



Hamburg Institute
of International
Economics

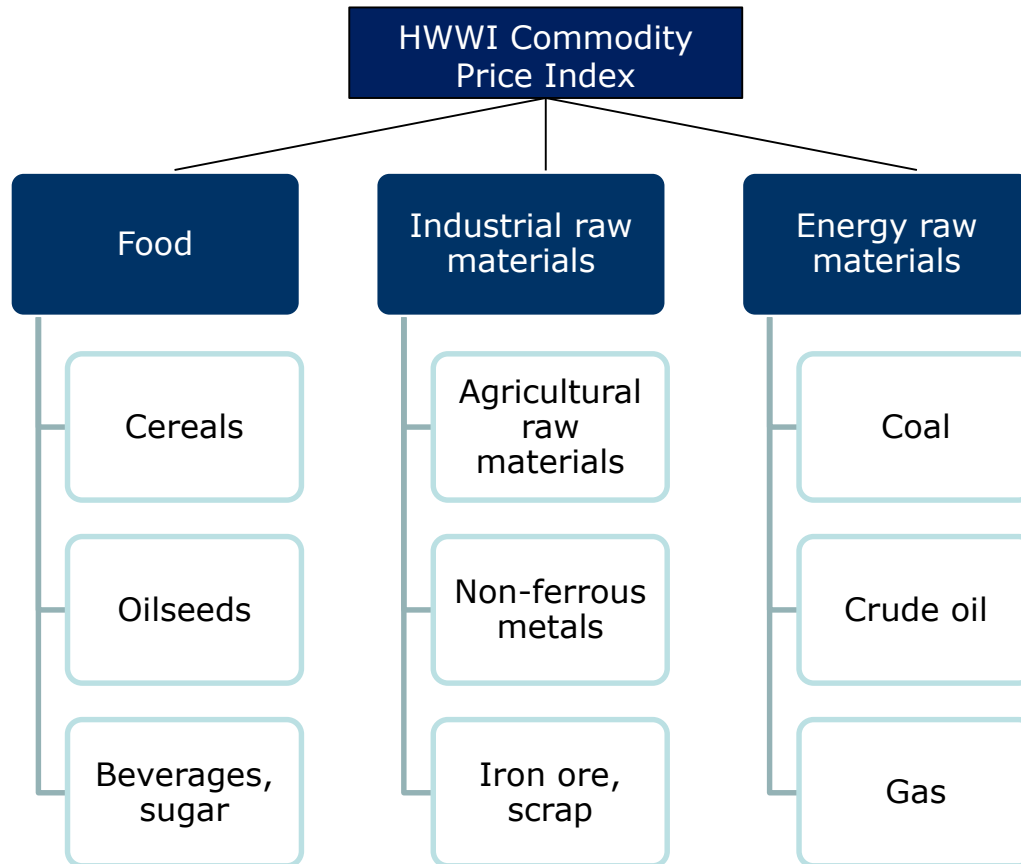


Recent Developments of the Commodity Prices

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2. Selection of commodities
3. Development of the commodity price index
4. Recent developments on the oil market
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Overview commodity price index



Overview commodity price index

- The Index is divided in three main pillars. Each pillar is subdivided in several subparts of commodities and represents commodity groups.
- The index gives an overview of the current price trends in primary commodity markets.
- It shows the importance cost for consumer countries and an important factor in export returns of emerging economies.

Overview commodity price index

- Industry & decision makers of the monetary policy are using the HWWI-index
- Is included in statistical databases of national and international institutions
 - Figures are calculated weekly and monthly
 - Historical background:
 - Is one of the oldest commodity-indices
- It is updated regularly with daily figures being calculated once every week and is available on a paid subscription basis

Example for the use of the commodity price index

- Deutsche Bundesbank uses the HWWI commodity price index regularly for publications

Source: Deutsche Bundesbank, monthly report February 2018

Weltmarktpreise für Rohöl, Industrierohstoffe sowie Nahrungs- und Genussmittel

Monatsdurchschnitte, log. Maßstab



Quellen: Bloomberg Finance L.P. und HWWI. • Letzter Stand: Durchschnitt 1. bis 9. Februar bzw. 1. bis 15. Februar 2018 (Rohöl).

Deutsche Bundesbank

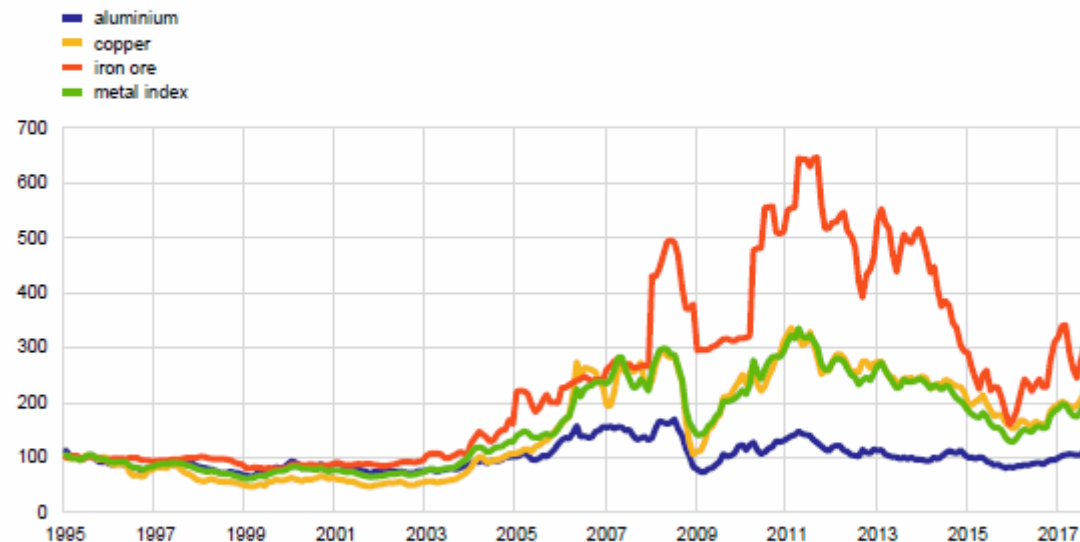
Example for the use of the commodity price index

Another example of the use of the HWWI commodity price index

Chart A

Metal prices

(index: 1995=100)



Sources: Bloomberg, Hamburg Institute of International Economics (HWWI) and ECB calculations.

