The European
Foundry Association

CAEF

The European Foundry Association

September 2019

www.caef.eu

Global Foundry Industry 2017 – Ranking

Source: National Associations, modern casting

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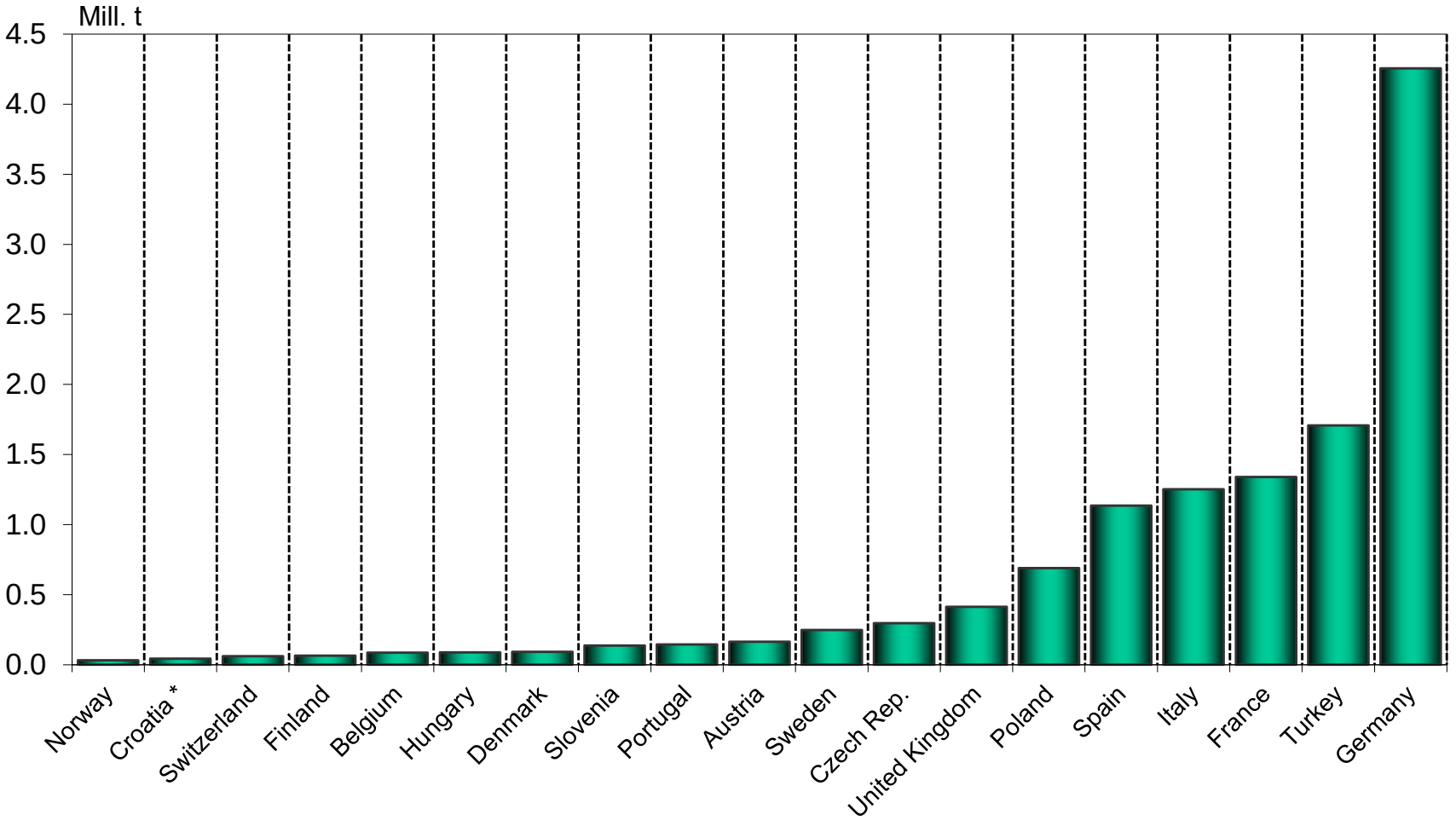
Europe: Iron- and Steel Castings 2018



Source: CAEF, *=2016

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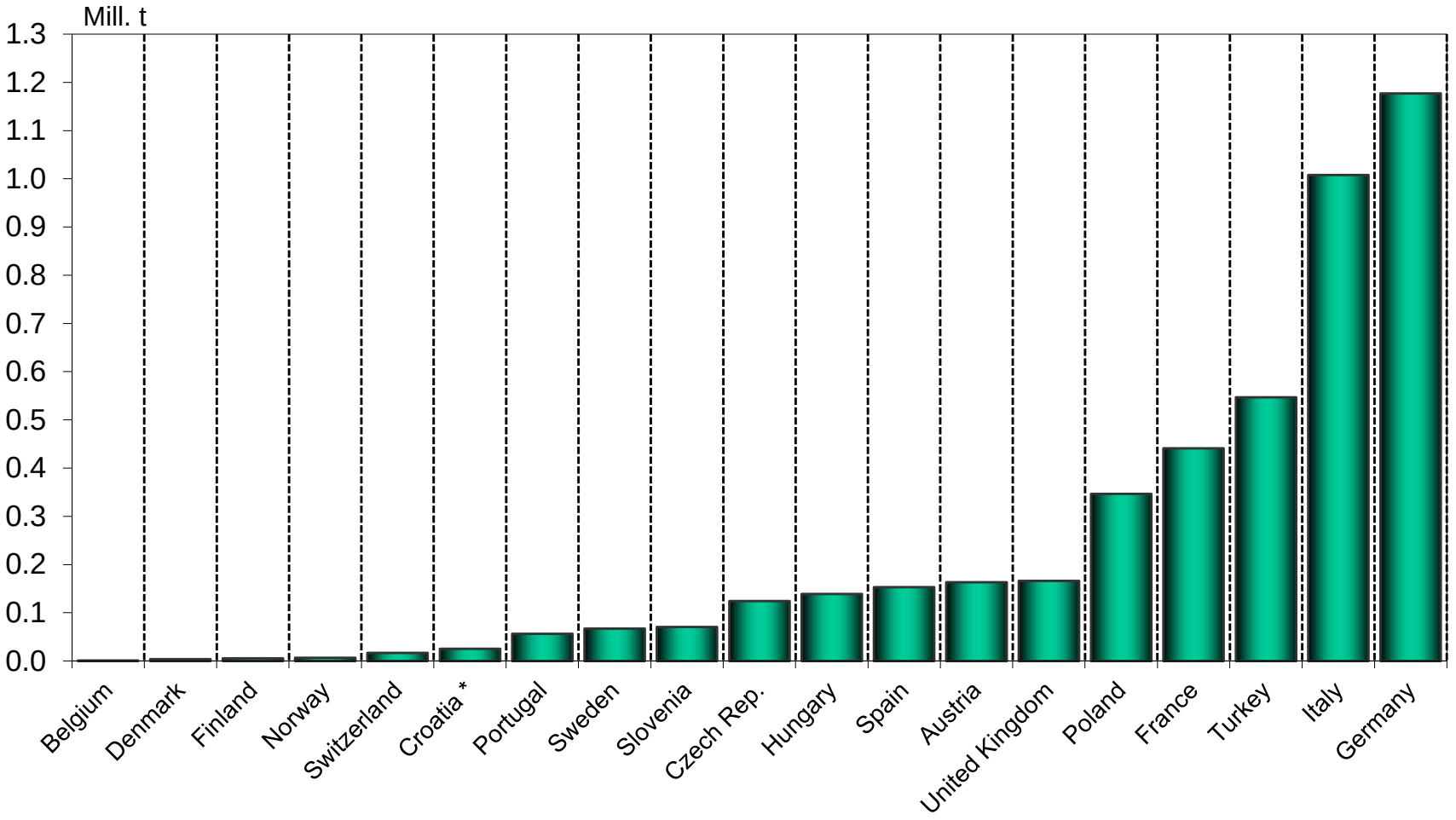
Europe: Non-Ferrous Castings 2018



Source: CAEF, *=2016

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Economy and Key Indicators - Background for Foundry Business
Question in September: Signals for bottom out?

Bild: Fotolia

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Early Indicator: Manufacturing Purchasing Manager Index (PMI)

- is a measure of the prevailing direction of economic trends in the manufacturing sector
- it consists of an index that summarises whether market conditions, as viewed by puchasing managers, are expanding, staying the same, or contracting
- the purpose of the PMI is to provide monthly information about current and future business conditions to company decision makers, analysts and investors
- Therefore, the PMI is earliest available information about the development of an economy!

