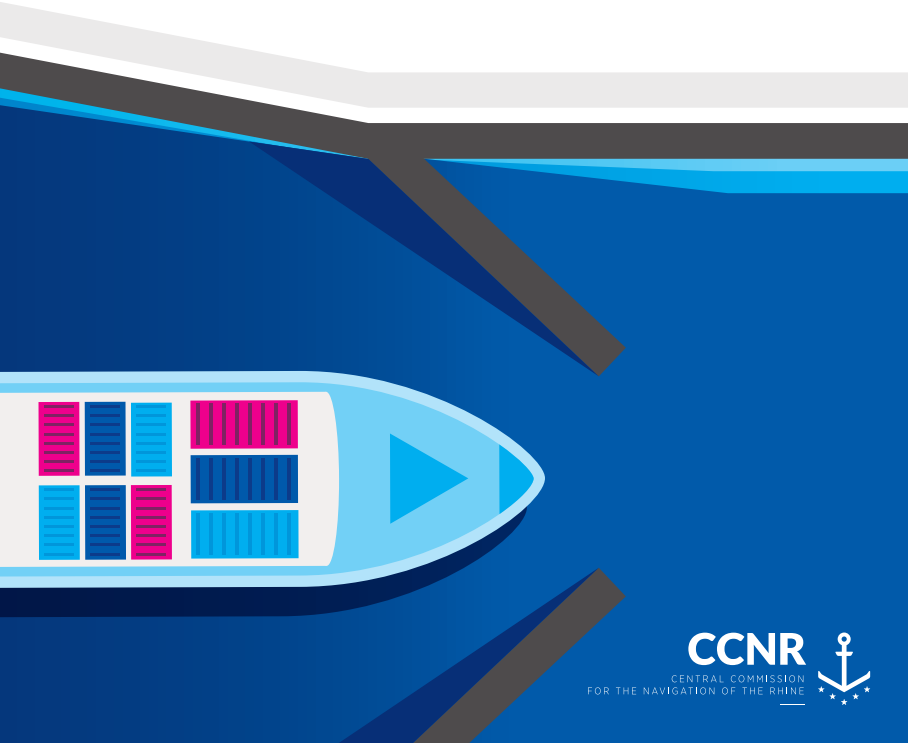
MARKET INSIGHT

INLAND NAVIGATION IN EUROPE

PUBLISHED IN

WINTER 2017/2018



CCNR
CENTRAL COMMISSION
FOR THE NAVIGATION OF THE RHINE

Market Insight

INLAND NAVIGATION IN EUROPE

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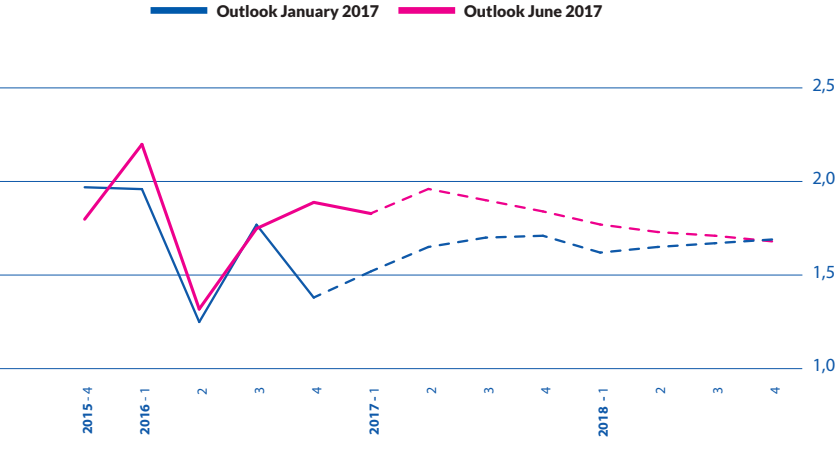
01

ECONOMIC CONTEXT

ECONOMIC CONTEXT IN EUROPE

QUARTERLY REAL GDP GROWTH RATE AND OUTLOOK FOR THE EUROZONE (%)

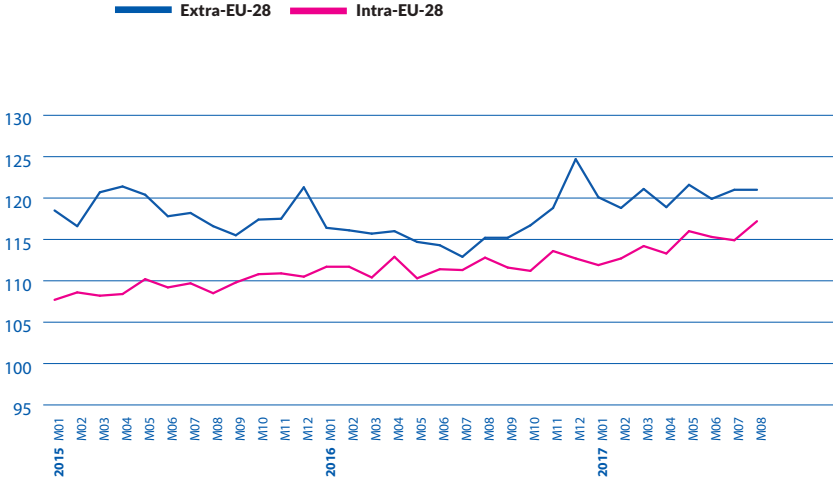
Source: OECD – Economic outlook January 2017 and June 2017



- The pace of economic growth in Europe surpassed expectations at the beginning of this year, propelled by resilient private consumption, a synchronized global upswing, and low interest rates.
- In Germany, the largest European economy, year-on-year growth in 2017 is expected to be 2.3 %, compared to 1.9 % in the Euro area as a whole. For 2018, the projected rate is 1.9 % in Germany and 1.7 % in the Euro area.
- Growth in Germany is currently driven by exports and investments, and by rising private consumption. In the manufacturing sector, new orders and output expectations improved.

EXPORTS FROM EUROPEAN UNION (EU) **COUNTRIES TO COUNTRIES OUTSIDE** (EXTRA-EU-28) **AND INSIDE** (INTRA-EU-28) **THE EU** (INDEX 2010 = 100)

Source: Eurostat

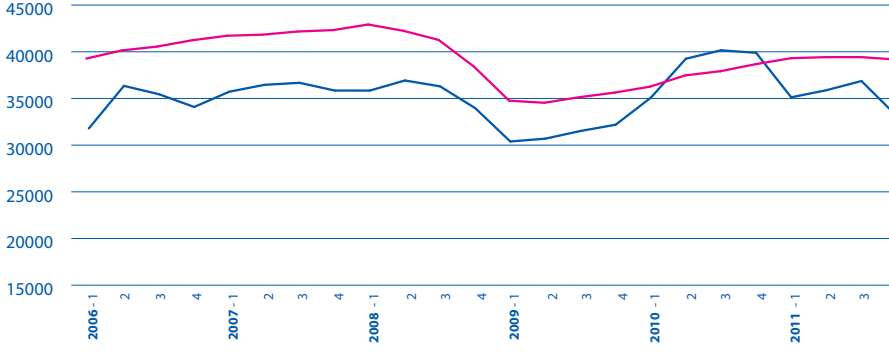


- Exports of EU countries to countries outside the EU are stimulated by a synchronized global upswing, related to the economy of BRIC countries (China, Russia, Brazil, India).
- The appreciation of the Euro against the US-Dollar since spring 2017 may have dampened this growth a little, but could not change its overall direction.[1]
- Intra-EU-trade is continuing its increasing path, and has accelerated since the beginning of the year. Similarly, since January 2017, imports from countries outside the EU to the EU have steadily increased and Q2 2017 imports increased by 1% compared to Q2 2016.

[1] *According to forecasts of the EU Commission (European Economic Forecast – Autumn 2017, published in November 2017), the Euro's nominal effective exchange rate is foreseen to appreciate by about 6 % over 2017 and 2018. This could dampen the export growth but is not supposed to change it fundamentally.*

INDUSTRIAL ACTIVITY AND INLAND NAVIGATION

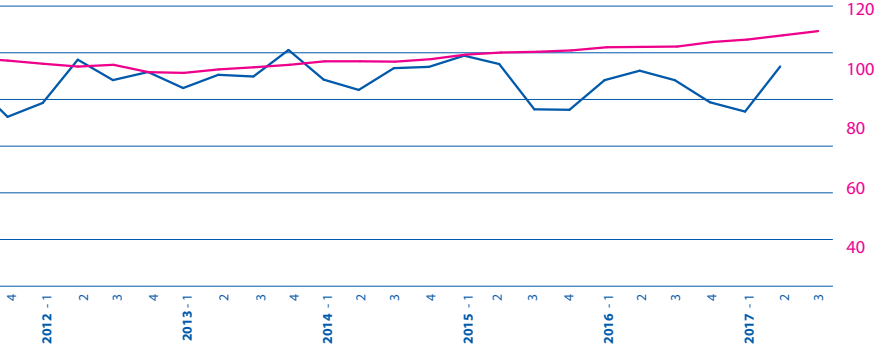
INDEX OF INDUSTRIAL PRODUCTION IN THE EU-28 AND GOODS TRANSPORT IN THE EU



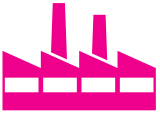
- In parallel to exports, industrial production growth has accelerated since the beginning of 2017. The year-on-year growth rate was 2 % in Q1 2017, 3 % in Q2 2017 and already 4 % in Q3 2017.
- IWT transport performance in the EU reached 38.5 billion TKM in Q2 2017, compared to 38.0 billion tkm in Q2 2016. The year-on-year growth rate was 1.2 %, and therefore around half as high as growth in industrial production.
- Despite the recovery of IWT traffic in Q2 2017, a gap in growth dynamics compared to the industrial production still remains.