Notes: The metal index includes aluminium, copper, lead, nickel, steel scrap, tin, zinc and iron ore. The weights are based on imports into euro area countries (see Chart B).

Source: ECB Economic Bulletin, Issue 8 / 2017
– Boxes What is driving metal prices

Mathematical background

- Calculated by the Laspeyres-formula

- $$I_{0,t} = \frac{\sum p_{i,t} * q_{i,0}}{\sum p_{i,0} * q_{i,0}}$$

- The weighted sum of the prices of the current period is divided by the corresponding sum of the base period, where in both cases weights are given by the corresponding quantities of the base period.

- Only unprocessed or little-processed goods included, thus excluding labour costs and other factors
- Availability of international market prices
- Commodities subject to market distortions like import-taxes were excluded:
 - Products strongly influenced by the Common Agricultural Policy (CAP) of the EU
 - Precious metals due to speculation

Index-Weights

Weighting of Commodities and Commodity Groups in the HWWI Index Index, total (all commodities)

2015 = 100

	Weights HWWI-Index¹	Weights HWWI-Index 'Euroland'²
HWWI Index, total	100,00	100,00
HWWI Index, total excl. Energy	13,80	19,60
Food total	5,70	8,20
Cereals	1,30	1,70
Oilseed, oils	2,10	3,90
Tropical beverages, sugar	2,30	2,60
Industrial raw materials	8,10	11,40
Agriculture raw materials	2,00	2,60
NFB metal ³	3,90	5,60
Iron ore, scrap	2,20	3,30
Energy raw materials	86,20	80,40

¹ World imports of OECD countries minus Intra-OECD trade, 2015

² Imports of EU17 countries from other countries, 2015

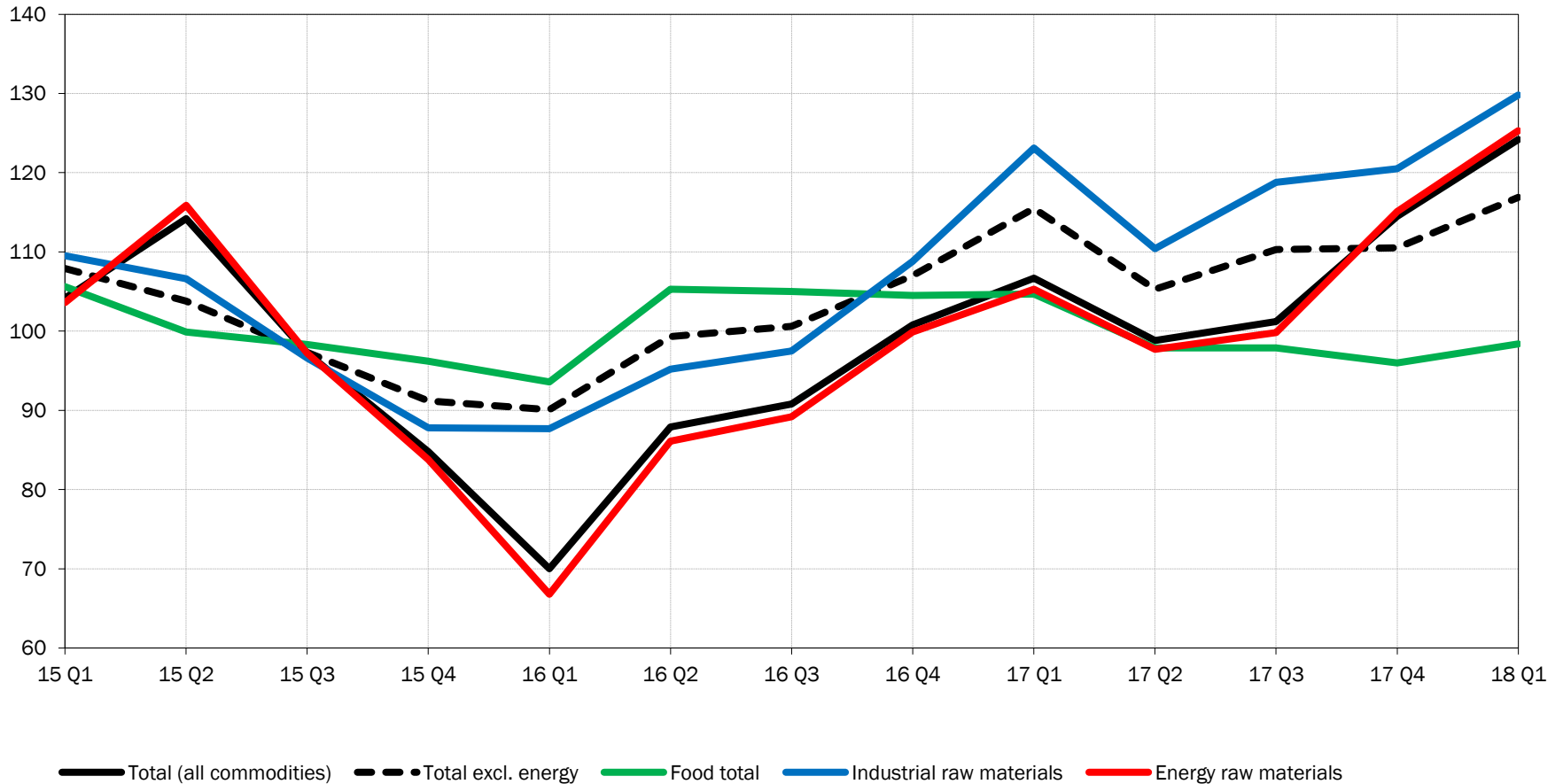
³ non-ferrous base metals

- The Total Index weights reflect share in total raw material imports of the OECD countries, excluding OECD-internal trade
- Index 'Euroland' weights reflect EU17 imports from third countries (non-EUR17 countries)
- Weights of the individual commodities are updated every 5 years:
 - based on the total value imported into the OECD as reported by OECD market statistics (HWWI Index)
 - based on the total value imported into the EU17 from Non-Euro countries (Euroland Index)