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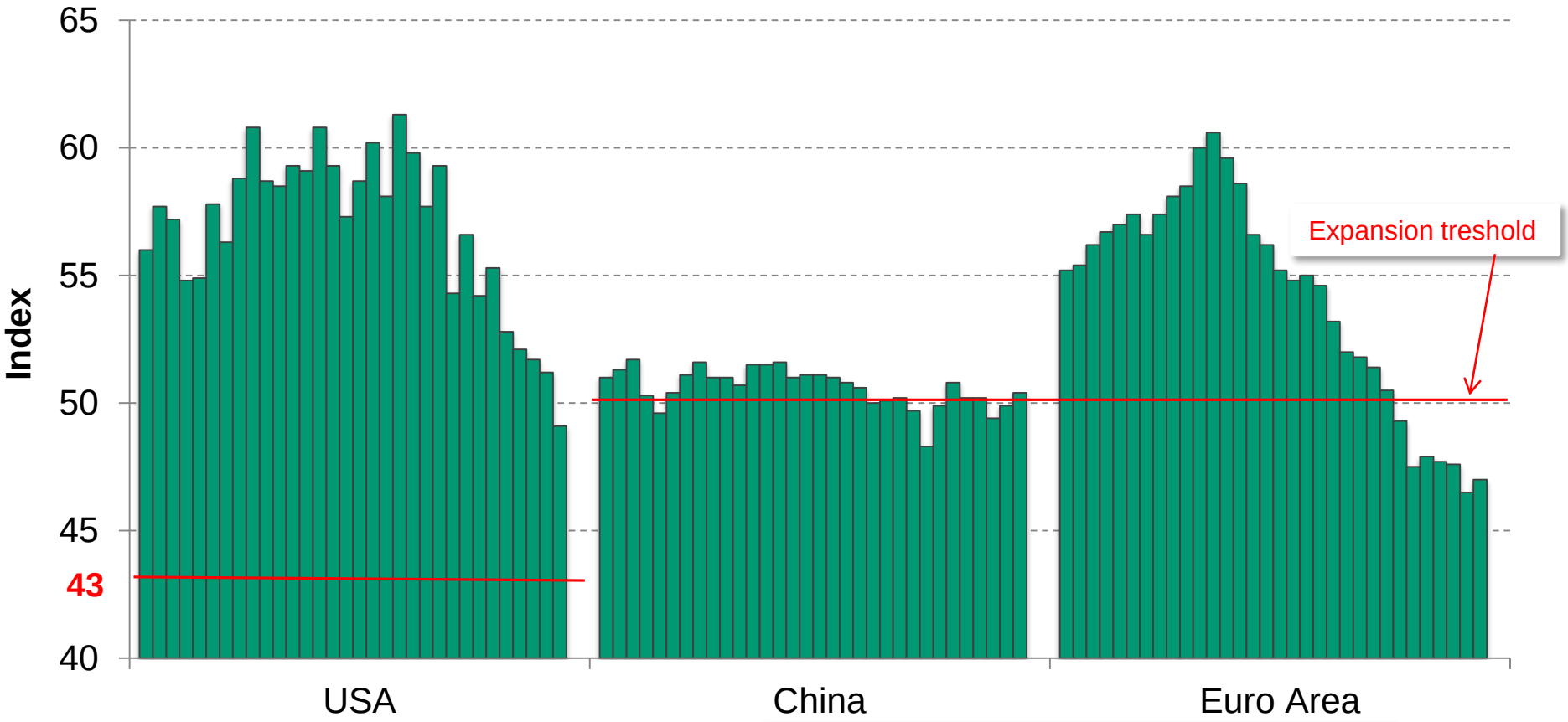
Manufacturing Purchasing Manager Index (PMI) in large regions
January 2017 – August 2019



USA: Expansion treshold at 43 points
= dominated by the consumption sector

Index above 50 points
= increasing economy
(dominated by industrial production and service)

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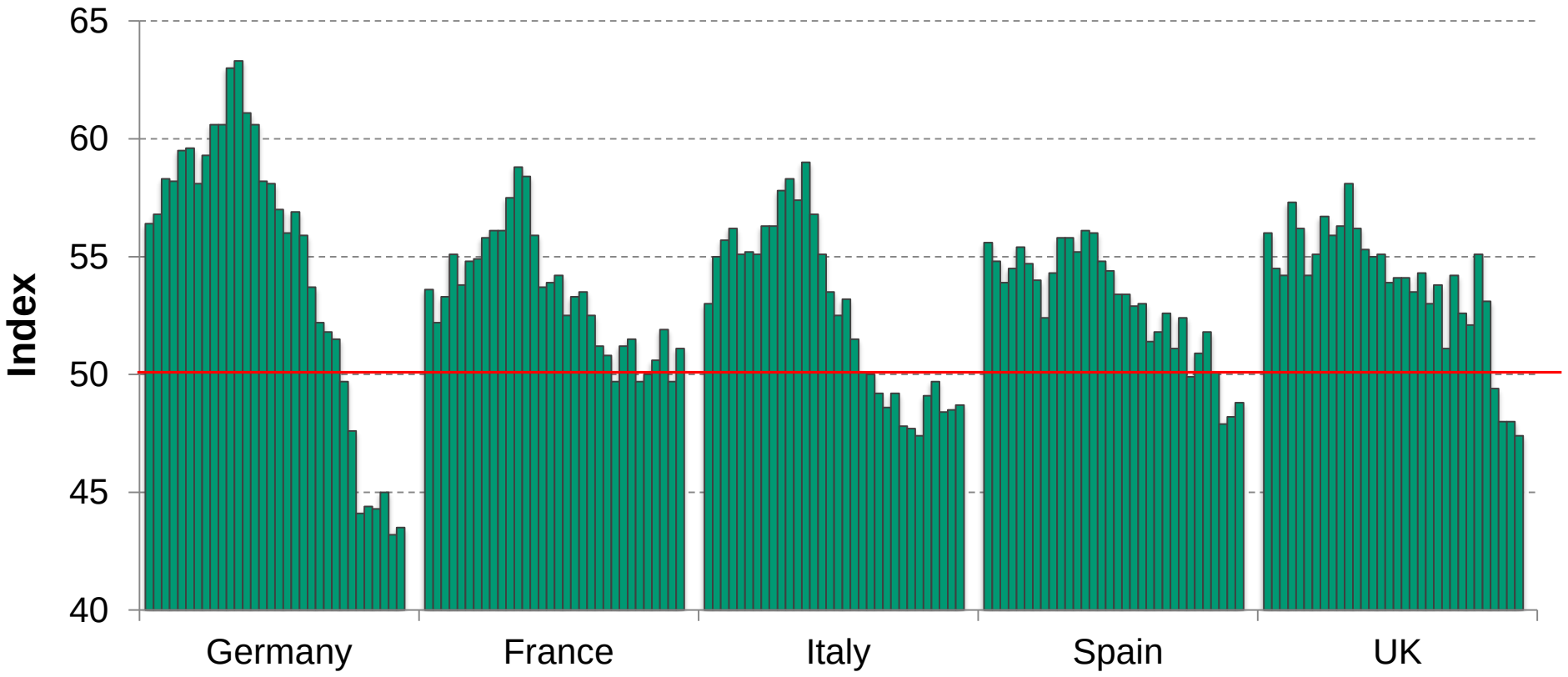
Source: ISM, Markit, http://de.tradingeconomics.com/

Manufacturing Purchasing Manager Index (PMI) in the Euro Area *
January 2017 – August 2019



Index above 50 points
= increasing economy (dominated by industrial production and service)

* plus UK
Source: Markit, http://de.tradingeconomics.com/

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Manufacturing Purchasing Manager Index (PMI) versus GDP Euro Area

Source: IHS Markit, Deka Bank

22th August 2019

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GDP OECD – second quarter 2019 corresponding to PMI

	2017			2018				2019	
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
OECD-Total	0.6	0.8	0.8	0.5	0.6	0.3	0.2	0.6	0.5
G20	0.9	1.1	1.0	1.0	0.8	0.8	0.7	0.8	..
European Union	0.6	0.7	0.7	0.4	0.4	0.3	0.3	0.5	0.2
Euro area	0.7	0.7	0.7	0.4	0.4	0.2	0.2	0.4	0.2
Major Seven	0.5	0.7	0.7	0.4	0.6	0.4	0.3	0.6	0.4
Canada	1.1	0.3	0.4	0.4	0.6	0.5	0.1	0.1	..
France	0.7	0.7	0.7	0.2	0.2	0.3	0.4	0.3	0.2
Germany	0.6	0.9	0.7	0.1	0.4	-0.1	0.2	0.4	-0.1
Italy	0.4	0.4	0.4	0.2	0.0	-0.1	-0.1	0.1	0.0
Japan	0.4	0.7	0.3	-0.1	0.4	-0.5	0.4	0.7	0.4
United Kingdom	0.3	0.5	0.4	0.1	0.4	0.7	0.2	0.5	-0.2
United States	0.5	0.8	0.9	0.6	0.9	0.7	0.3	0.8	0.5

.. : Latest quarter not yet available.

Source: EU, OECD=Organisation for Economic Co-operation and Development

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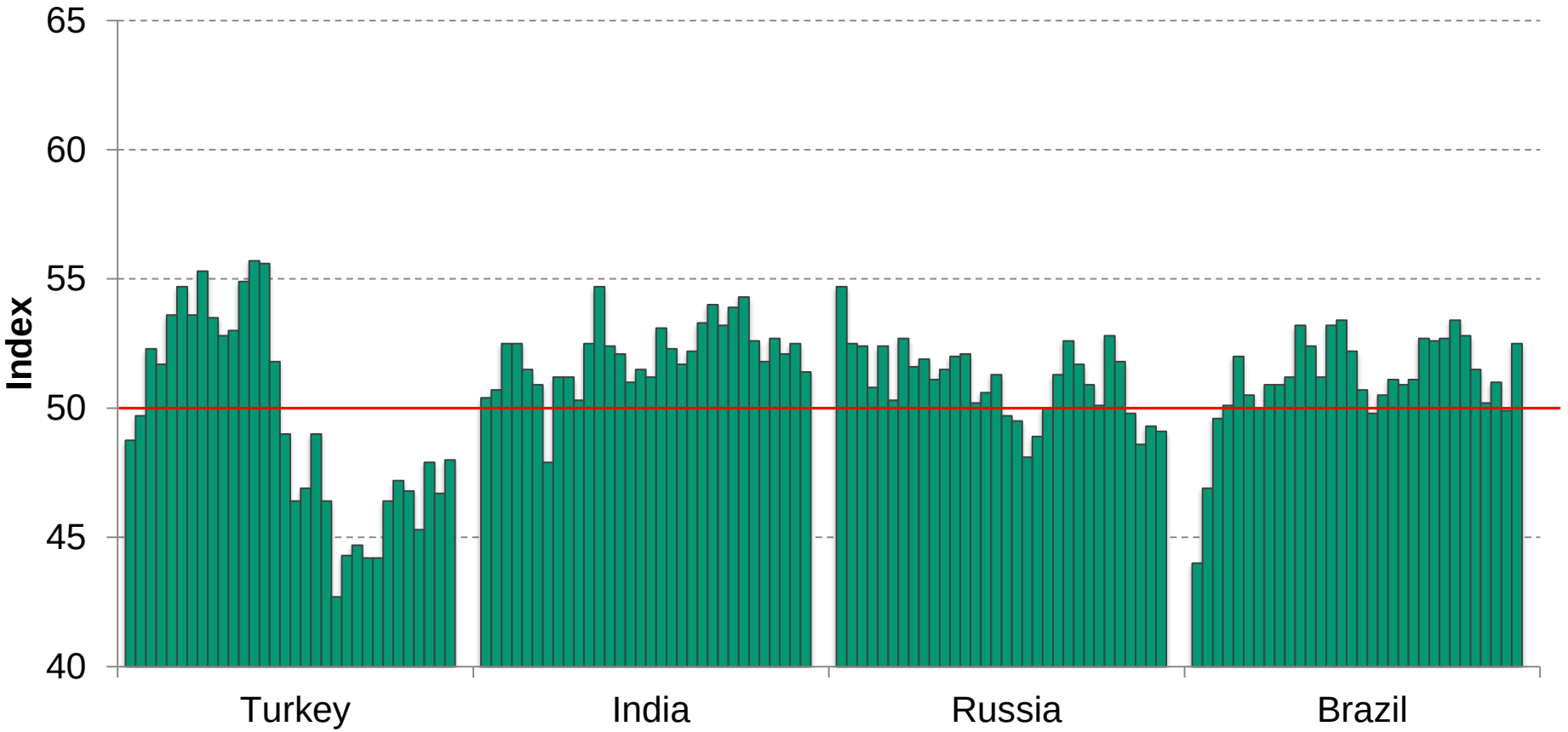
Manufacturing Purchasing Manager Index (PMI) Selected Countries
January 2017 – August 2019



