Source: Notteboom (2015)

Current vs. most favourable scenario

Total costs (freight and time costs) - Chongqing - Brussels
 Eurasian rail vs. maritime route (Yangtze river/Suez route)



Base case = current situation (Q1 2016)
 Water - least favourable case = higher freight rates, higher fuel surcharges
 Rail - most favourable case = shorter transit times, lower rail rates

Contents

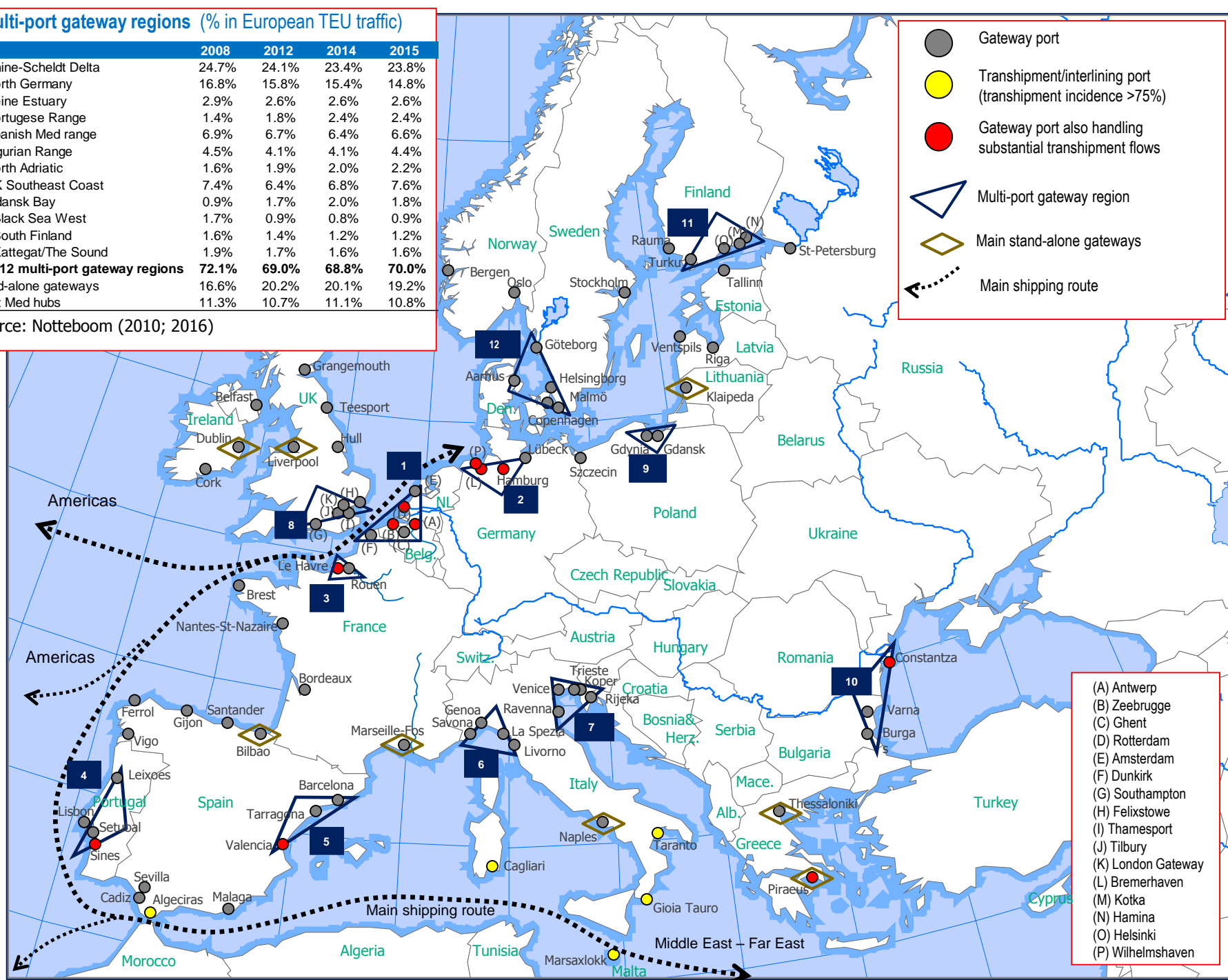
1. OBOR: What and why?
2. Current situation OBOR in relation to Europe
3. Possible impact on port hierarchy in Europe



Multi-port gateway regions (% in European TEU traffic)

	2008	2012	2014	2015
1. Rhine-Scheldt Delta	24.7%	24.1%	23.4%	23.8%
2. North Germany	16.8%	15.8%	15.4%	14.8%
3. Seine Estuary	2.9%	2.6%	2.6%	2.6%
4. Portugese Range	1.4%	1.8%	2.4%	2.4%
5. Spanish Med range	6.9%	6.7%	6.4%	6.6%
6. Ligurian Range	4.5%	4.1%	4.1%	4.4%
7. North Adriatic	1.6%	1.9%	2.0%	2.2%
8. UK Southeast Coast	7.4%	6.4%	6.8%	7.6%
9. Gdansk Bay	0.9%	1.7%	2.0%	1.8%
10. Black Sea West	1.7%	0.9%	0.8%	0.9%
11. South Finland	1.6%	1.4%	1.2%	1.2%
12. Kattegat/The Sound	1.9%	1.7%	1.6%	1.6%
ALL 12 multi-port gateway regions	72.1%	69.0%	68.8%	70.0%
Stand-alone gateways	16.6%	20.2%	20.1%	19.2%
West Med hubs	11.3%	10.7%	11.1%	10.8%