Development of the HWWI-Index

HWWI-Index USD monthly average

Index 2015=100



source: HWWI

Development of the HWWI-Index

Since the last meeting in April 2017:

- Since Q2/2017 divided development of the commodity prices
- From Q3/2017 price for energy and industrial raw materials started to rise
- Prices for food dropped in Q3/2017 and Q4/2017
 - Good harvests in 2017 resulted in higher supply despite ongoing high demand
- Food prices began to rise in Q1/2018
 - Concerns of poor harvest due to bad weather resulted in higher prices

Summary of recent Index development

2015=100	04/17	04/18	% change
Total Index	103.5	128.4	24
Food total	98.4	101.0	3
Industrial raw materials	115.3	126.9	10
Energy raw materials	102.7	130.4	27
Crude oil	102.5	134.8	32
<i>Crude oil (in USD/Barrel)</i>	<i>52.5</i>	<i>69.1</i>	

Summary of recent Index development

- All pillars increased
- The biggest increase is observed for Energy raw materials
 - And crude oil was the main price driver
- Increase of the industrial raw materials is 2nd most important factor
- Only small increase for food

Recent development crude oil

USD/barrel

average crude oil price (2016 – 2018)



source: HWWI, own calculation, macrobond

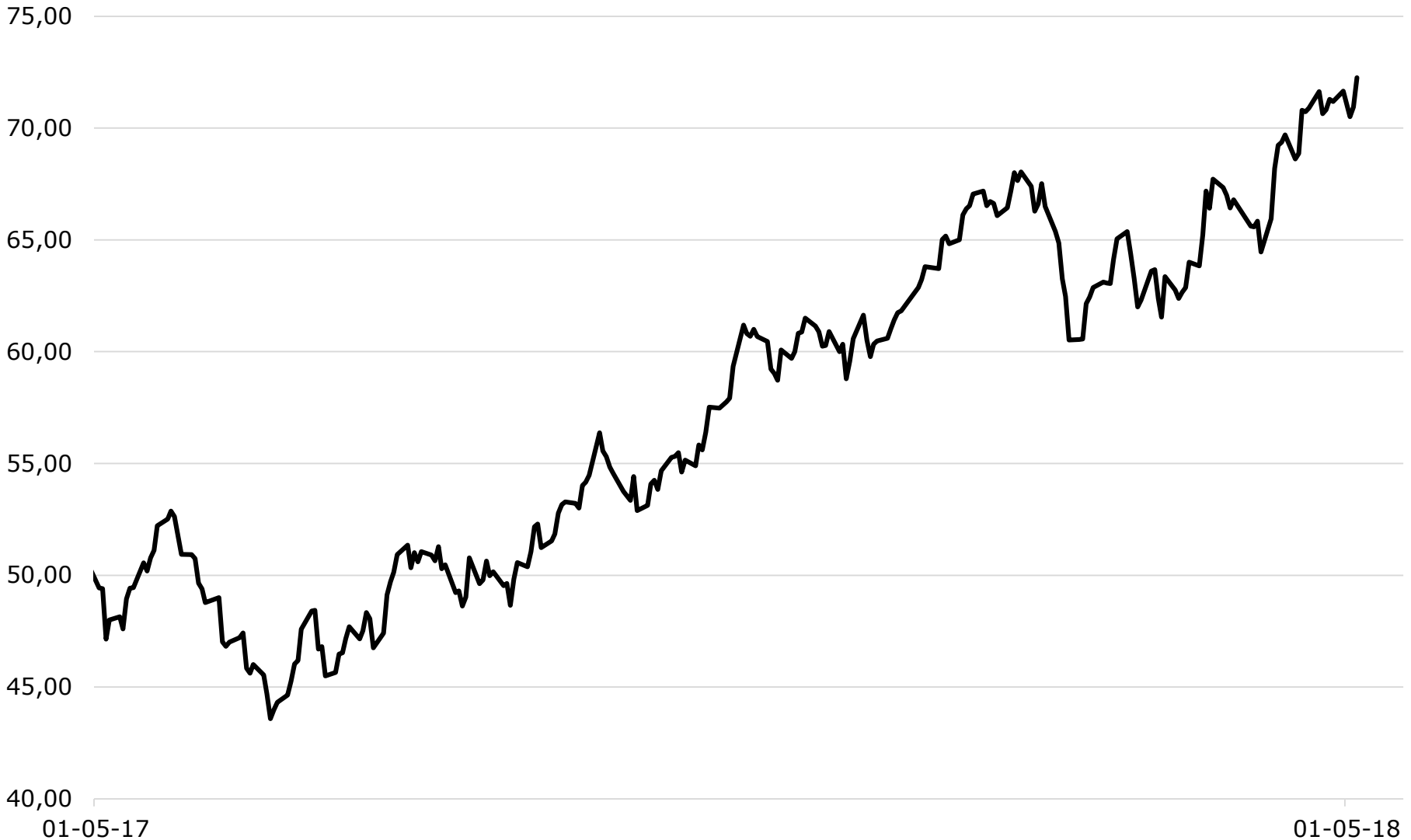
Recent development crude oil

- On 20 January 2016:
 - the average oil price reached a 13-year low of 26.63 USD per barrel
- At the beginning of 2017, the agreement on production cuts between OPEC and Russia came into force:
 - the average price of crude oil on January 02, 2017 was 55.09 USD per barrel
- In the first half of 2017 the average crude oil price drops down:
 - the average price of crude oil on June 21, 2017 was 43.58 USD per barrel

Recent development crude oil

USD/barrel

average crude oil price (May 2017 – May 2018)