Index above 50 points
= increasing economy (dominated by industrial production and service)

Source: Markit, http://de.tradingeconomics.com/

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GDP Forecast 2019/2020
Revisions of the World Economic Outlook (WEO)

	Year over Year					
			Projections		Difference from April 2019 WEO Projections 1/	
	2017	2018	2019	2020	2019	2020
World Output	**3.8**	**3.6**	**3.2**	**3.5**	**–0.1**	**–0.1**
Advanced Economies	**2.4**	**2.2**	**1.9**	**1.7**	**0.1**	**0.0**
United States	2.2	2.9	2.6	1.9	0.3	0.0
Euro Area	2.4	1.9	1.3	1.6	0.0	0.1
Germany 3/	2.2	1.4	0.7	1.7	–0.1	0.3
France	2.3	1.7	1.3	1.4	0.0	0.0
Italy	1.7	0.9	0.1	0.8	0.0	–0.1
Spain	3.0	2.6	2.3	1.9	0.2	0.0
Japan	1.9	0.8	0.9	0.4	–0.1	–0.1
United Kingdom	1.8	1.4	1.3	1.4	0.1	0.0
Canada	3.0	1.9	1.5	1.9	0.0	0.0
Other Advanced Economies 4/	2.9	2.6	2.1	2.4	–0.1	–0.1
Emerging Market and Developing Economies	**4.8**	**4.5**	**4.1**	**4.7**	**–0.3**	**–0.1**
Commonwealth of Independent States	2.2	2.7	1.9	2.4	–0.3	0.1
Russia	1.6	2.3	1.2	1.9	–0.4	0.2
Excluding Russia	3.5	3.9	3.5	3.7	0.0	0.0
Emerging and Developing Asia	6.6	6.4	6.2	6.2	–0.1	–0.1
China	6.8	6.6	6.2	6.0	–0.1	–0.1
India 5/	7.2	6.8	7.0	7.2	–0.3	–0.3
ASEAN-5 6/	5.3	5.2	5.0	5.1	–0.1	–0.1
Emerging and Developing Europe	6.1	3.6	1.0	2.3	0.2	–0.5
Latin America and the Caribbean	1.2	1.0	0.6	2.3	–0.8	–0.1
Brazil	1.1	1.1	0.8	2.4	–1.3	–0.1
Mexico	2.1	2.0	0.9	1.9	–0.7	0.0

Source: IMF=International Monetary Fund, Summer Revision 2019, WEO=World Economic Outlook

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Main Customer Industries – current status

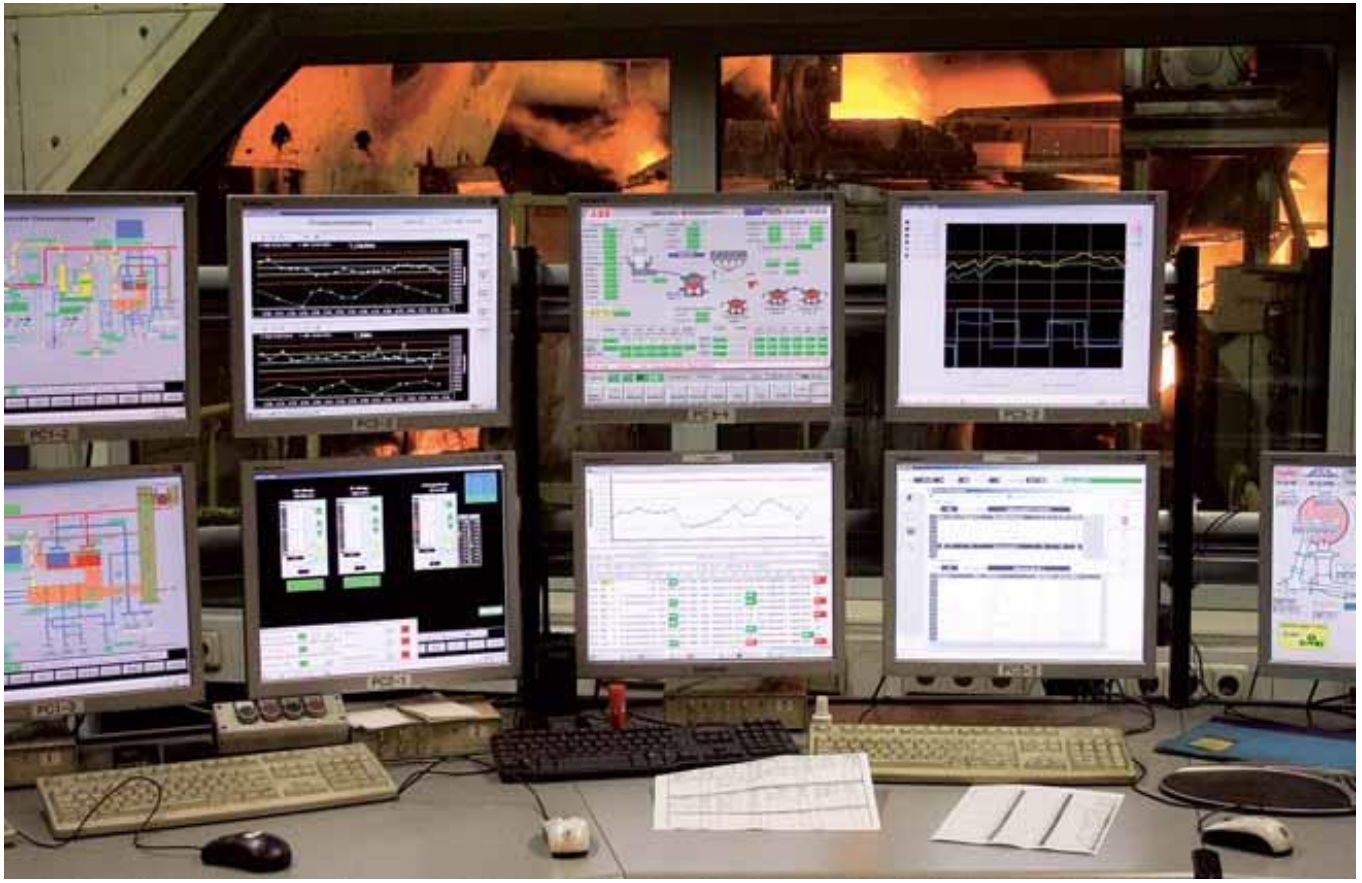

Bild: Siemens

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Vehicle industry

Bild: GF

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Passenger cars - Sales 1-7.2019: Europe and USA with minus - China with significant downturn – Brazil recovery

	July 2019		January-July 2019	
	Units	Change 19/18 in %	Units	Change 19/18 in %
Western Europe (EU15+EFTA) [1]	1,185,300	-0.2	8,856,500	-3.1
Russia* [2]	140,000	-2.4	968,700	-2.4
USA* [3]	1,392,200	2.1	9,789,300	-1.5
Japan [4]	379,400	2.9	2,665,100	0.2
Brazil* [5]	232,900	11.4	1,484,600	10.9
India [6]	200,800	-31.0	1,757,600	-13.2
China [7]	1,496,000	-3.7	11,429,000	-12.7

Source: VDA, 1) National Associations 2) AEB 3) WardsAuto 4) JAMA 5) ANFAVEA 6) SIAM 7) CAAM

Picture: Fotolia

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Passenger cars – Sales and Production Forecast 2019
China and Western Europe under pressure

Region	Sales 2019	Production 2019
World	- 4%	- 4%
USA *	- 2%	- 2%
China	- 7%	- 7%
Europe	- 1%	- 1%
new EU members	+ 3%	+ 4 %
Germany	- 1%	- 5%
France	- 1%	± 0%
UK	- 2%	- 12%
Spain	- 2%	- 3%
Italy	- 2%	- 15%
Brazil	+ 10%	- 1% (NAFTA)
Russia	- 2%	+2%
India	- 10%	- 10%
Turkey	- 35%	- 10%
Japan	± 0%	± 0%

Picture: Fotolia

Source: VDA, August 2019, USA passenger cars minus 8%, Pickups plus 1%!