Source: Eurostat

Industrial activity (Index 100 in 2010)
Quarterly IWT transport performance in the EU (Million TKM)



INCREASE OF INDUSTRIAL PRODUCTION IN EU BY



3 %

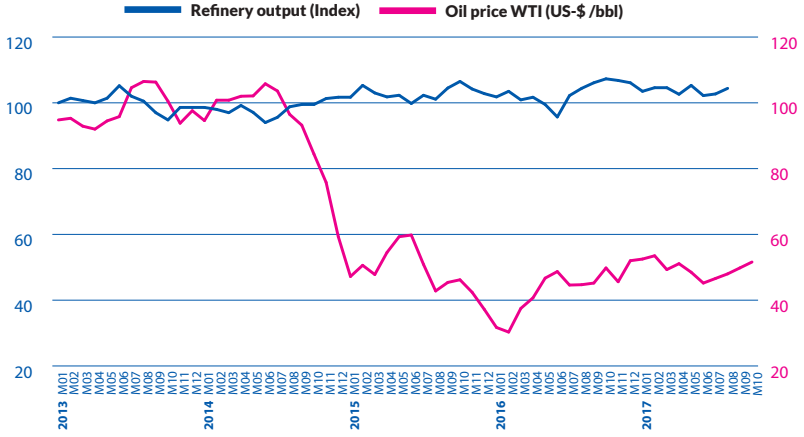
IN Q2 2017 VS Q2 2016

ECONOMIC SITUATION OF INLAND NAVIGATION-RELATED SECTORS

Mineral oil products segment

REFINERY OUTPUT IN THE EU AND CRUDE OIL PRICE

Source: Eurostat (Refinery output) and Federal Reserve Bank of St. Louis (Oil price)



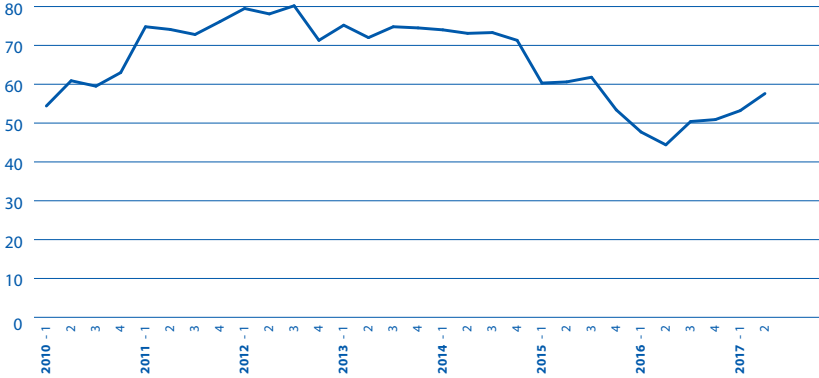
- Oil prices were decreasing in the 1st half year, but this trend was reverted by a strengthening global oil demand and production disruptions due to hurricanes in the USA.
- Supply will be affected by two main points: 1. The OPEC and Russia decided to extend their production cuts until March 2018. 2. The US shale oil production keeps increasing.
- Counterbalancing these two effects, and taking into account a modestly rising oil demand, forecasts for oil prices in 2018 and 2019 point to a level of 55.7 US-$ in 2018 (average) and a similar level in 2019. [2]

[2] *European Economic Forecast – Autumn 2017, published in November 2017*

- Fuel prices in inland shipping continued in an upward movement in Q2 2017, and were on average 30 % higher in Q2 2017 than in Q2 2016. For the 2nd half year and for 2018, a sideways movement is probable, based on oil price forecasts for this period.

DEVELOPMENT OF FUEL PRICES IN THE IWT SECTOR (€/100 L)

Source: CBRB



Steel industry segment

- The German steel production increased by 1.7 % in the 1st half year of 2017, and by 2.7 % in the first nine months of 2017, compared to the same period in 2016.

- At the Upper Danube, there was an increase in Austria by 8.7 % in the 1st half of 2017 and by 10.1 % in the first nine months of 2017. [3]

- In the Middle Danube, the steel production increased strongly both in Hungary and in Serbia, although on a much lower basis than in Austria and Germany. For Hungary there was a plus of 15 % for the 1st half year and of 56 % for the first nine months. The result in Serbia was +47 % in the 1st half year and +34 % in the first nine months.

- In the Lower Danube, steel production in Bulgaria grew by 30 % both in the 1st half year and also during the first nine months of 2017.

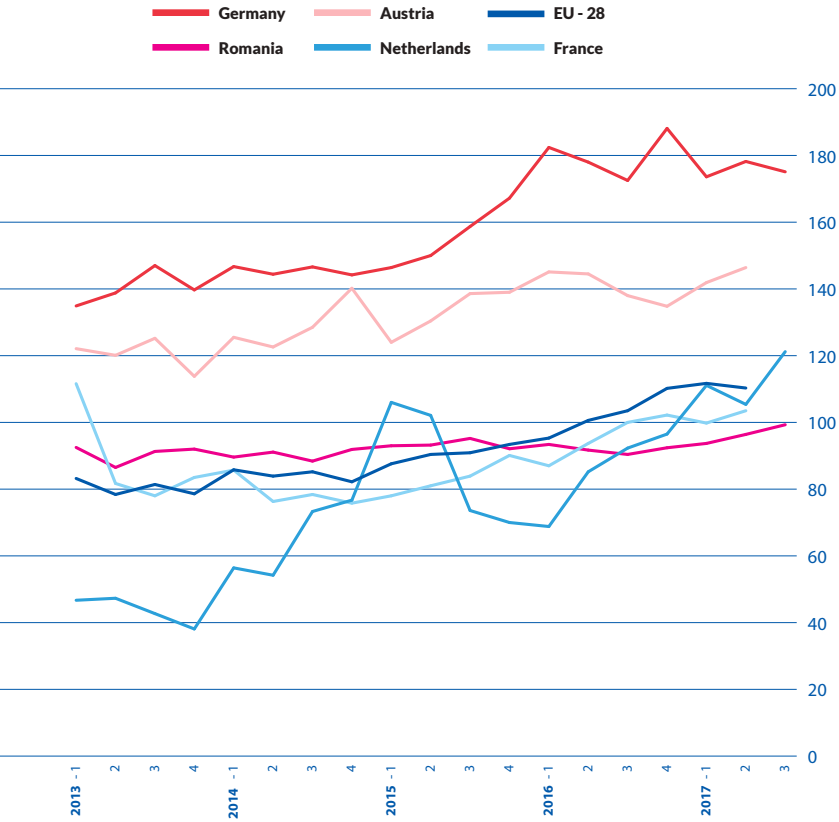
[3] *Source of all figures on steel production: World Steel Association*

- Altogether, the evolution of steel production in 2017 presented a good basis for an uptake of transport demand on European inland waterways. This was also confirmed by transport figures for many countries (see chapter 2)

Construction sector segment

EVOLUTION OF BUILDING PERMITS FOR RESIDENTIAL HOMES IN THE EU (INDEX 2010=100)

Source: Eurostat



- The transport of sand, gravel and other building materials on inland waterways is promoted by rising and accelerating construction investments in 2017 and 2018. The increase is especially strong in the Netherlands.

- The investment climate in the housing sector is currently very positive, both on the demand side (rising household income, low mortgage rates) and on the supply side (rising price level attracting more investment).

Agricultural products segment

- The grain harvest in France in 2017 is estimated to surpass the 2016 season by 26 %. This will lead to rising transport volumes in the 2nd half of the year.

- According to these updated estimations [4] for France, the harvest of soft wheat is 36 % higher in 2017 than the previous year. For hard wheat an increase of 24 % is foreseen, and for barley an increase of 17 %.