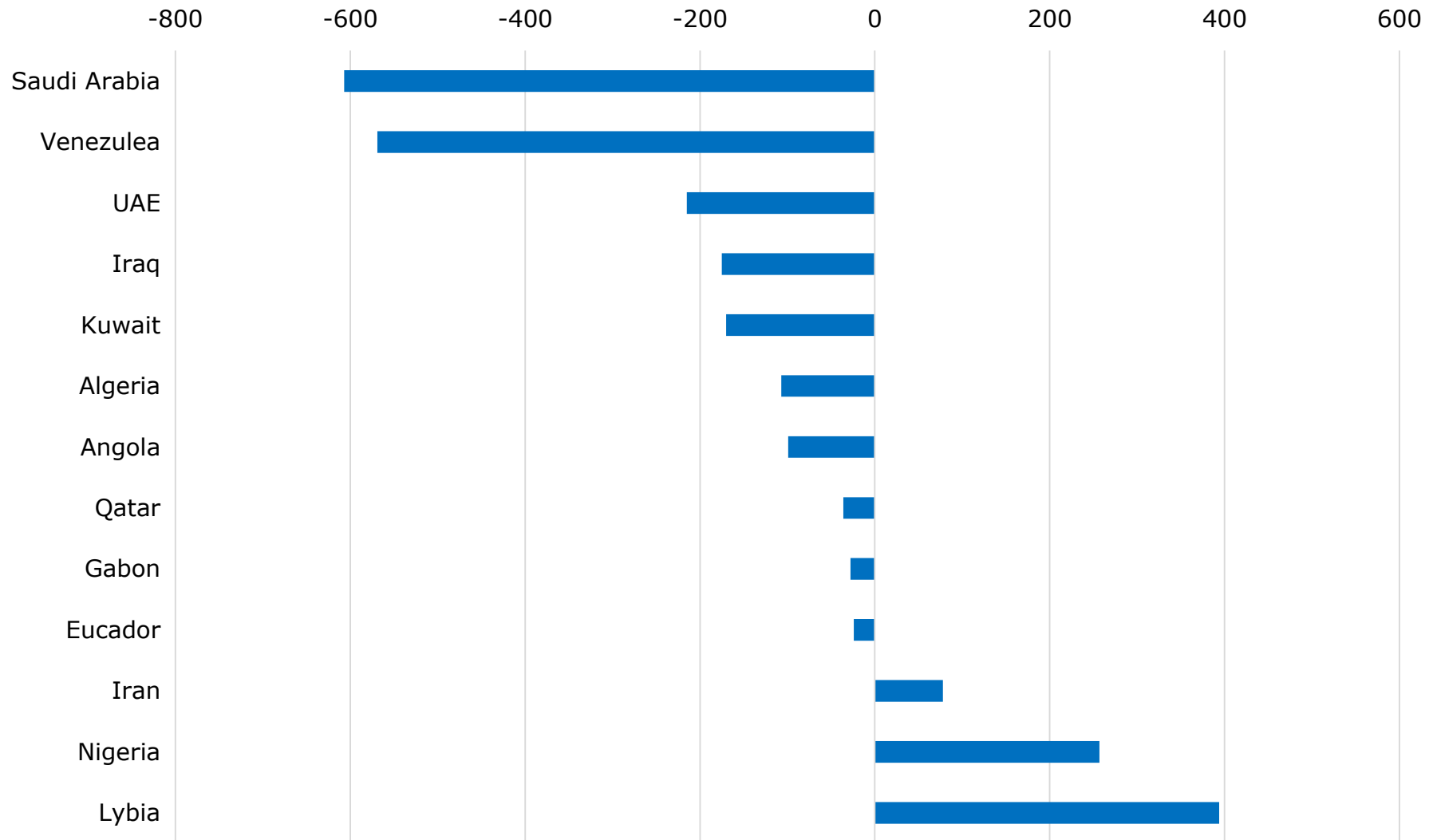
source: HWWI, own calculation, macrobond

Recent development crude oil

- In July 2017, the price of crude oil began to rise as the supply cuts of OPEC and Russia began to have an impact:
 - Production overhang has been inversed
 - Demand accelerated
 - Output cuts reduced stocks
- In November 2017 US crude oil production surpasses 10m barrel per day
- In February 2018 Venezuela crude oil production drops to 30-year low
- In May 2018 crude oil hits 75 USD per barrel for the first time since 2014

Recent development crude oil

output change [millions of barrel per day] since Dec 2016



source: OPEC

Recent development crude oil

- OPEC continues to cut daily oil output since the end of the year 2016:
 - Total net cut: - 1.3m barrels per day (target: 1.8mb/d: 1.2 mb/d OPEC, 0.6 mb/d Russia)
 - Libya and Nigeria are exempt from OPEC oil cuts
 - Less than 10% change:
 - Algeria, Angola, Ecuador, Gabon, Iran, Iraq, Kuwait, Qatar, and Saudi Arabia
 - Saudi Arabia reduced the most, evens out surplus of other countries
- Russia is interested in price over 70 USD per barrel
- USA increased the crude oil production

Future Development Crude oil 2018

Demand/Supply Balance



Future Development Crude oil 2018

- Crude oil is taken out of stock since Q2 2017 to satisfy demand
- Demand is about 0.8 mb/d higher than supply
- According to IEA: Recent development is going to continue in the nearer future

Geopolitical risks on the crude oil market

However, the current price trend is subject to a range of supply-side risks:

- Most immediate risk, US president, Donald Trump, choosing to withdraw from the Iran nuclear deal and reimposing sanctions on its oil exports
- 2nd is Venezuela
 - Elections on May 20
- 3rd is Yemen
 - Fellow OPEC member and rival to Saudi Arabia, Houthi rebels targeting oil production
- 4th is Libya, still unstable after civil war

The risks are greater than they were during the Arab Spring

- Increasing oil prices with increasing demand
 - Uncertain political development
- Indications for increasing food prices
- Growing prices for industrial raw materials, growing demand expected