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General Engineering

Bild: Metallgießerei Schüle

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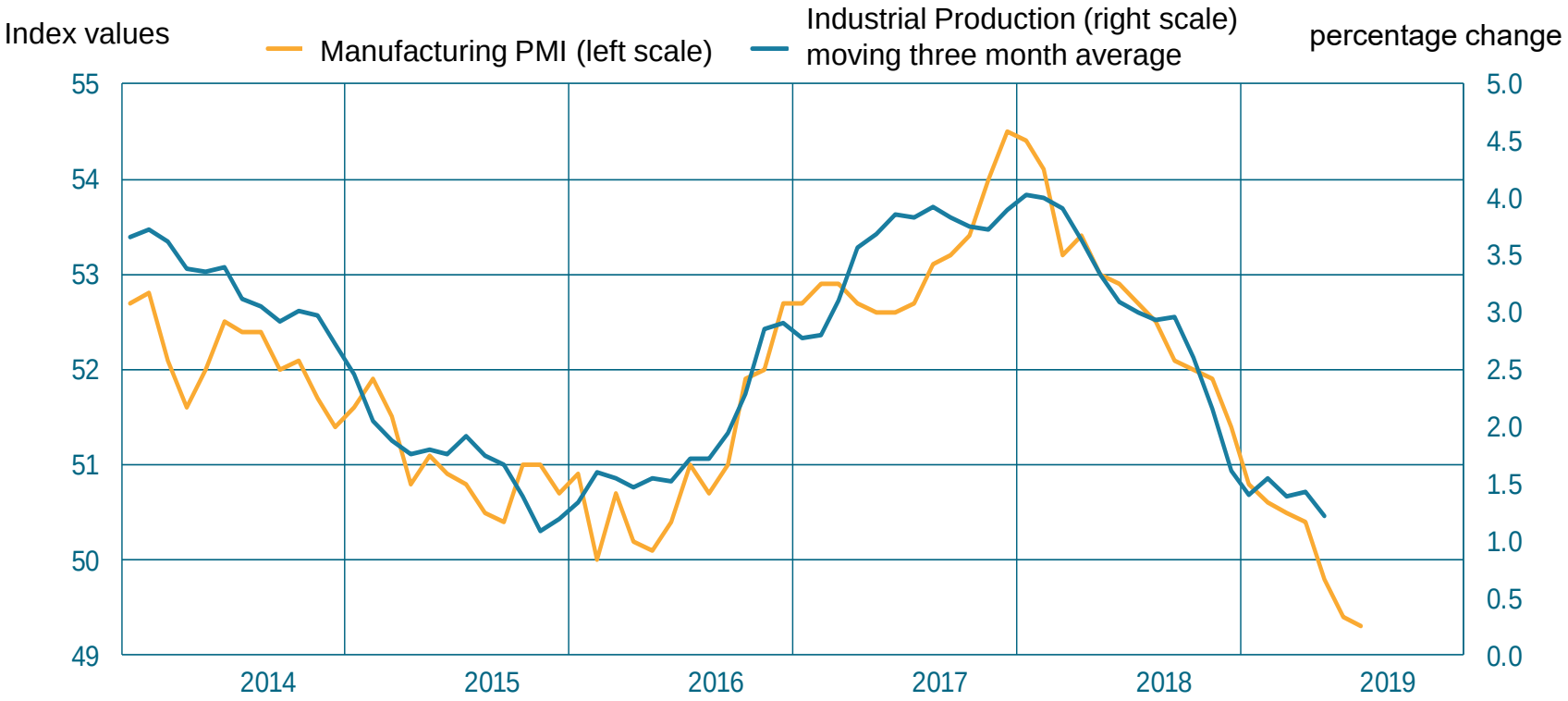
World: Purchasing manager index (PMI) vs. Industrial production
Two months of information advantage!



Source: cpb, IHS Markit, Macrobond, VDMA

- The mood among manufacturers of intermediate products and capital goods continue to deteriorate.
- The consumer goods industry is still in the expansion zone.

PMI is available two months earlier than industrial production data

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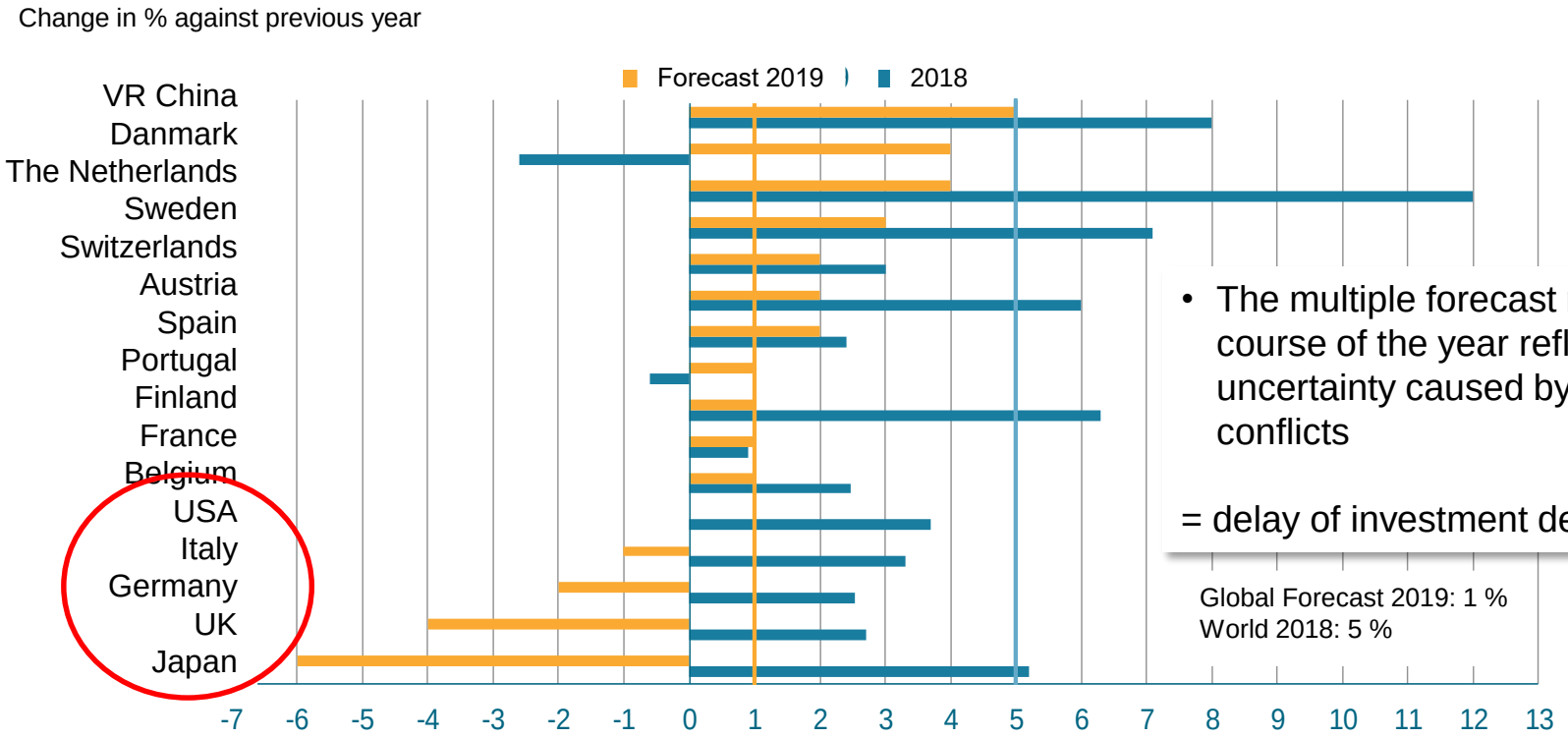
World: Sales development of the global engineering industry
Forecasts revised down for Germany, USA and Japan



Quelle: VDMA, Stand: Juli 2019

Source: VDMA

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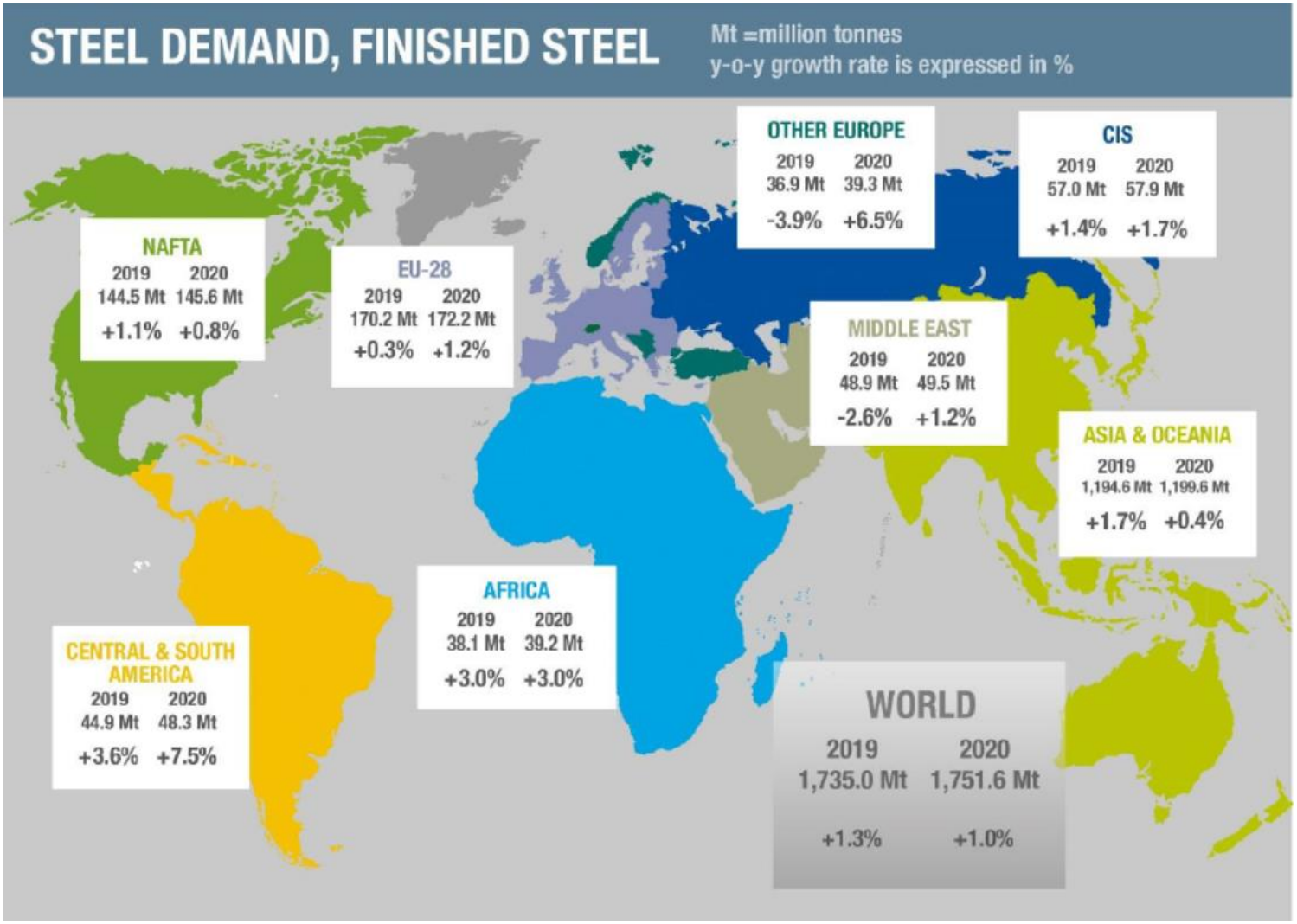
Short Range Outlook – Steel Industry 2019/2020



Source: Worldsteel, Spring 2019, next forcast October 2019

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Short Range Outlook – Steel Industry
2020 Signals of weakness for China and USMCA (former NAFTA)?