Source: Notteboom (2010; 2016)

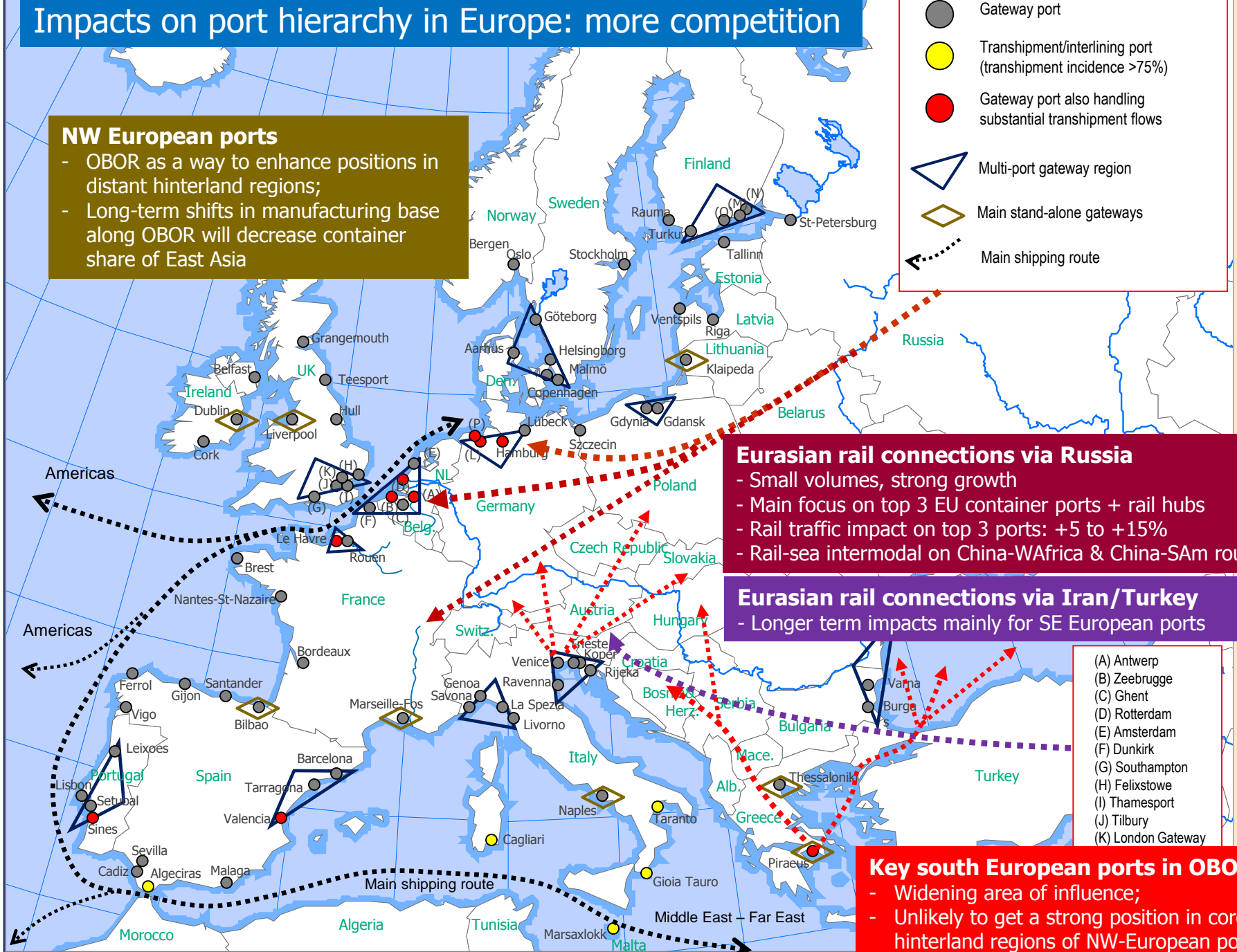


Impacts on port hierarchy in Europe: more competition

NW European ports

- OBOR as a way to enhance positions in distant hinterland regions;
- Long-term shifts in manufacturing base along OBOR will decrease container share of East Asia

- Gateway port
- Transshipment/interlining port (transshipment incidence >75%)
- Gateway port also handling substantial transshipment flows
- △ Multi-port gateway region
- ◇ Main stand-alone gateways
- Main shipping route



Eurasian rail connections via Russia

- Small volumes, strong growth
- Main focus on top 3 EU container ports + rail hubs
- Rail traffic impact on top 3 ports: +5 to +15%
- Rail-sea intermodal on China-WAfrica & China-SAM route

Eurasian rail connections via Iran/Turkey

- Longer term impacts mainly for SE European ports

- (A) Antwerp
- (B) Zeebrugge
- (C) Ghent
- (D) Rotterdam
- (E) Amsterdam
- (F) Dunkirk
- (G) Southampton
- (H) Felixstowe
- (I) Thamesport
- (J) Tilbury
- (K) London Gateway

Key south European ports in OBOR

- Widening area of influence;
- Unlikely to get a strong position in core hinterland regions of NW-European ports



Future outlook: terminal investments

1. More **Chinese terminal investments** in Europe, mainly through China Cosco Shipping Group and China Merchants Holdings International
2. Terminal strategy linked to new **Ocean Alliance** (CMA CGM, COSCO Container Lines, Evergreen and OOCL; starts in April 2017)
3. Role of '**windows of opportunity**' to effective control
4. "Core ports" for China in OBOR strategy: going beyond **Piraeus** and **Venice** ?



Thank you for your attention!

theo.notteboom@gmail.com