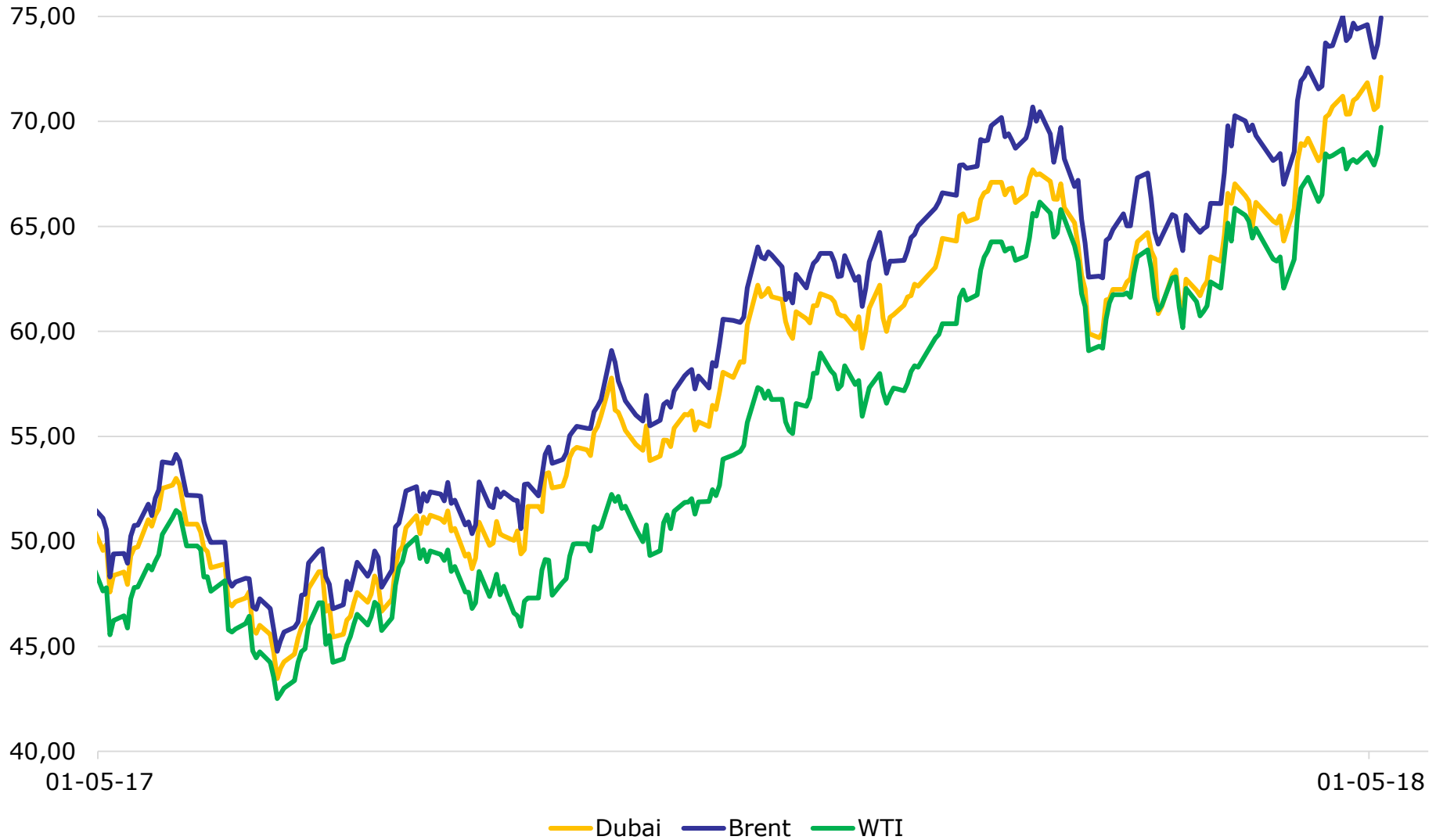
Thank you for your attention!
Dziękuję Państwu bardzo za uwagę !



Recent development crude oil

USD/barrel

crude oil prices by type (May 2017 – May 2018)