Table 2. Top 10 Steel Using Countries 2018

SRO April 2019, finished steel products

	million tonnes			y-o-y growth rates, %		
Countries	**2018**	**2019 (f)**	**2020 (f)**	**2018**	**2019 (f)**	**2020 (f)**
China	835.0	843.3	834.9	7.9	1.0	-1.0
United States	100.2	101.4	101.7	2.5	1.3	0.3
India	96.0	102.8	110.2	8.3	7.1	7.2
Japan	65.4	64.7	64.2	1.6	-1.0	-0.8
South Korea	53.6	53.4	54.1	-4.9	-0.4	1.3
Russia	41.2	41.6	42.2	0.7	1.0	1.5
Germany	40.8	40.4	41.0	-0.5	-0.9	1.4
Turkey	30.6	29.1	31.4	-14.9	-4.9	8.0
Italy	26.4	26.7	27.0	5.2	1.0	1.2
Mexico	25.4	25.8	26.1	-3.9	1.6	0.9

f - forecast

Source: Worldsteel, Spring 2019, next forcast October 2019

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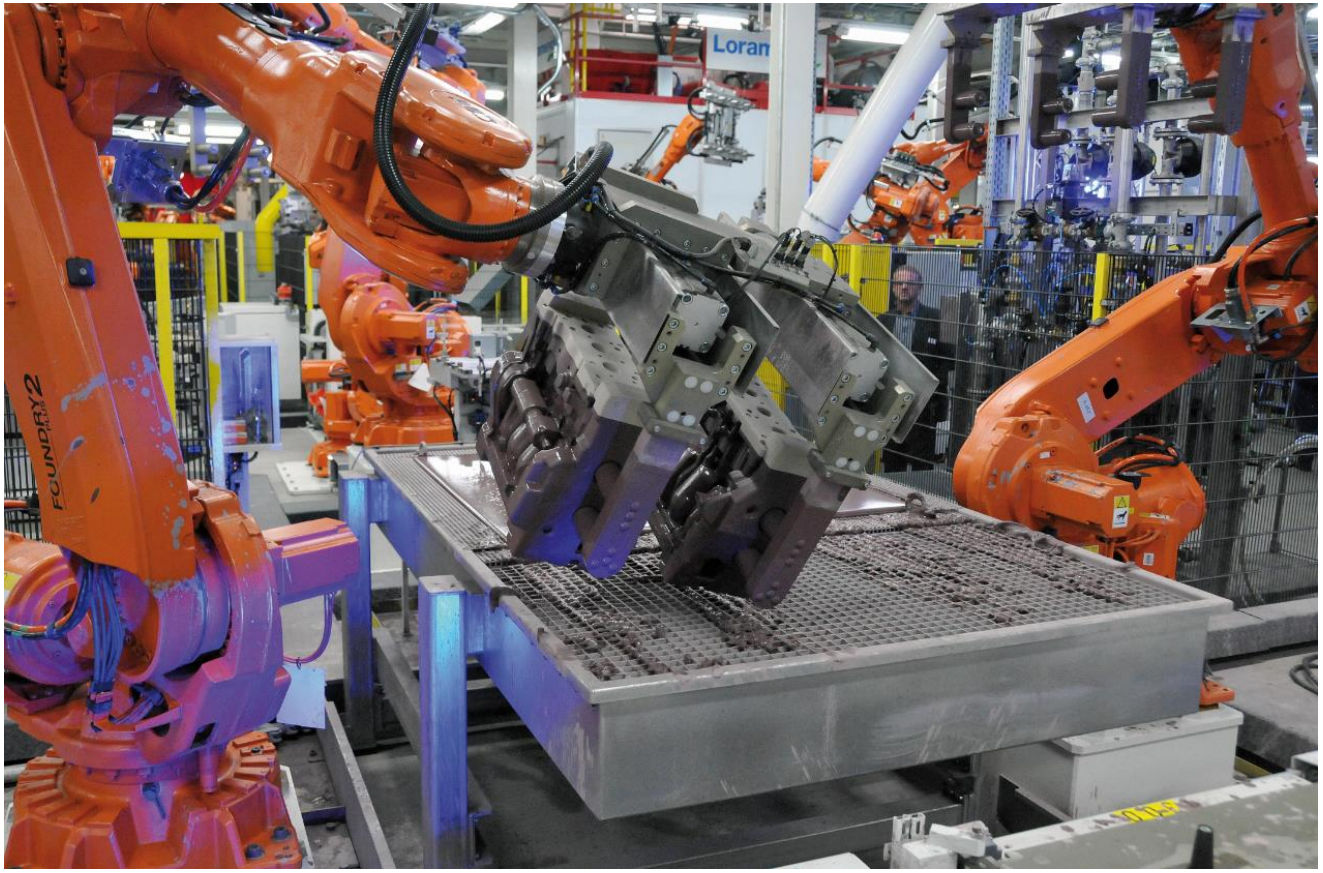
European Foundry Industry Expectations



Source: Eisenwerk Brühl, Bernd Rosenbaum

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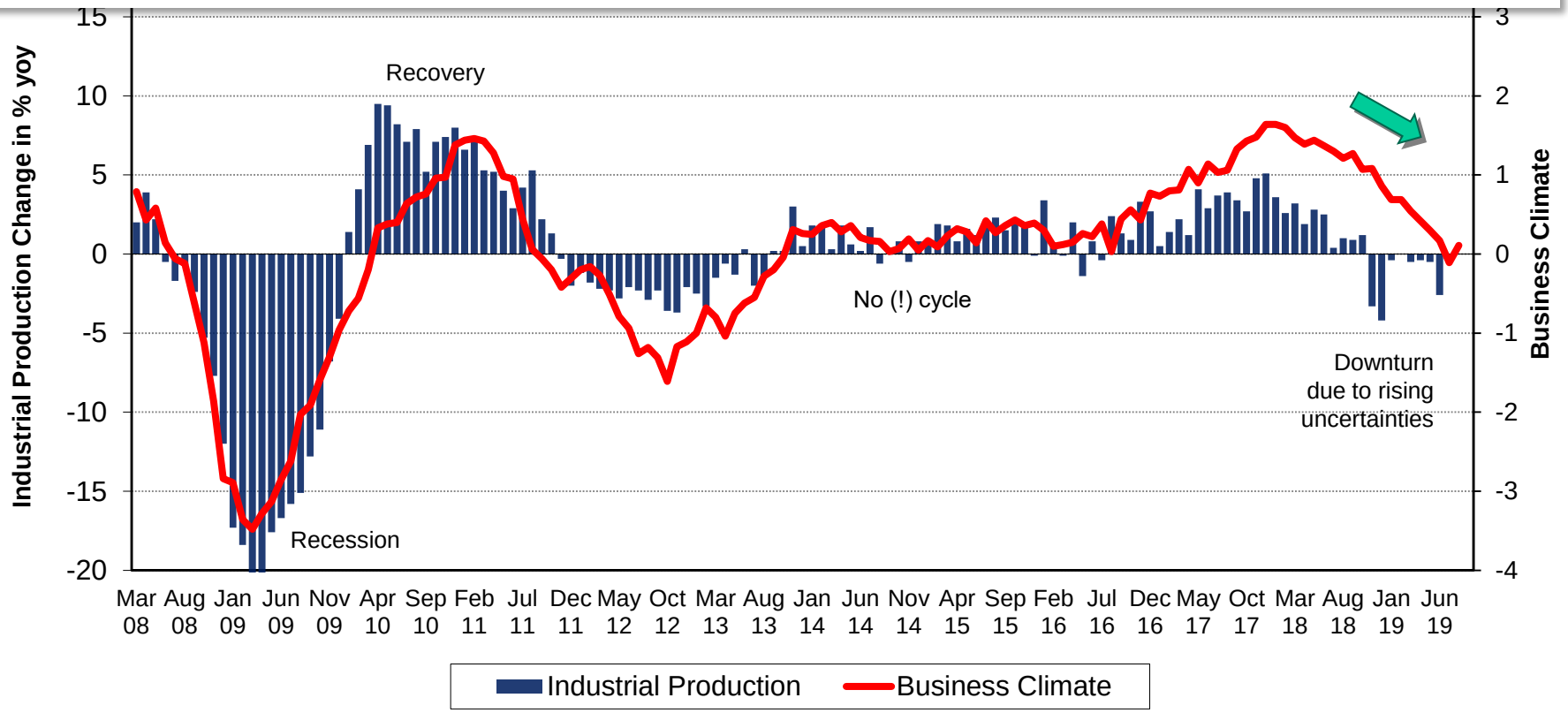
Euro Area Business Climate Indicator (BCI) August 2019

BCI = early indicator published by the European Commission

- evaluates development conditions of the manufacturing sector in the euro area every month

Snapshot August: The BCI for the euro area increased markedly.
Managers´ production expectations, their views on overall order books and the level of stocks of finished products improved markedly.



Source: Eurostat, calculation CAEF, Industrial Production June 2019

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European Foundry Industry Sentiment Indicator (FISI)

- is the earliest available composite indicator providing information on the European foundry industry performance
- collected and published by CAEF every month
- based on survey responses of the European foundry industry
- CAEF members are asked to give their assessment of the current business situation and their expectaions for the next six months
- Available at www.caef.eu on a monthly basis!