- For Hungary, an important agricultural producing country in the Danube region, estimated harvest results for 2017 are lower than those of the previous year (-16 %). [5]

+26% **EXPECTED FRENCH GRAIN HARVEST INCREASE IN 2017 VS 2016**

[4] *Source: French ministry for agriculture*
[5] *Source: EU 28 - 2017 Production Forecast - EU Cereals Balance sheet 2016/17 and forecast 2017/18*

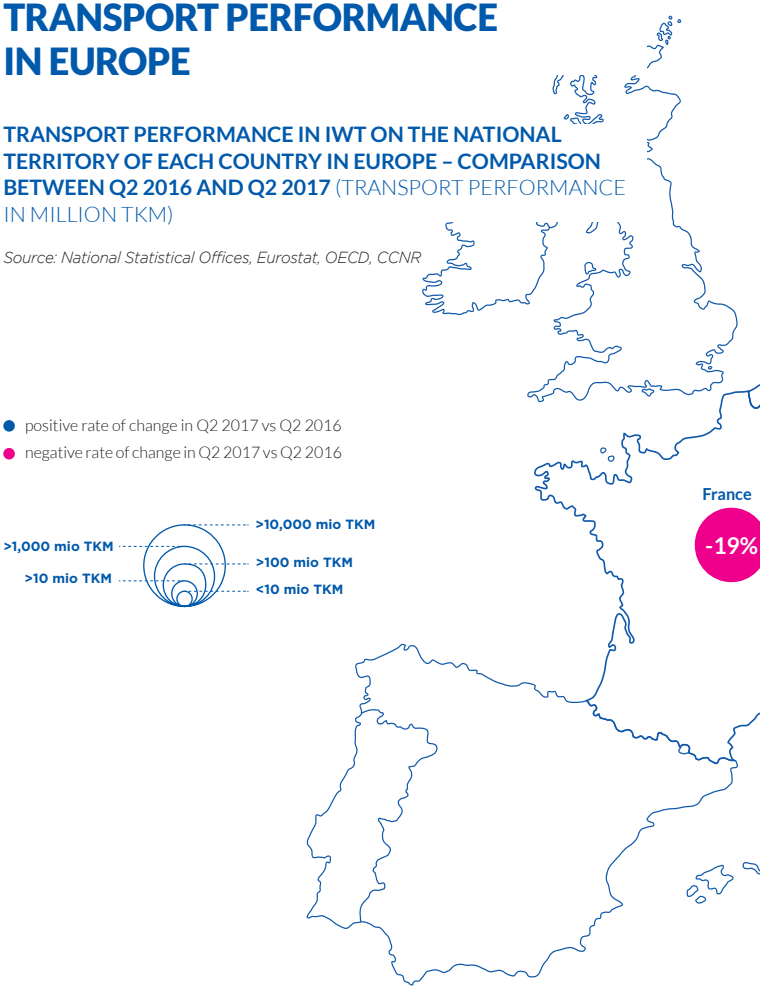
02

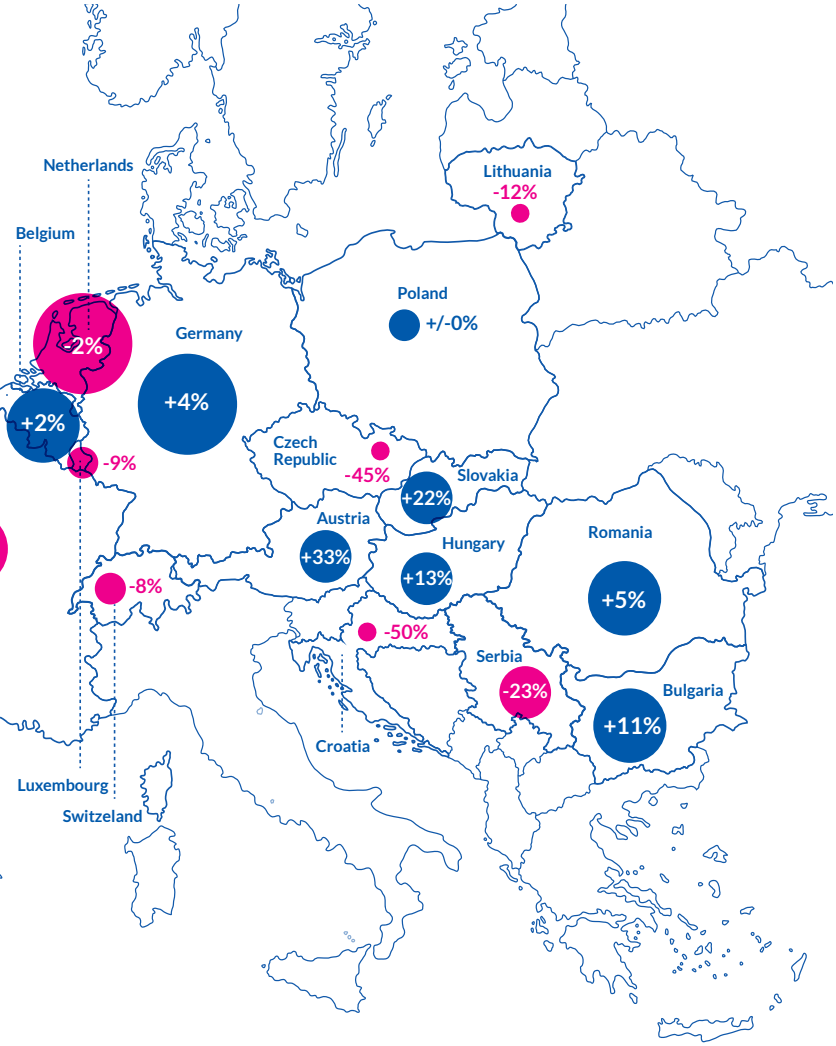
FREIGHT TRAFFIC ON INLAND WATERWAYS & IN PORTS

TRANSPORT PERFORMANCE IN EUROPE

TRANSPORT PERFORMANCE IN IWT ON THE NATIONAL TERRITORY OF EACH COUNTRY IN EUROPE – COMPARISON BETWEEN Q2 2016 AND Q2 2017 (TRANSPORT PERFORMANCE IN MILLION TKM)

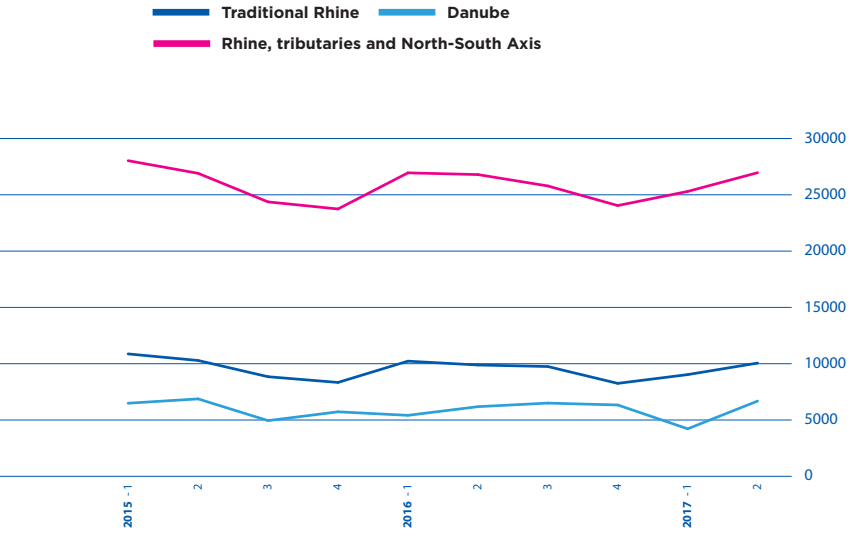
Source: National Statistical Offices, Eurostat, OECD, CCNR




Netherlands
Belgium
-2%
+2%
-9%
Germany
+4%
Lithuania
-12%
Poland
+/-0%
Czech Republic
-45%
Slovakia
+22%
Austria
+33%
Hungary
+13%
Romania
+5%
-8%
-50%
Serbia
-23%
Bulgaria
+11%
Croatia
Luxembourg
Switzeland

INLAND WATERWAY TRANSPORT PERFORMANCE EVOLUTION ON RHINE AND DANUBE (TRANSPORT PERFORMANCE IN MILLION TKM)

Source: Destatis, National Statistical Offices



+11%

RECOVERY OF TRADITIONAL RHINE FREIGHT TRANSPORT PERFORMANCE IN Q2 2017 VS Q1 2017

- On the traditional Rhine, transport performance increased by 11 % from Q1 2017 to Q2 2017. This is mainly due to a recovery from the difficult conditions in the 1st quarter 2017 (low water levels on the Rhine). Compared to 2016, transport performance in Q2 2017 increased by 2%. But because of Q1 2017 transport performance decrease, the total result in the 1st half year 2017 was nevertheless 5 % lower than in the 1st half year 2016.

- The tributaries of the traditional Rhine (Main, Mosel, Saar, Neckar) account for 12 % of the transport performance in the Rhine basin in Germany (Main: 5 %, Mosel: 5 %, Saar: 1 %, Neckar: 1 %). In Q2 2017, traffic on the Mosel was 7 % higher than the previous year. On the Saar, the increase was even 37 %, highly supported by steel industry activity and iron ore traffic increase. The Main registered an increase of 45 %, while navigation on the Neckar stagnated.