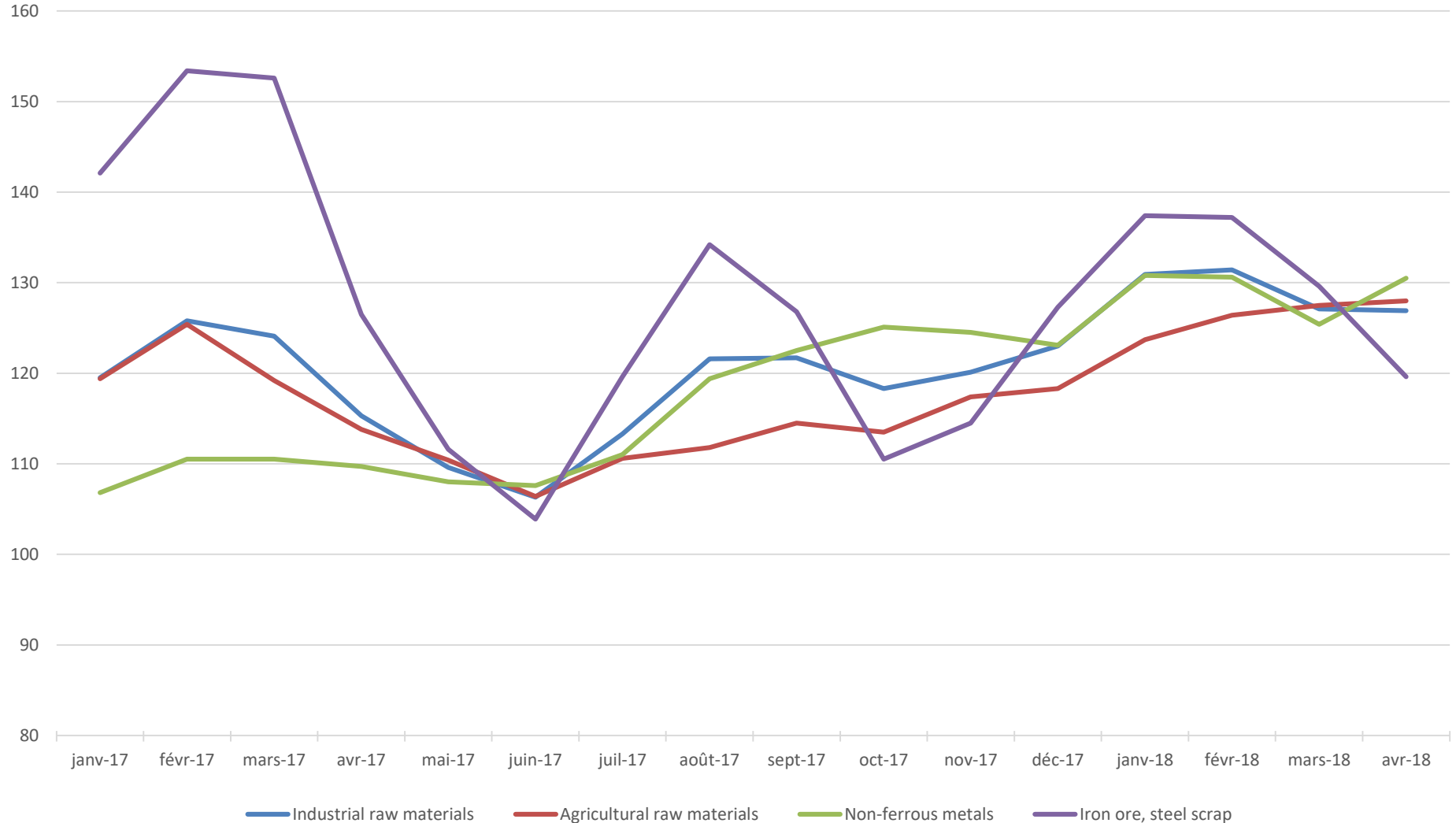


source: HWWI, macrobond

Recent Industrial Raw Materials Price Development

HWWI index USD
2015=100

Industrial raw materials



source: HWWI

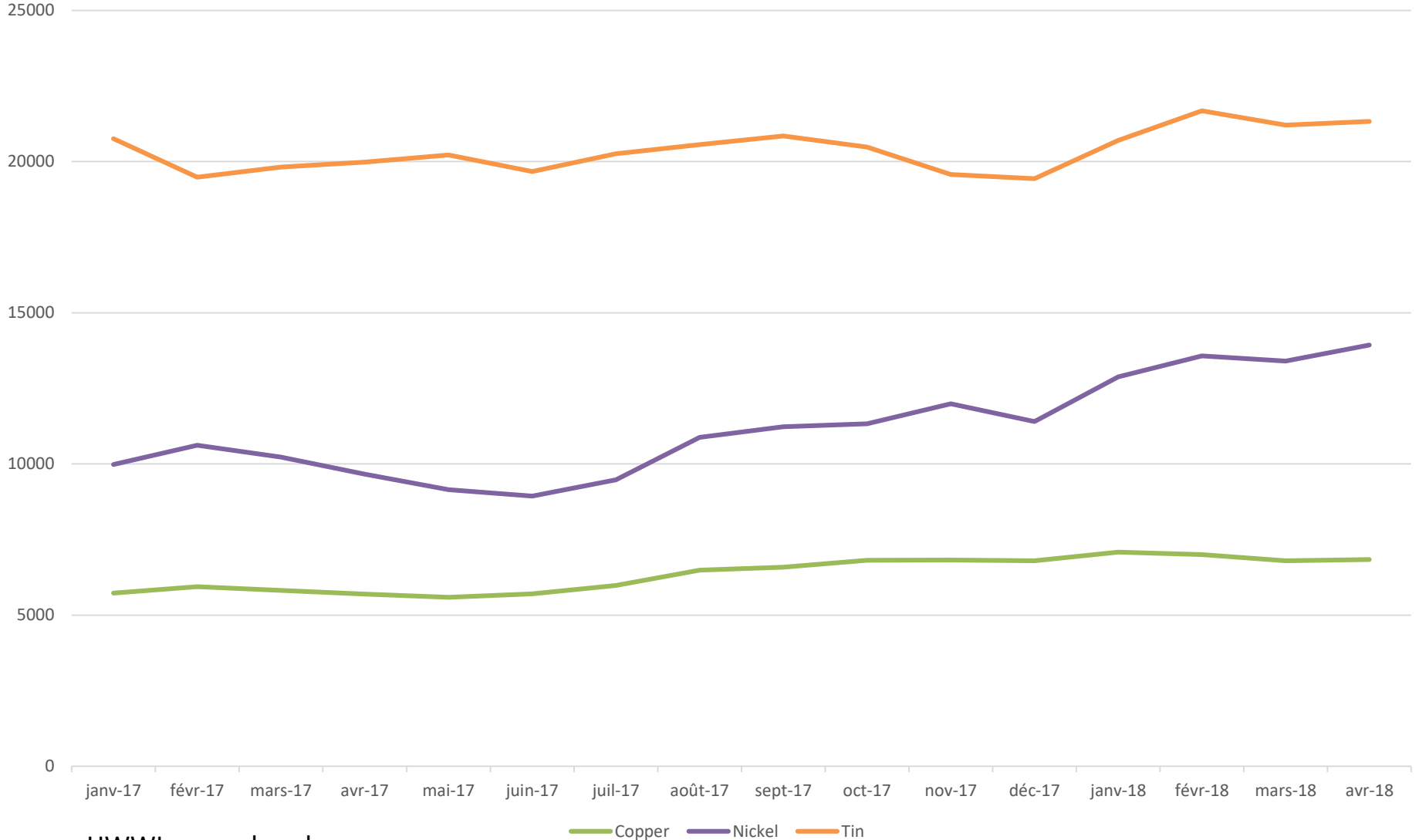
Recent Industrial Raw Materials Price Development

- Iron Ore and steel scrap are most volatile
 - Important Influenced by the Chinese environment policy, they want to improve the air for their own citizens in the winter month
 - Reduced steel production in China
 - The price for Iron Ore and steel scrap increase, because the steel stock is reduced

Recent Industrial Raw Materials Price Development

avg. US\$/ton

Non-ferrous base metals (1/2)