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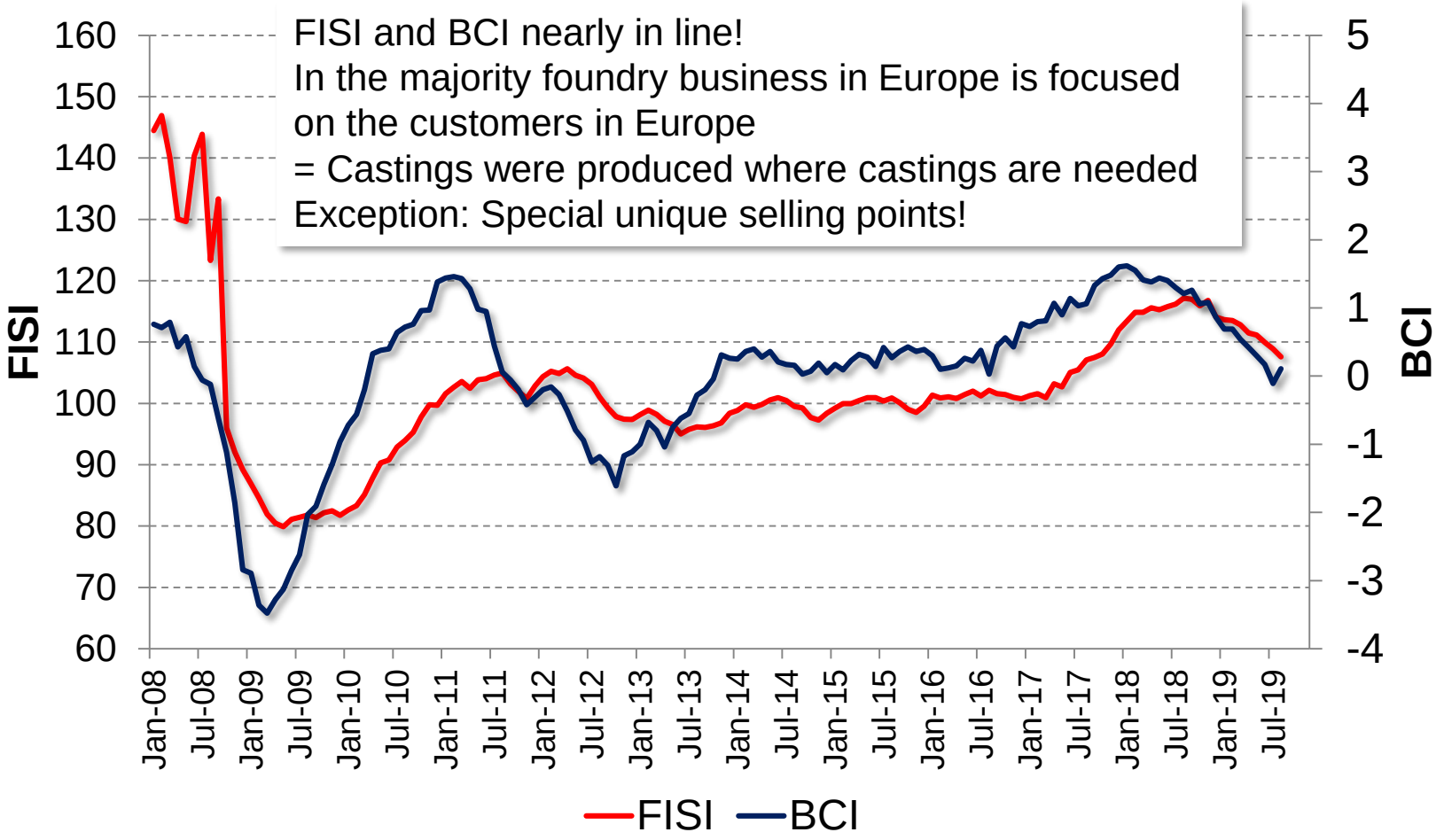
European Foundry Industry Sentiment Indicator (FISI) and Business Climate Indicator Euro Area (BCI)



Source:
FISI: CAEF, Index 2015=100, country weight based on production 2017
BCI: Eurostat, calculation CAEF

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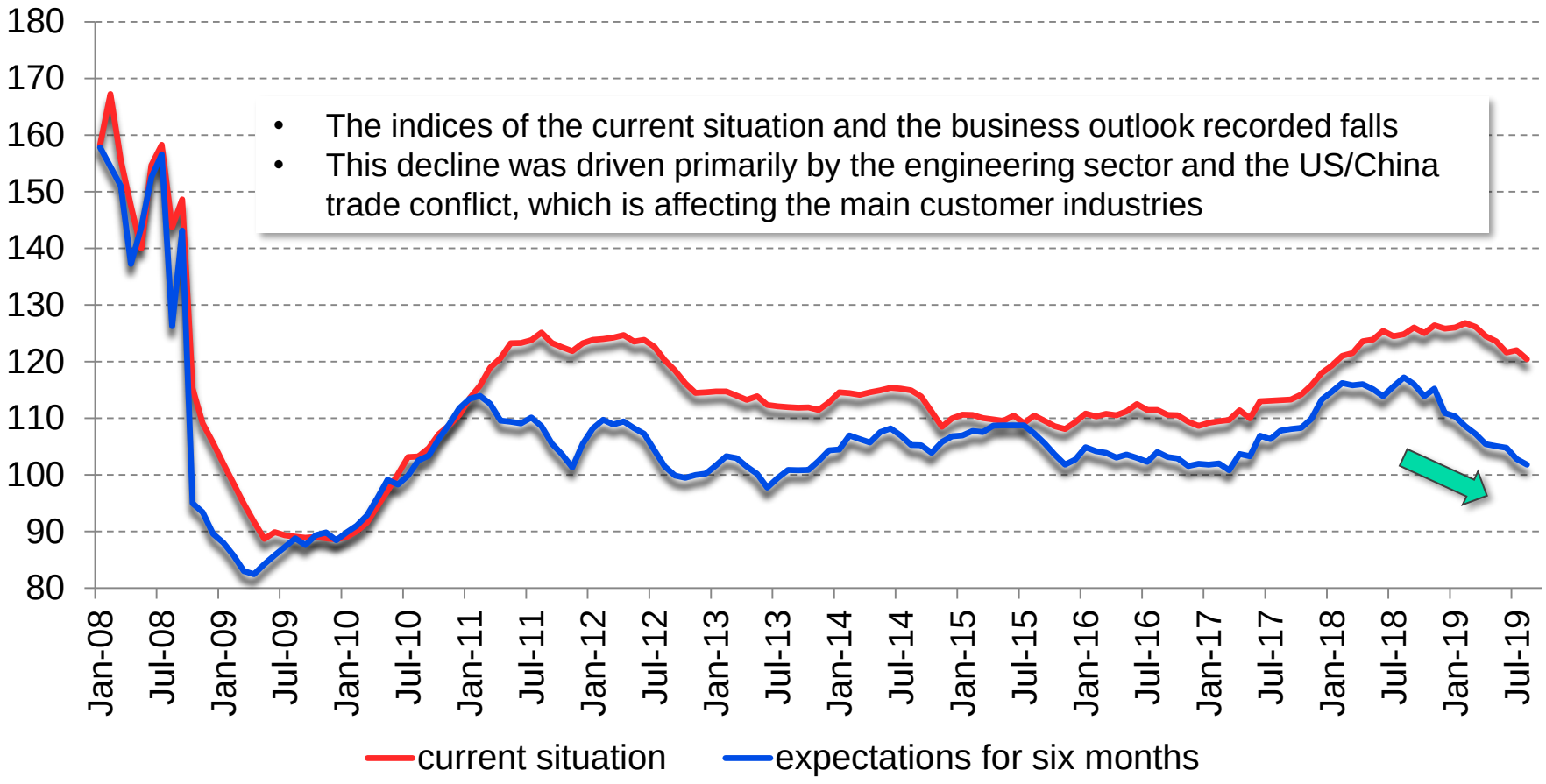
FISI – European Foundry Industry Sentiment Indicator August 2019
Ferrous Castings



- The indices of the current situation and the business outlook recorded falls
- This decline was driven primarily by the engineering sector and the US/China trade conflict, which is affecting the main customer industries

Source CAEF, Index 2010 = 100, country weight based on production 2017

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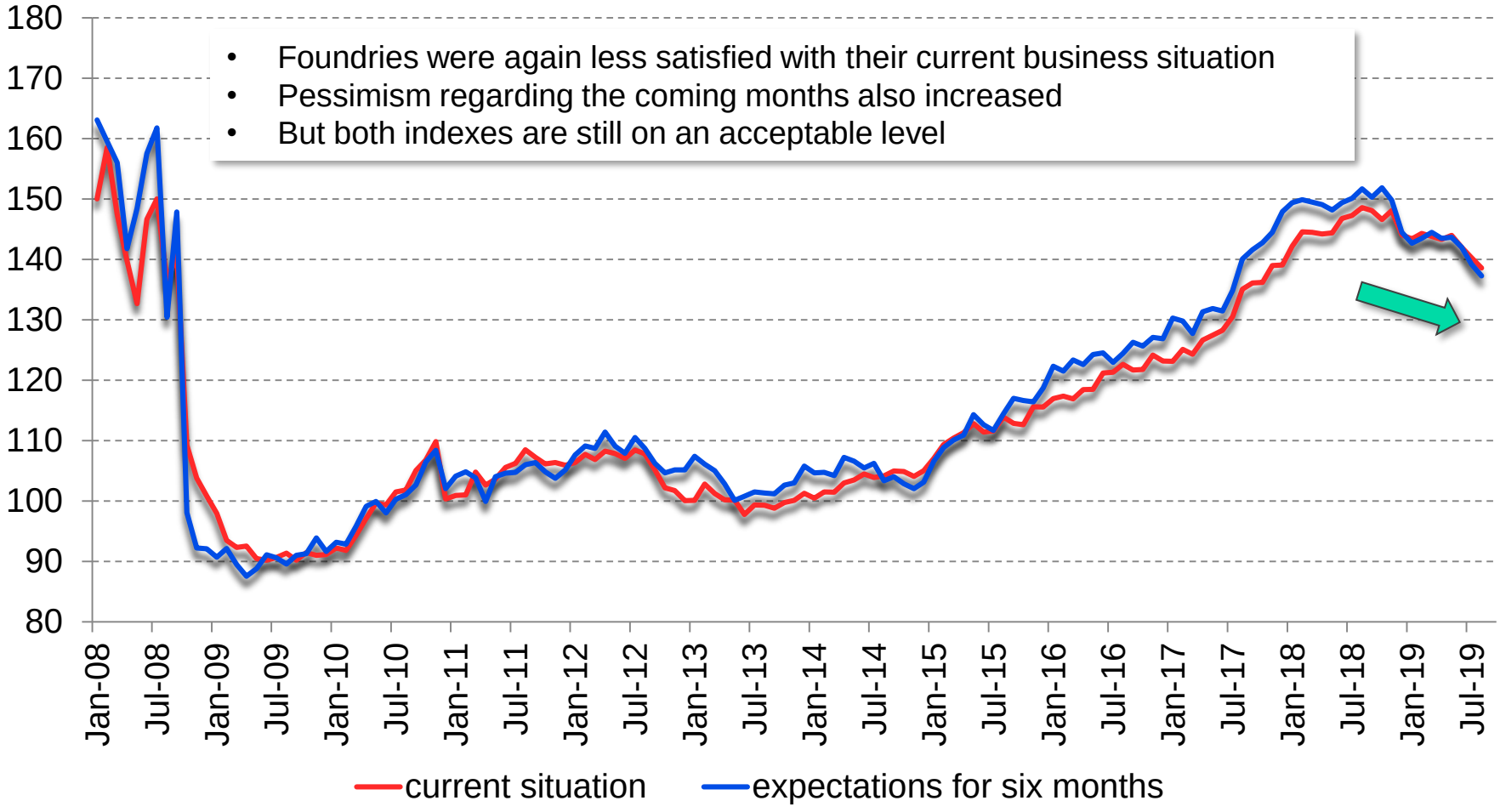
FISI – European Foundry Industry Sentiment Indicator August 2019
Non-Ferrous Castings