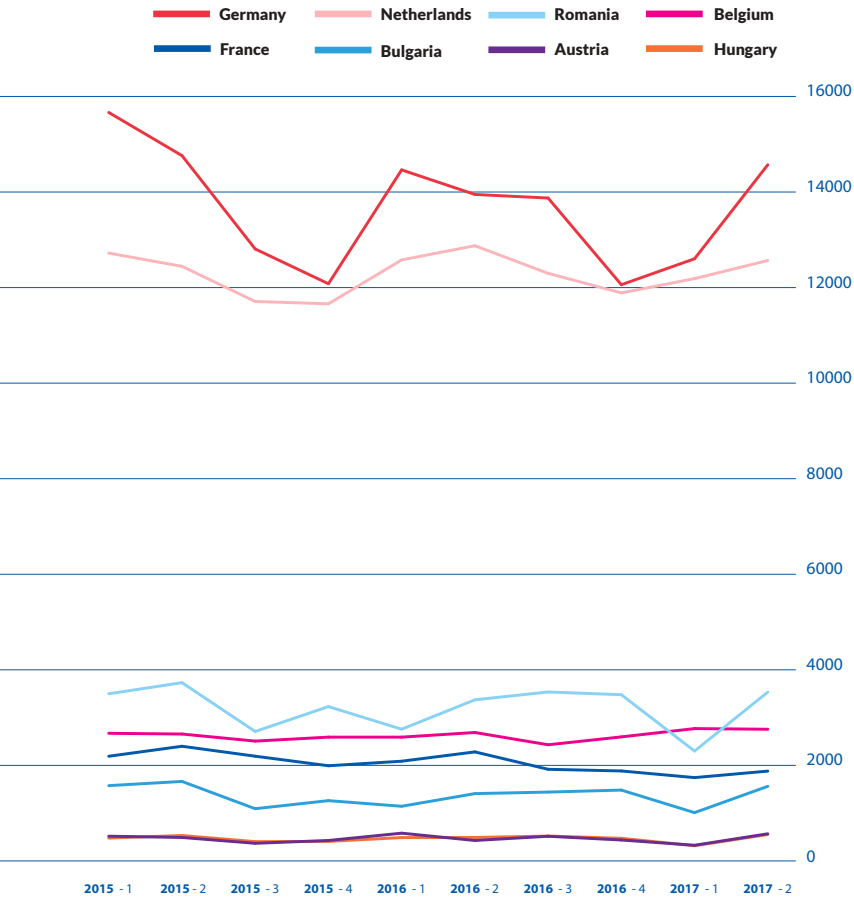
- The sum of transport performance on the traditional Rhine, the Rhine tributaries and the North-South axis again reached the level of Q2 2016. Growth was somewhat dampened by a weakening of transport evolution in the Netherlands (see transport performance evolution by country on next pages).

- Danube navigation showed a remarkable recovery in Q2 2017, having suffered heavily from low water levels and ice in winter 2017.

TRANSPORT PERFORMANCE IN MAIN EUROPEAN IWT COUNTRIES

INLAND SHIPPING TRANSPORT PERFORMANCE IN MAIN EUROPEAN IWT COUNTRIES (QUARTERLY DATA – MILLION TKM)

Source: Eurostat, National Statistical Offices



- In Germany, the rising water levels on the Rhine as well as an economic upswing (see chapter 1) enabled a recovery of dry mass cargo transports. The level in Q2 2017 was 15.6 % higher than in Q1 2017 and 5 % higher than in Q2 2016. A segment with a particular increase was iron ores.

- In the Netherlands, transport performance increased against Q1 2017, but not against Q2 2016. According to CBS, the reason was a long interruption of traffic due to an accident on the river Maas.

- In Romania, transport performance increased by 53 % from Q1 2017 to Q2 2017. Bulgaria showed growth rates that were a little lower than in Austria and Hungary. This is explained by the fact that ice and low water periods had not been as harsh in the southern Danube region, and so the rebound effect was not as strong.

- In Austria, transport performance in Q2 2017 increased by 73 % compared to Q1 2017, and by 33 % compared to Q2 2016. The increase of 73 % is due to better waterway conditions, while the increase of 33 % results from better economic conditions in 2017 compared to 2016 (in particular an increase in steel production in the Danube area).

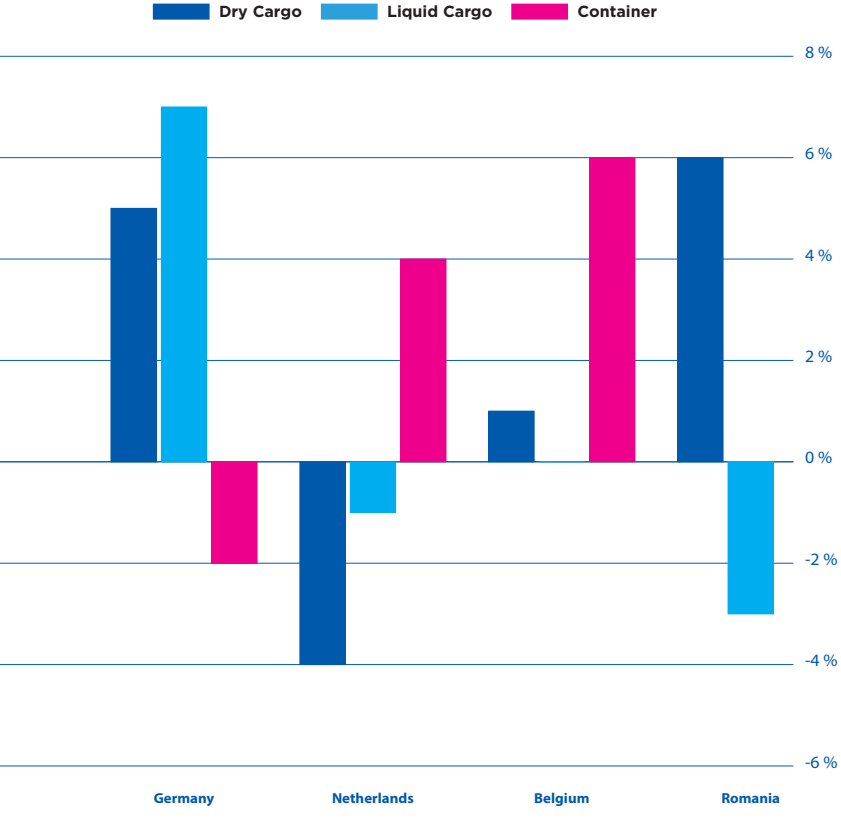
- In Hungary, the growth rates are very similar to Austria, and transport evolution seems well synchronized between these two neighbouring countries.

DRY BULK, LIQUID BULK AND CONTAINER TRANSPORT

RATE OF CHANGE IN INLAND SHIPPING TRANSPORT PERFORMANCE IN FOUR MAJOR IWT COUNTRIES

(Q2 2017 VS Q2 2016 - %)

Source: National Statistical Offices



- In Germany, certain mass cargo segments showed an enormous growth rate. Iron ores had an increase of 30 % compared to Q2 2016 and an increase of 25 % compared to Q1 2017. Within the liquid cargo segment, mineral oil products grew by 12 %, while chemicals stagnated. Container transport performance (in TKM) was 2 % lower than in Q2 2016, while the TEU volumes were 2 % higher. This difference could be explained by the low water period at the beginning of the year, which had a more negative (and ongoing) impact on the transport of loaded containers than on the transport of empty containers.

- In the Netherlands, according to information from the National Statistical Office CBS, transport evolution was dampened by an accident on the river Maas. The accident caused the damage of a barrier and an interruption in navigation for a long time.

- In Belgium, container transport continued its upward trend with +6 %. Inland navigation in Belgium is promoted by a strong network of important seaports and inland ports (especially Antwerp, Gent, Liège, Brussels, Namur), and the creation of new regular container lines between them. Traffic growth during the second quarter is also partly explained by the accident that occurred in the Netherlands.

- In Romania, dry cargo segments related to agriculture and the steel industry account for 81 % of total transport performance – iron ores (36 %), agricultural products (33 %), coal (7 %), metals (4 %). Liquid goods traffic has a very small share of only 4 %, and container transport only 0.02 %.

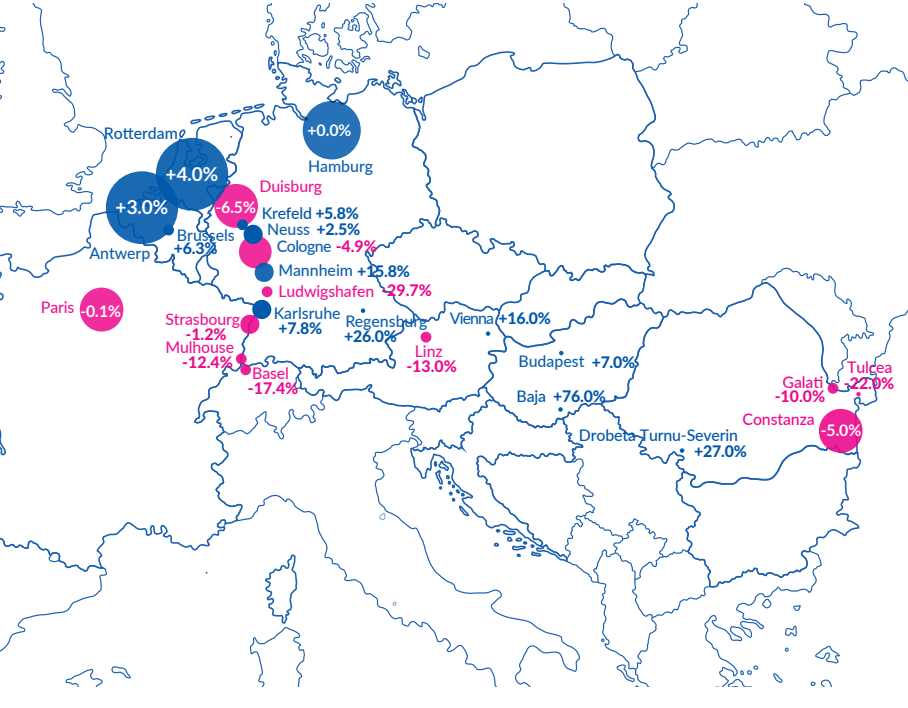
- Iron ore transport in Romania increased by 17 % compared to Q2 2016 and by 80 % compared to Q1 2017. Agricultural products showed an increase of 14 % compared to Q2 2016 and an increase of 45 % compared to Q1 2017. The reason for an overall growth rate of only 6 % is due to the fact that there was a negative evolution for both coal and metals.