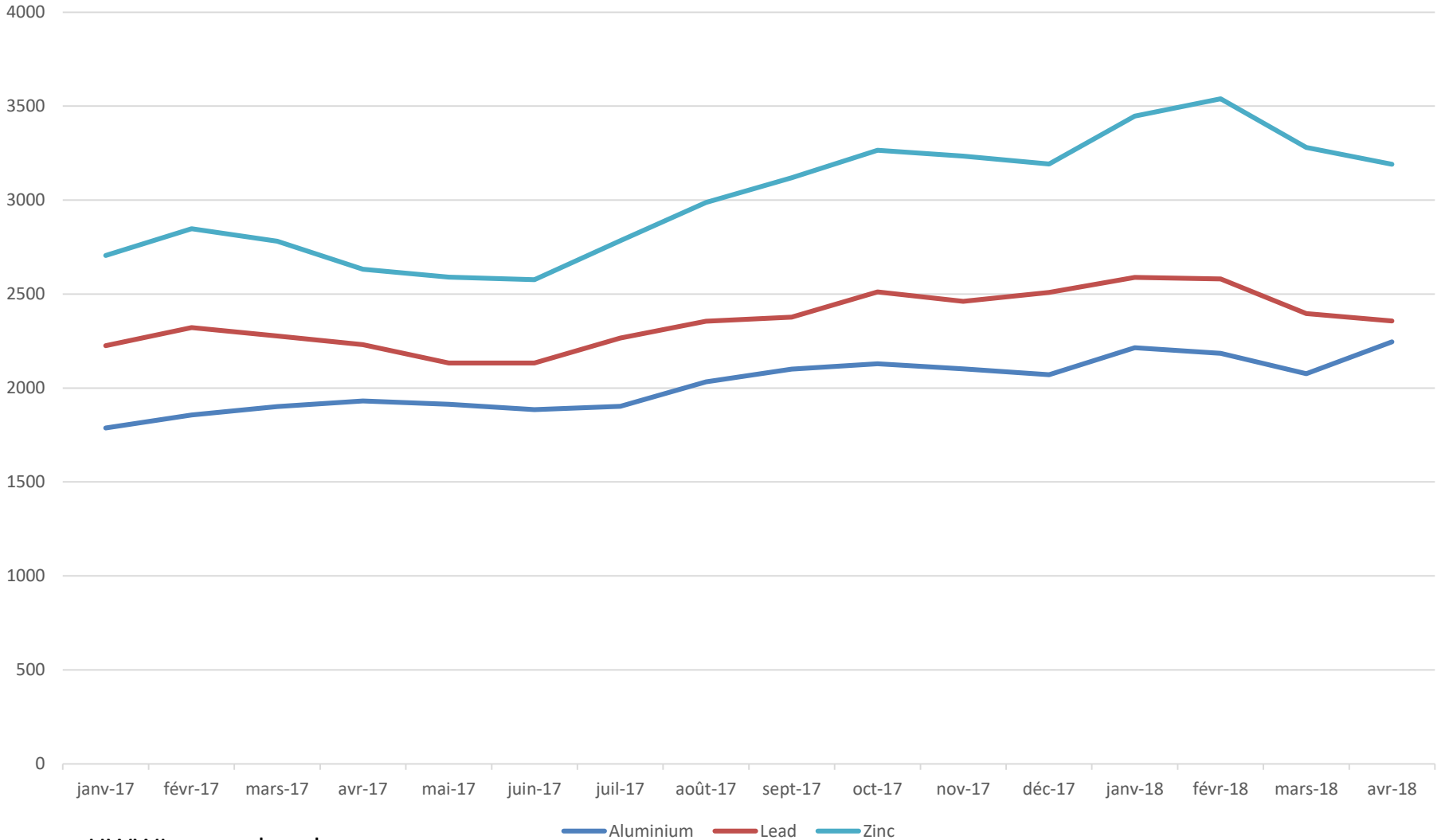


source: HWWI, macrobond

Recent Industrial Raw Materials Price Development

avg. US\$/ton

Non-ferrous base metals (2/2)