Source CAEF, Index 2010 = 100, country weight based on production 2017

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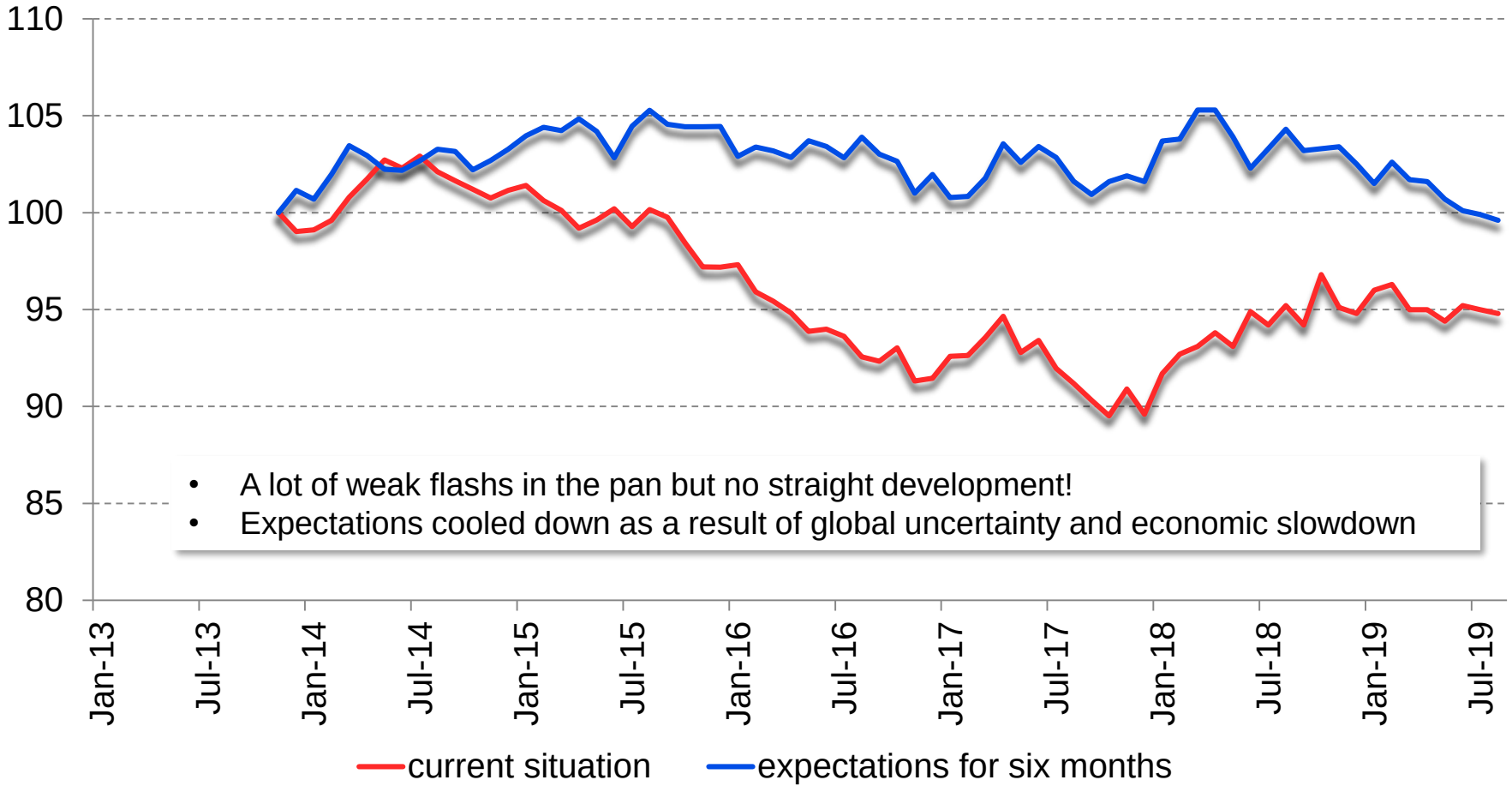
FISI – European Foundry Industry Sentiment Indicator August 2019
Steel Castings



Source CAEF, Index 2010 = 100, country weight based on production 2017

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Short Summary and Open Questions

Bild: Fotolia, Nesterov Vasily;

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Outlook I: In general

- Trade policy impulses overshadow the economic cycle
- Permanently trade conflicts delay investments
- Decisive uncertainty factors with negative potential beyond 2019:
  - Middle East
  - US/China
  - US/EU
  - Brexit
- The Brexit is (hopefully) mainly priced in
  After the last events all variants are possible again
- „All“ are directly or indirectly attached to the vehicle industry
    - Suppliers demand on whether OEMs can manage challenges such as the WLTP
    - Plant suppliers to the mechanical engineering industry are dependent on the strategic realignment of both OEMs and other suppliers
    - Robotics as an early indicator?

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Outlook II: Important for the foundry industry

- After a long-term upswing, especially in vehicle industry, the correction was overdue from 2018
- E.g. Western Europe as a production location is under pressure in vehicle industry
  Vehicle manufacturers, however, are traditionally internationally positioned
- Since 2018, in addition to the vehicle industry, mechanical enineering has also been getting into a tailspin
- Vehicle and mechanical engineering industry revised their forecasts downwards several times. These are not corrections based on cyclical effects
  The unpredictability of economic policy actors „straddles“ into the economic cycle
- 2020: A prospect of bottoming out to a slight recovery is only possible if the international actors are binding and predictable
- Mobility transformation, AI, demography, etc. have long-term effects,
  therefore, investments for strategic adjustments or reorientation must be capitalised regardless of the economic cycle

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FOUNDRY SECTOR PORTUGAL

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Sector definition

- Small and Medium size companies
- Highly exporting the output
- Located at the North of the country
- Investment last years (2016/2018: 200M€)

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Markets

- Vehicule industry
- General Engineering
- Trains
- Civil construction (Taps…)
- Others (Valves, Oil & gas, Decoration…)

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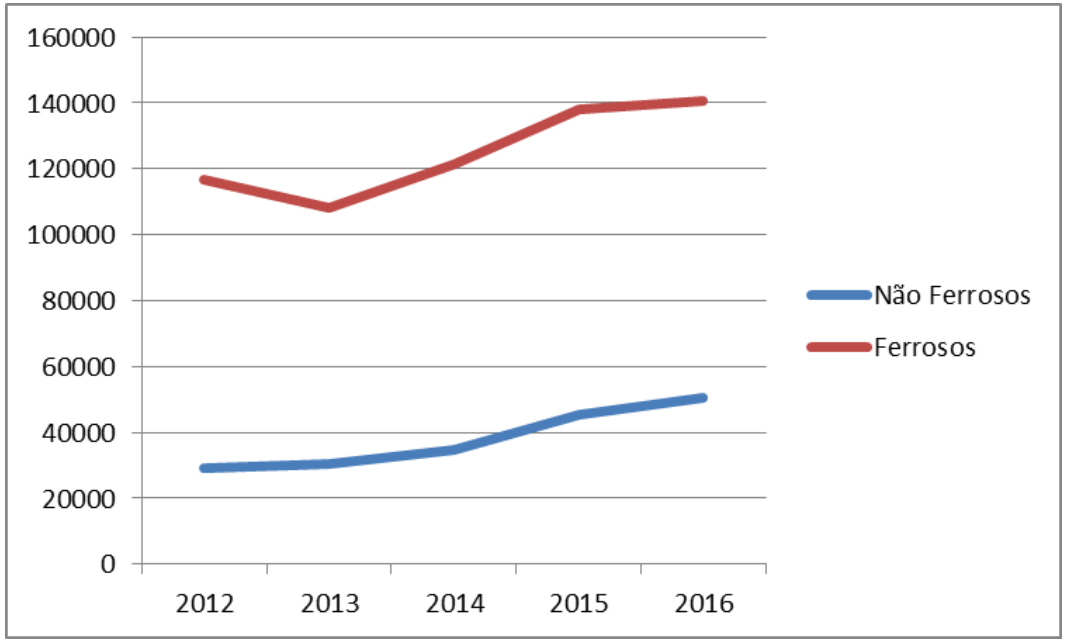
Ferrous and Non Ferrous Production



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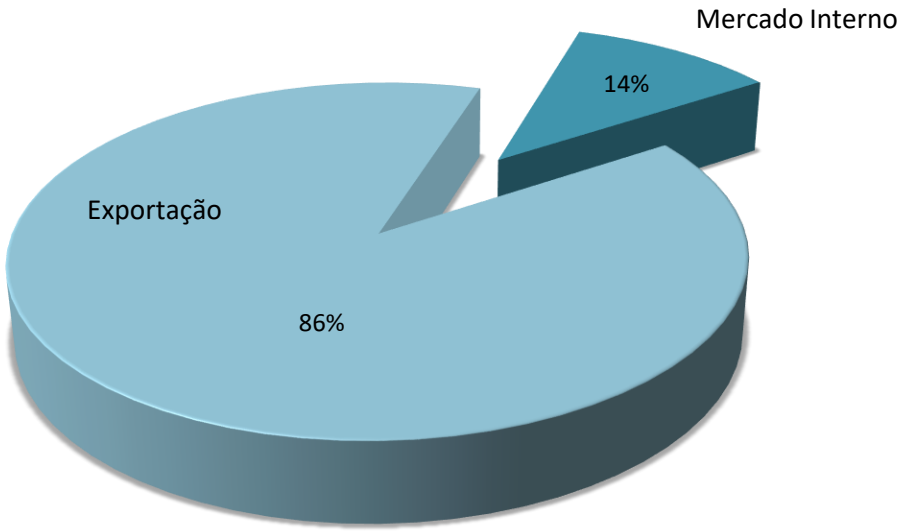
Ferrous castings destination