WATERSIDE TRANSPORT IN EUROPEAN PORTS

TRANSSHIPMENT VOLUME IN (Q1+Q2) 2017, TRANSSHIPMENT VOLUME IN (Q1+Q2) 2016 AND RATE OF CHANGE BETWEEN BOTH

Source: Destatis, ports mentioned

- positive rate of change in traffic between (Q1+Q2) 2016 and (Q1+Q2) 2017
- negative rate of change in traffic between (Q1+Q2) 2016 and (Q1+Q2) 2017

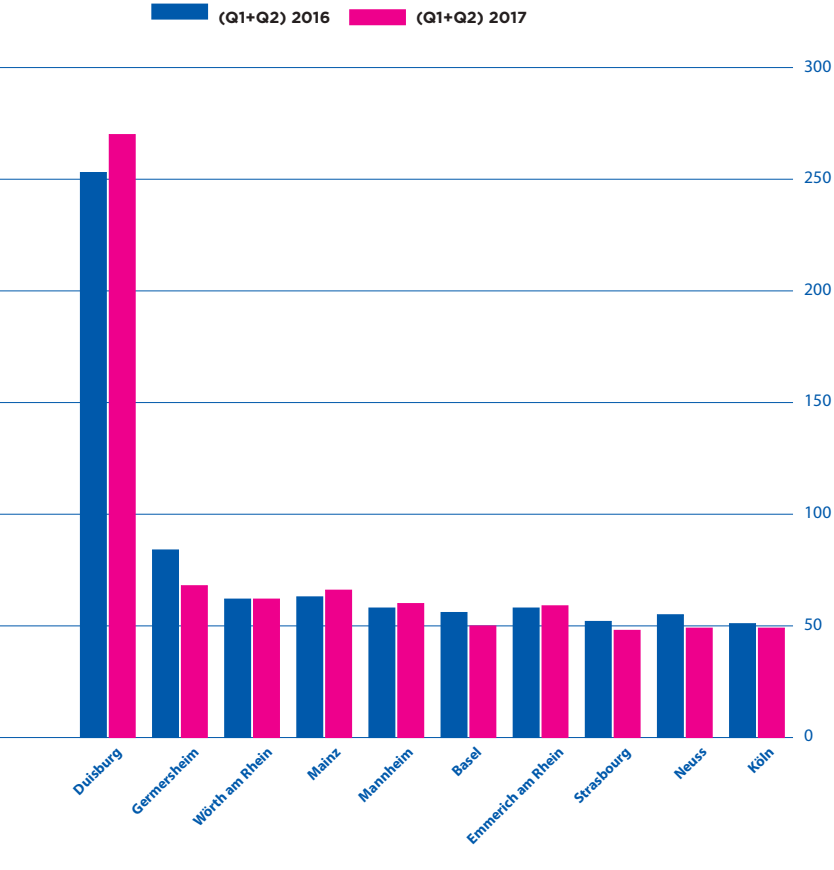


- In Rotterdam, dry bulk traffic increased by 5 %, which is about the same rate as that observed for dry bulk in Germany. The port is an essential provider of commodities for the German steel industry.
- In Antwerp, dry bulk traffic increased by 1 %, but the growth was especially strong for iron ores (+27 %). A parallel with the evolution in the German hinterland in Q2 2017 is obvious.
- In Hamburg, overall maritime traffic remained constant. Dry bulk traffic was 1 % higher than the previous year, and a special driver here was also iron ore (+4 %).
- The 10 largest Rhine ports registered a waterside traffic of 57 million tonnes in the 1st half-year 2017, compared to 60 million tonnes in the same period of 2016. This meant a decrease of 5 %, which is the same rate of change as observed for the transport performance on the whole traditional Rhine.
- In the Port of Paris, sands, stones and building materials (which represent 3/4 of waterside traffic) had an increase of 8 %. The overall result was nevertheless stagnation, as the traffic of agricultural products and foodstuffs was still very negatively affected by the bad harvest results in 2016. It is expected that this negative effect will run out in the 2nd half of 2017.
- In the port of Constanza, 60 % of maritime traffic concern dry bulk, which had an increase of 3.4 % in Q2 2017. Another 15 % of the maritime traffic is liquid bulk, 16 % are containers and the rest are other cargo types. Within dry bulk, agricultural products have the highest share.
- Almost all of the upper and middle Danube ports (Regensburg, Linz, Vienna, Budapest, Baja) presented here showed a strong increase in their half-year traffic compared to the previous year. The only exception is Linz, an important centre of the steel industry.
- In Q2 2017, traffic in Linz (which contains above all iron ore, metals and coal) increased by 18 % compared to Q2 2016. The reason why the rate of change for (Q1+Q2) 2017 is nevertheless negative can be seen in the enormous reduction in Q1 2017 (-38 %), which could not be fully compensated in Q2 2017.

CONTAINER TRANSPORT IN EUROPEAN PORTS

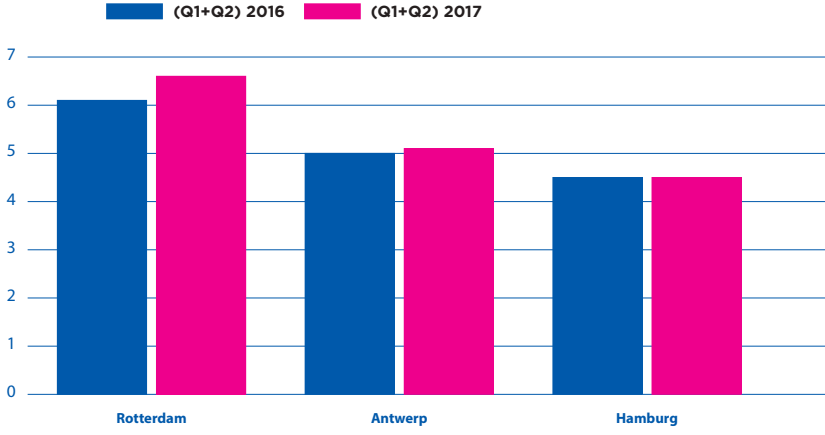
IWT CONTAINER TRAFFIC IN EUROPEAN INLAND PORTS IN (Q1+Q2) 2016 AND (Q1+Q2) 2017 (1000 TEU)

Source: Destatis, Port autonome de Strasbourg, Swiss Rhine ports



MARITIME CONTAINER TRAFFIC IN EUROPEAN SEAPORTS IN (Q1+Q2) 2016 AND (Q1+Q2) 2017 (IN MIO TEU)

Source: Port of Rotterdam, Port of Antwerp, Port of Hamburg



- The port of Rotterdam registered a 9 % increase in total maritime container traffic in the first half-year 2017, thereby increasing its market share for container traffic within the Hamburg-Le Havre range from 29 % to 31 %.
- The reasons for this strong growth are related to the high productivity of the new infrastructure (Maasvlakte 2 terminals), which attracts more maritime containers. Within total maritime container traffic, 1/3 is feeder traffic (intra-European maritime container traffic between Rotterdam and smaller European seaports).This type of transport even reached a growth rate of 22.6 %, boosted by a strong business cycle in Europe.

- Container handling of inland vessels suffers since quite a long time under congestion problems in seaports, and this was especially the case in the 1st half of the year. The reasons were changes in the schedules of maritime shipping companies, leading to a high concentration of maritime transshipment activities and therefore an insufficient capacity for handling inland container barges. [6] Possible solutions for these congestion problems are subject of investigation.
- The waterside container traffic in the largest European inland port, Duisburg, continued its upward trend in the 1st half-year 2017, despite somewhat difficult conditions (see efficiency issues in seaports mentioned above). Waterside traffic grew by 6.5 %.
- For the 10 largest Rhine ports in container traffic, the sum of waterside container traffic amounted to 796 thousand TEU, which was 13 % below the 1st half-year 2016 result. The main reason being the cargo loss of Q1 2017 due to low water levels.
- In the ports of Paris, container traffic by IWT reached 77 446 TEU, a plus of 6.3 %. Container traffic by rail lost 0.6 % while container traffic by road increased by 4.6 %. Overall, the fastest growing segment in Paris was again the urban logistics segment.