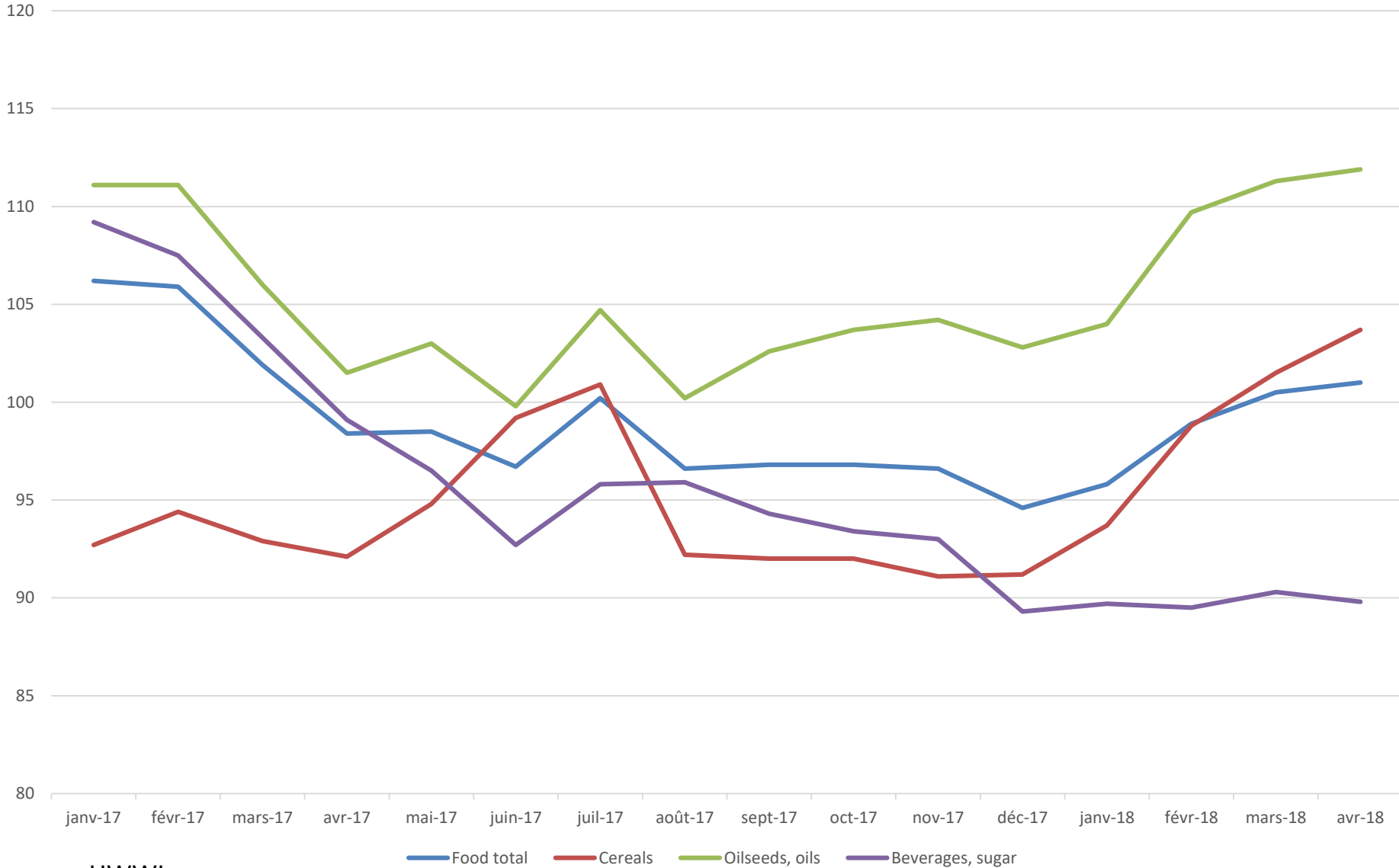


source: HWWI, macrobond

Recent Food Price Development

HWWI index USD
2015=100

Food prices

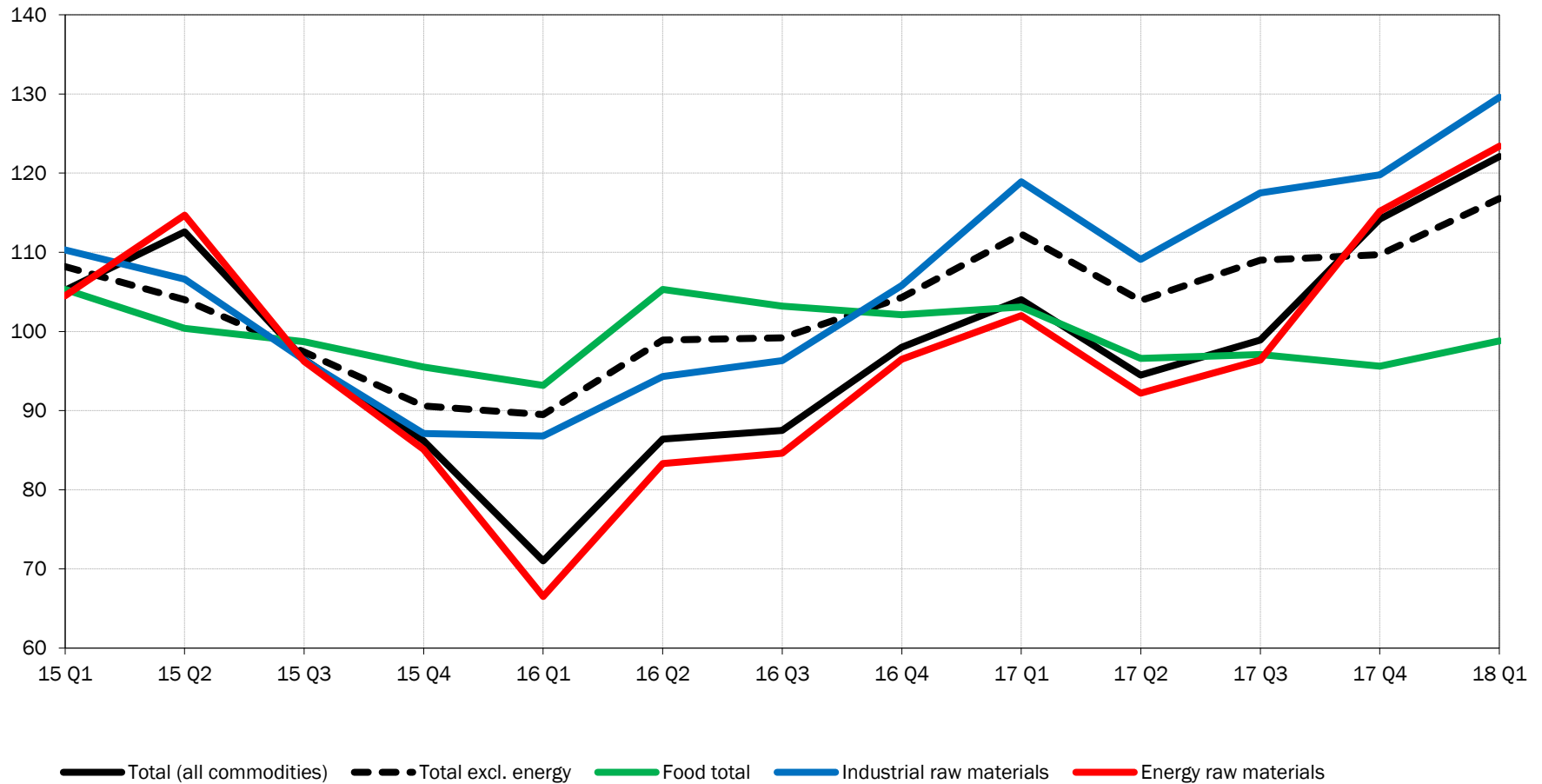


source: HWWI

Historical Development of the HWWI- and Euroland-Index

HWWI-Euroland Index USD monthly average

Index 2015=100



source HWWI

Future Development Crude oil 2018

- Decreased supply because of OPEC agreement
- Increasing supply because of fracking in the USA based on the current environmental policy
 - Currently, US shale oil production does not seem to have a significant impact on world market crude oil prices due to transportation problems
 - US-president Trump seeks to open most U.S. coastal waters to new drilling, would increase crude oil production, easy export possible

Sources

- https://www.bundesbank.de/Redaktion/DE/Downloads/Veroeffentlichungen/Monatsberichte/2018/2018_02_monatsbericht.pdf?__blob=publicationFile
- https://www.ecb.europa.eu/pub/pdf/other/ebbox201708_01.en.pdf?d349e8891e79b01732c5188a21fd7803
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