+6.5%

WATERSIDE CONTAINER TRAFFIC INCREASE IN 1ST SEMESTER 2017 VS 1ST SEMESTER 2016 IN DUISBURG

[6] *Source: Information based on the press note of the European Barge Union (EBU) from July, 10th 2017 [Aanhoudende Congestie bij Containerterminals en daarmee samenhangende Kosten voor de Binnenvaart]*

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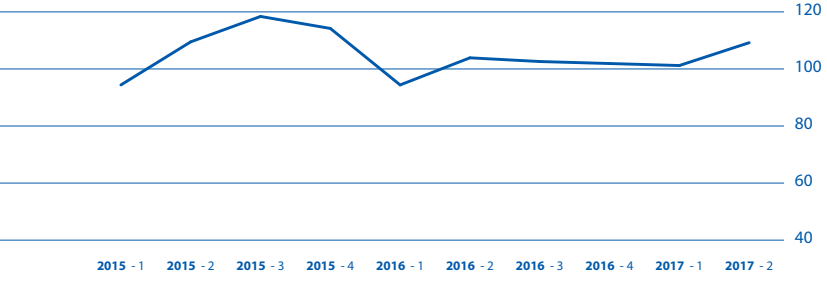
03

OPERATING CONDITIONS

TURNOVER DEVELOPMENT IN EUROPE

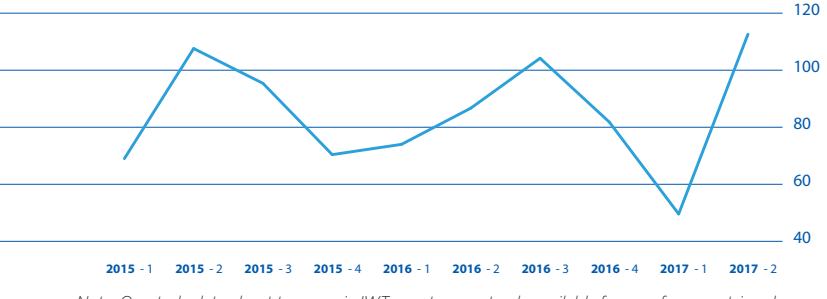
TURNOVER DEVELOPMENT IN THE NETHERLANDS (2010=100)
RHINE COUNTRY WITH MAINLY GOODS TRANSPORT ACTIVITY

Source: CBS



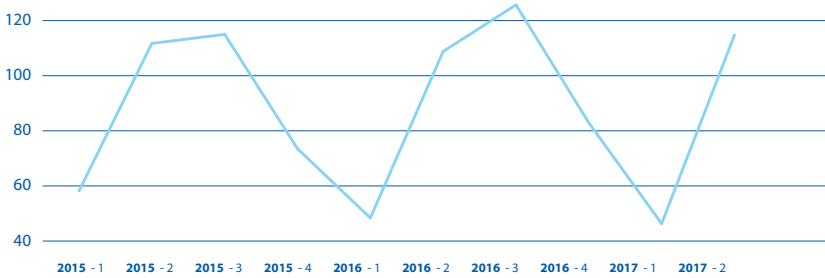
TURNOVER DEVELOPMENT IN HUNGARY (2010=100)
DANUBE COUNTRY WITH MAINLY GOODS TRANSPORT ACTIVITY

Source: Eurostat



Note: Quarterly data about turnover in IWT are at present only available for very few countries, due to statistical limitations. EUROSTAT presents data for the NACE sector H50 (Water transport) which covers maritime and IWT transport together. Based on this dataset, it is possible to identify turnover in IWT only for countries with practically no activity in maritime shipping (Austria, Hungary). For the Netherlands, turnover data on a quarterly basis are provided by the national statistical office (CBS).
Note 2: Turnover in a country stands for turnover of companies registered in this country.

TURNOVER DEVELOPMENT IN AUSTRIA (2010=100)
DANUBE COUNTRY WITH MAINLY PASSENGER TRANSPORT ACTIVITY
Source: Statistik Austria



- Inland shipping Dutch companies' turnover was 5 % higher in Q2 2017 than in Q2 2016. This increase was not as strong as the increase in transport prices (see page on freight rates), as the relatively weak evolution of transport performance in Q2 2017 dampened turnover evolution. The turnover evolution for other modes of transport in the Netherlands in Q2 2017 was: Maritime shipping (+3.3 %), Road transport (+6 %), Rail transport (+0.9 %), total transport sector (+ 4.7 %).

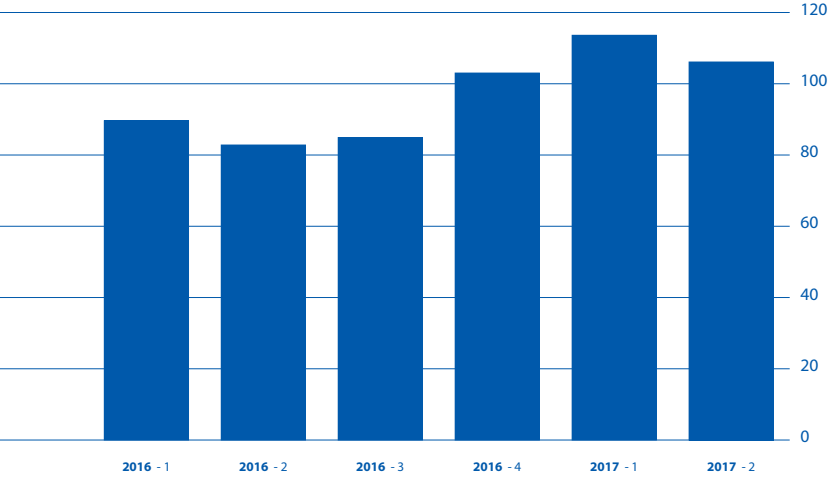
- Hungary is a middle Danube country where goods transport has a high share in IWT turnover (almost 3/4). If we compare the evolution of transport demand with the evolution of turnover, we see a very strong correlation for Hungary. Therefore, the rebound of turnover in Q2 2017 (+30 % compared to Q2 2016) is a parallel to the strong increase of transport demand in this quarter (+13 %), although stronger in magnitude.

- Austria is an upper Danube country where goods transport has a quite low share in turnover (around 1/3). This explains the strong seasonal variations, a pattern typical for passenger shipping. Turnover in Q2 2017 was 5.4 % higher than one year before and 2.7 % higher than in Q2 2015. One explanation is found in the increasing transport demand. Another important role is played by the upward trend in passenger shipping, both in terms of the number of companies and in terms of their share in turnover.

FREIGHT RATES

DEVELOPMENT OF FREIGHT RATES* IN THE NETHERLANDS
(2015 AVERAGE=100)

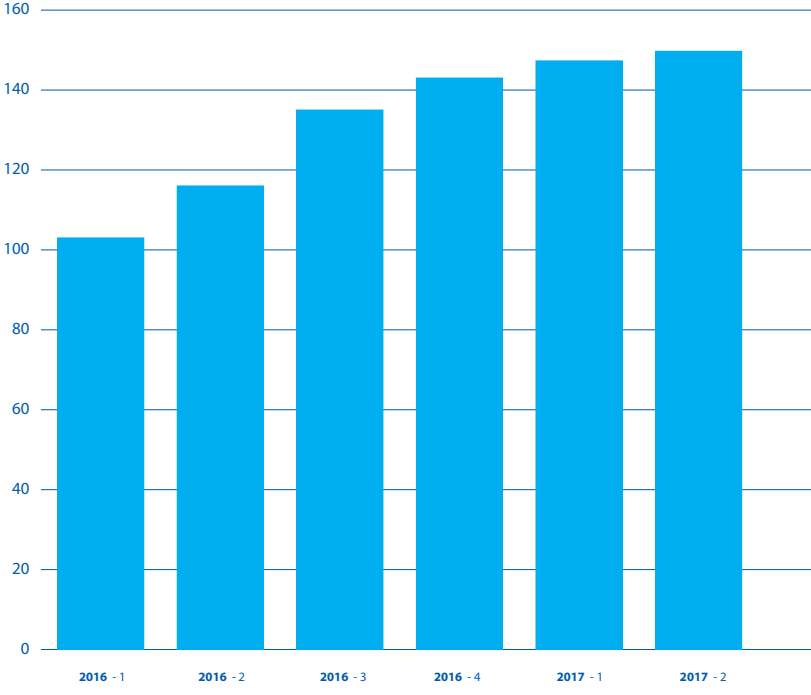
Source: CBS - Centraal Bureau voor de Statistiek
**Note: Average freight rate evolution for transports of dry cargo, liquid cargo and containers in the Netherlands*



- The average transport prices in goods transport in the Netherlands in Q2 2017 were 28 % higher than in Q2 2016.
- The differences can be explained by the evolution of the water levels during this period. Q2 2016 had seen water levels above average, while Q1 2017 had exceptionally low levels, and in Q2 2017, water levels were around average.

DEVELOPMENT OF FREIGHT RATES* IN THE DANUBE REGION
(JANUARY 2015=100)

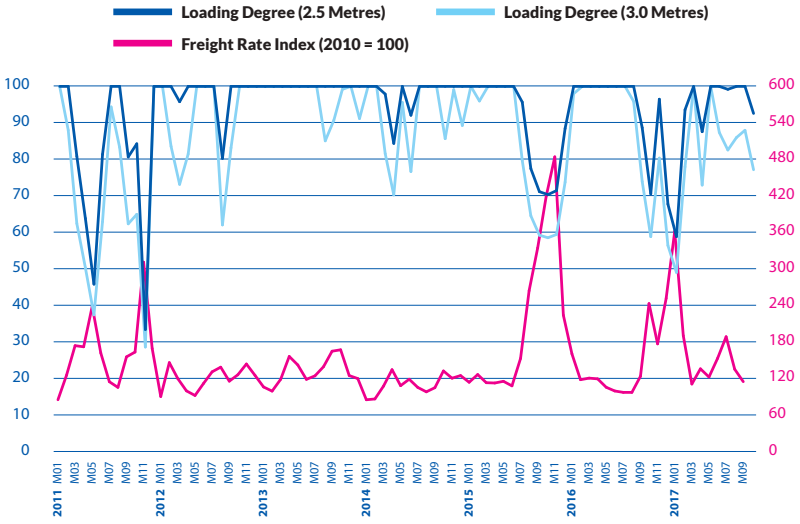
Source: Danube Commission
**Note: Freight rates based on transports of grain and chemical products from Middle Danube ports*



- On the Danube, freight rates in Q2 2017 were 19 % higher than in Q2 2016. The positive transport demand evolution in Danube countries was one main reason for this.
- Freight rates in tanker shipping on the Rhine were, in Q2 2017, on average 1.3 % lower than in Q1 2017, but 66 % higher than in Q2 2016; the reason was the low water period in January 2017, which had greatly reduced loading degrees of vessels (see figure), and which had not occurred in the previous year.

MAXIMUM LOADING DEGREES AT KAUB/MIDDLE RHINE FOR VESSELS WITH A DRAUGHT OF 2.5 AND 3 METRES, COMPARED WITH FREIGHT RATES INDEX*

Source: CCNR and PJK International.
** Freight rates in tanker shipping on the Rhine*



59%

MAXIMUM LOADING DEGREE AT KAUB FOR 2.5 METRE DRAUGHT VESSELS IN JANUARY 2017 - LOWEST MAXIMUM LOADING DEGREE SINCE NOVEMBER 2011

L 85.00 B 9.50
T 1528 D 2.85
EU nr. 2323448

04

OUTLOOK

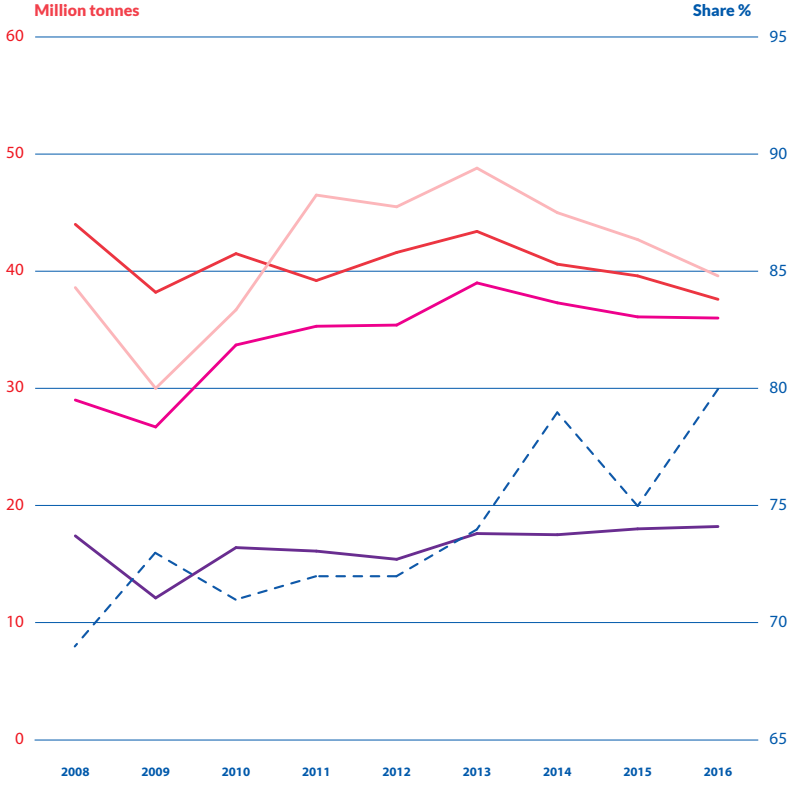
FOCUS ON COAL TRANSPORT

- In this segment, inland shipping is used for delivering steam coal to power plants, and coaking coal to steel plants. 82 % of all coal transport performance in the EU takes place in Germany. Rotterdam is the main port and the Rhine is the main artery for providing the steel industry and the energy sector with coal in Germany. A smaller part of German coal imports crosses the German border via German seaports, in particular Hamburg.
- In 2016, 29 million tonnes of coal crossed the German border on inland vessels, mainly on the Rhine. This import traffic represented 81 % of total coal transport by IWT in Germany (36 million tonnes).
- Due to the heavy traffic of coal on the Rhine, Rotterdam and Amsterdam are the two main coal ports in the Hamburg-Le Havre range, with a total coal transshipment volume of 48.4 million tonnes (= share of 2/3 in the Hamburg-Le Havre range). [7]
- Coal transport on inland waterways is statistically closely linked with coal imports, but the underlying drivers are the energy sector and steel production: 2/3 of all coal is used for generating electricity (and on a minor scale heat), and 1/3 for producing iron and steel.
- The following figure reveals that coal transport by IWT and by rail is clearly linked with coal consumption in the energy sector, and to a lesser extent with steel production. The rising share of imported coal is in principle beneficial to IWT and rail transport, as it creates additional long distance transport, but this effect is offset by the energy transition towards renewables.

[7] *Source: Port of Rotterdam – Brochure Facts & Key Figures*

COAL CONSUMPTION AND COAL TRANSPORT BY INLAND VESSELS AND BY RAIL IN GERMANY (MILLION TONNES)

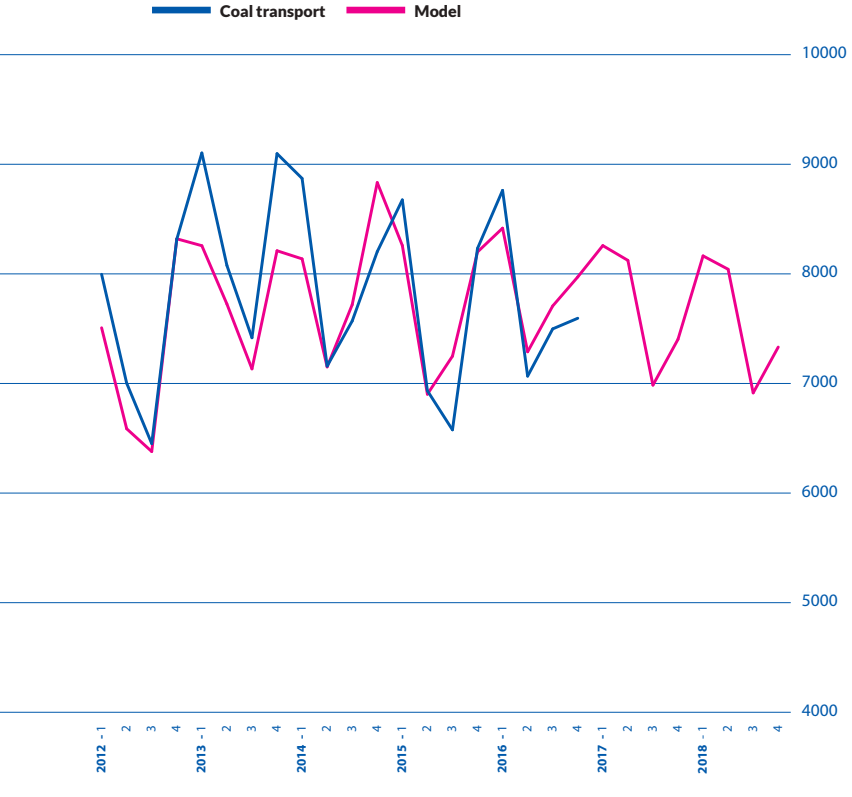
Source: CCNR based on Destatis, German Working Group on Energy Balances and Oxford Economics



FORECAST MODEL AND RESULTS

VOLUMES OF COAL TRANSPORTED ON THE RHINE AND FORECAST MODEL (IN 1,000 TONNES)

Source: CCNR



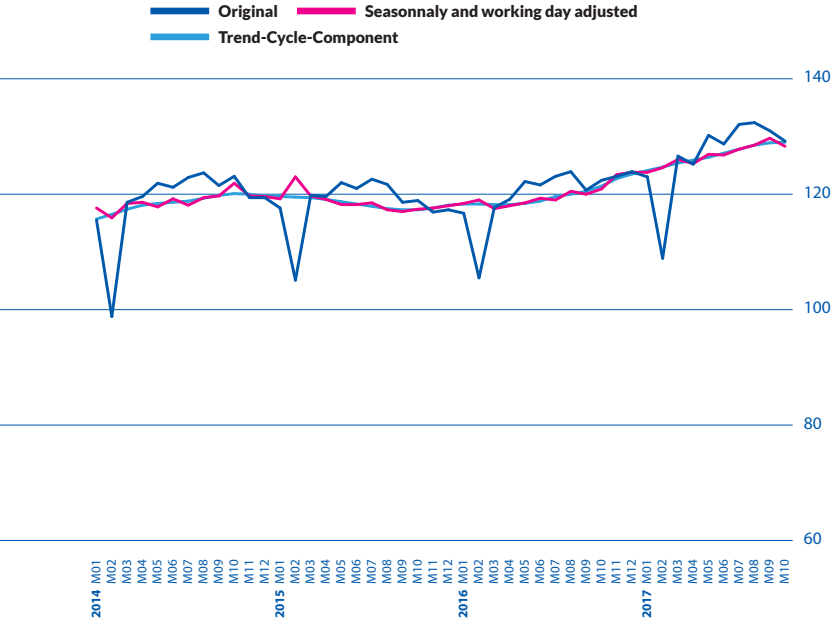
- Transport of coal on the Rhine is positively correlated with coal imports and with energy consumption. Electricity generation now plays a larger role than the heating market, as most of the coal in Germany is used by power plants for generating base load power.
- The transport of coal on the Rhine is expected to decrease in 2017 and 2018, due to the ongoing trend of energy transition towards renewables in Germany. Coal's share in primary energy consumption dropped from 13.3 % in 2014, to 13.0 % in 2015, and to 12.3 % in 2016. [8]
- According to data provided by the German Working Group on Energy Balances, coal primary energy consumption continued to decrease also in the 1st half year of 2017, by 6.7 % compared to the 1st half year of 2016.
- The forecast takes into account a 7 % decrease of coal imports in Germany, between the average quarterly coal import level in 2016 and the end of 2018 (Q4 2018).
- According to this forecast model, coal transport on the Rhine is expected to decrease from 31 million tonnes in 2016 to 30.7 million tonnes in 2017 and 30.4 million tonnes in 2018.

[8] *Source: ARGE Energiebilanzen (German Working Group on Energy Balances)*

WORLD TRADE OUTLOOK AND TRANSPORT TRENDS

RWI/ISL CONTAINER THROUGHPUT INDEX

Source: Computations of RWI and ISL based on data from 82 ports; July 2017: flash estimate



- The RWI/ISL Container throughput index is based on data from 81 world container ports covering 60 % of worldwide container handling. This index is an early indicator for world trade and maritime container shipping.
- The index data for 2017 reveal an acceleration of container throughput in the 2nd half of the year. The index reached an all-time-high value in August 2017.

- In the following months, a slight reduction took place, but this should be understood as a cooling or counter-reaction to the unusual growth in the previous months.
- In November 2017, no trend reversal in the evolution of world trade is expected.

+5.5% **CONTAINER THROUGHPUT INDEX INCREASE BETWEEN Q1 2016 AND Q1 2017**

+6.8% **CONTAINER THROUGHPUT INDEX INCREASE BETWEEN Q2 2016 AND Q2 2017**

+7.0% **CONTAINER THROUGHPUT INDEX INCREASE BETWEEN Q3 2016 AND Q3 2017**

TRENDS IN DEMAND FOR TRANSPORT IN 2018 IN RHINE COUNTRIES

Source: CCNR analysis based on macroeconomic and sectorial data

	Main drivers	Trends in demand for transport in 2018 vs 2017
Agricultural products	Harvest results	Increase
Iron ores	Steel production	Increase
Metals	Steel production	Increase
Coal	Weather & energy policy, partly steel production	Decrease
Sand, soil & building materials	Construction activity	Increase
Containers	World trade	Increase
Mineral oil products	Oil prices & refinery output	Stable
Chemicals	Chemical production	Stable

AFTER BAD RESULTS IN 2016, BETTER HARVESTS IN 2017 WILL LEAD TO RISING TRANSPORT VOLUMES FOR AGRICULTURAL PRODUCTS IN 2018 COMPARED TO 2017

- For the steel segment, production figures for the 2nd quarter 2017 were very positive, and the further outlook for the steel industry is far more favourable than in 2016, thanks to a synchronised global upswing (see chapter 1).
- The consumption of coal is declining further. In Germany, the use of coal decreased by 6.7 % in the first half year 2017. Coal consumption in the energy sector decreased by 9 %. The underlying trend of the energy transition towards renewables, will certainly continue.
- The upward movement in the building industry is continuing, as new figures confirm, especially for the Netherlands. The transport of sands, stones and building materials will be promoted further by this development.
- The world trade indicator (RWI/ISL index) accelerated in the 2nd half of 2017, in line with industrial production. Although the latest data expressed a slight reduction, the world trade outlook for 2018 is fundamentally positive.
- Oil prices are expected to remain rather stable or increase in a limited way in 2018. Transport demand for mineral oil products is expected to remain stable in 2018, with a positive short-term trend offsetting a negative long-term trend.
- It is expected that chemical production will grow only very modestly in 2018. Therefore, the outlook for chemical transport is also stable, with the possibility of a slight increase.

GLOSSARY

BN: Billion

DANUBE COUNTRIES: Austria, Bulgaria, Croatia, Hungary, Romania, Serbia, Slovakia

EU: European Union

EUROPE: European inland navigation in this report includes two countries not belonging to European Union, Switzerland and Serbia

FREIGHT RATE: Price at which a cargo is delivered from one point to another

GDP: Gross Domestic Product

IWT: Inland Waterways Transport

LOADING DEGREE: percentage of maximum vessel loading

MIO: Million

OECD: Organisation for Economic Co-operation and Development

PP: Percentage point

20XX- 1/20XX-Q1: First Quarter

RHINE COUNTRIES: Belgium, France, Germany, Luxemburg, Netherlands, Switzerland

RWI/ISL CONTAINER THROUGHPUT INDEX: Index of worldwide container throughput in ports

TKM: Tonne-Kilometer (unit for transport performance which represents volume of goods transported multiplied by transport distance)

TRADITIONAL RHINE: Rhine from Basel to the border between Netherlands and Germany

TURNOVER: Sales volume net of sales taxes

WTI: West Texas Intermediate (grade of crude oil used as benchmark in oil pricing)

NATIONAL STATISTICS OFFICES

Acronym	Original Name	English Name	Country
Statistik	Statistik Austria	Statistics Austria	Austria
Statbel	Statistics Belgium	Statistics Belgium	Belgium
NSI	Национален статистически институт	National Statistical Institute	Bulgaria
DZS	Državni Zavodza Statistiku	Central Bureau of Statistics of Croatia	Croatia
MDCR	Ministerstvo dopravy České republiky	Ministry of Transport of the Czech Republic	Czech Republic
FTA	Liikennevirasto	Finnish Transport Agency	Finland
VNF	Voies Navigables de France	Navigable Waterways of France	France
destatis	Statistisches Bundesamt	Federal Statistical Office of Germany	Germany
KSH/ HCSO	Központi Statisztikai Hivatal	Hungarian Central Statistical Office	Hungary
MIT	Ministero delle Infrastrutture e dei Trasporti	Ministry of Transport and Infrastructure	Italy
AIPo	AgenziaInterregionale per il fiume Po	Interregional Agency of the Po River	Italy
OPS	Oficialiosios Statistikos Portalas	Statistics Lithuania (Official Statistics Portal)	Lithuania
STATEC	Institut national de la statistique et des études économiques du Grand-Duché de Luxembourg	National Institute of Statistics and Economic Studies of the Grand Duchy of Luxembourg	Luxemburg
CBS	Centraal Bureau voor de Statistiek	Central Statistical Office	Netherlands
GUS	Główny Urząd Statystyczny	Central Statistical Office	Poland
РЗС	Републички завод за статистику	Statistical Office of the Republic of Serbia	Republic of Serbia
INSSE	Institutul National de Statistica	National Institute of Statistics	Romania
Slovstat	Štatistický úrad Slovenskej republiky	Statistical Office of the Slovak Republic	Slovak Republic
Trafa	Trafikanalys	Transport Analysis	Sweden
DfT	Department for Transport	Department for Transport	United Kingdom

OTHER SOURCES

Original Name	English Name	Country
EUROSTAT	EUROSTAT	EU
European Commission	European Commission	EU
Ports mentioned in the report	Ports mentioned in the report	EU
International Monetary Fund (IMF)	International Monetary Fund (IMF)	World
OECD	OECD	World
World Steel Association	World Steel Association	World
AG Energiebilanzen	Working Group on Energy Balances	Germany
Bundesamt für Güterverkehr	German Federal Office of Goods Transport	Germany
Centraal Bureau voor de Rijn- en Binnenvaart	Central Bureau for Inland Barging	Netherlands
Federal Reserve Bank of St. Louis	Federal Reserve Bank of St. Louis	USA
Agreste	Agreste	France
Institut für Seeverkehrswirtschaft und Logistik	Institute of Shipping Economics and Logistics	Germany
PJK International	PJK International	Netherlands
Rheinisch-Westfälisches Institut für Wirtschaftsforschung	RWI - Leibniz-Institute for Economic Research	Germany
Wirtschaftsvereinigung Stahl	German Steel Industry Association	Germany
Oilprice.com	Oilprice.com	United Kingdom

METHODOLOGY

Freight traffic on inland waterways and in ports

Europe as defined in chapter 2 is taking into account all European countries providing quarterly data on inland waterway transport. All these countries are listed on the Transport Performance in Europe map (page with map in chapter 2).

When discrepancies on total transport performance are observed between Eurostat and National Statistics data, the information is notified to Eurostat and National Statistics Office data is taken into account.

When available, NST product classification is used in order to split transport performance on following transport segments: dry cargo, liquid cargo, containers.

When available, general cargo is included in dry cargo.

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This notice does not constitute a formal commitment on the part of those organisations referred to in the report.

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