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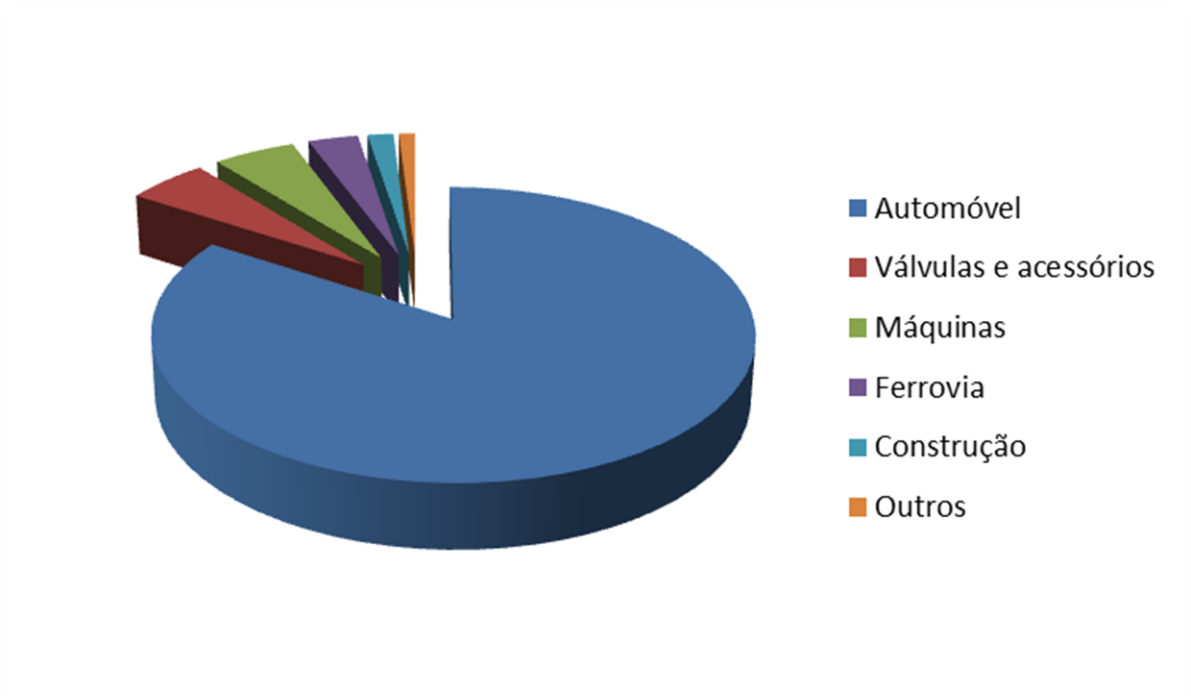
Ferrous castings markets



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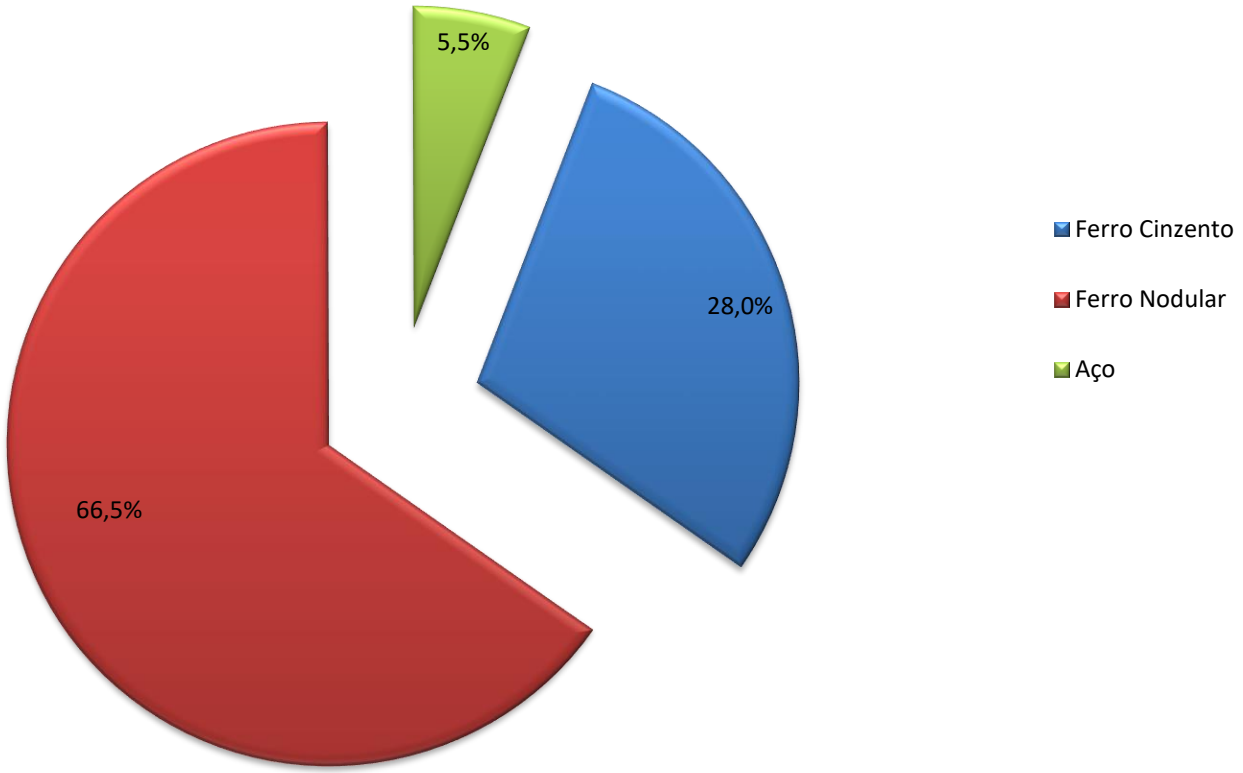
Ferrous castings alloy



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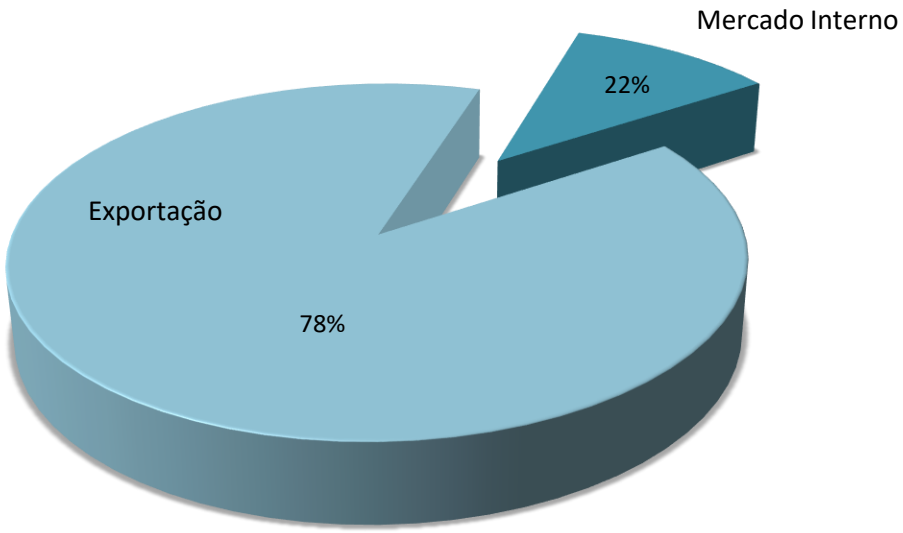
Non Ferrous castings destination



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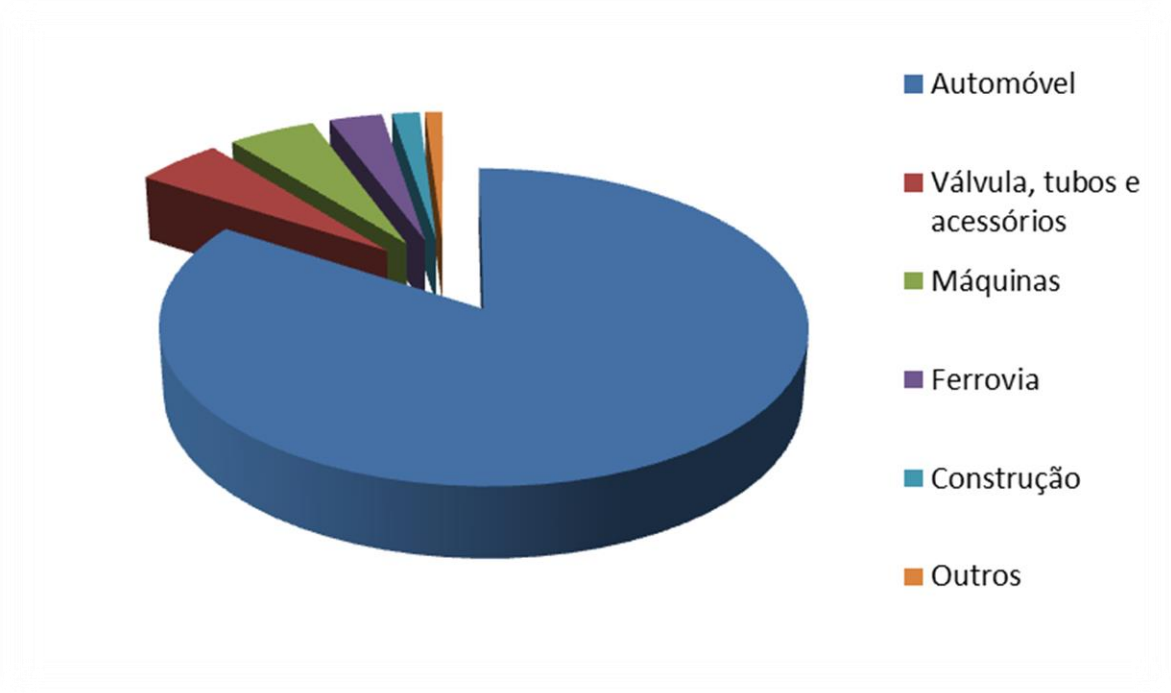
Non Ferrous castings markets



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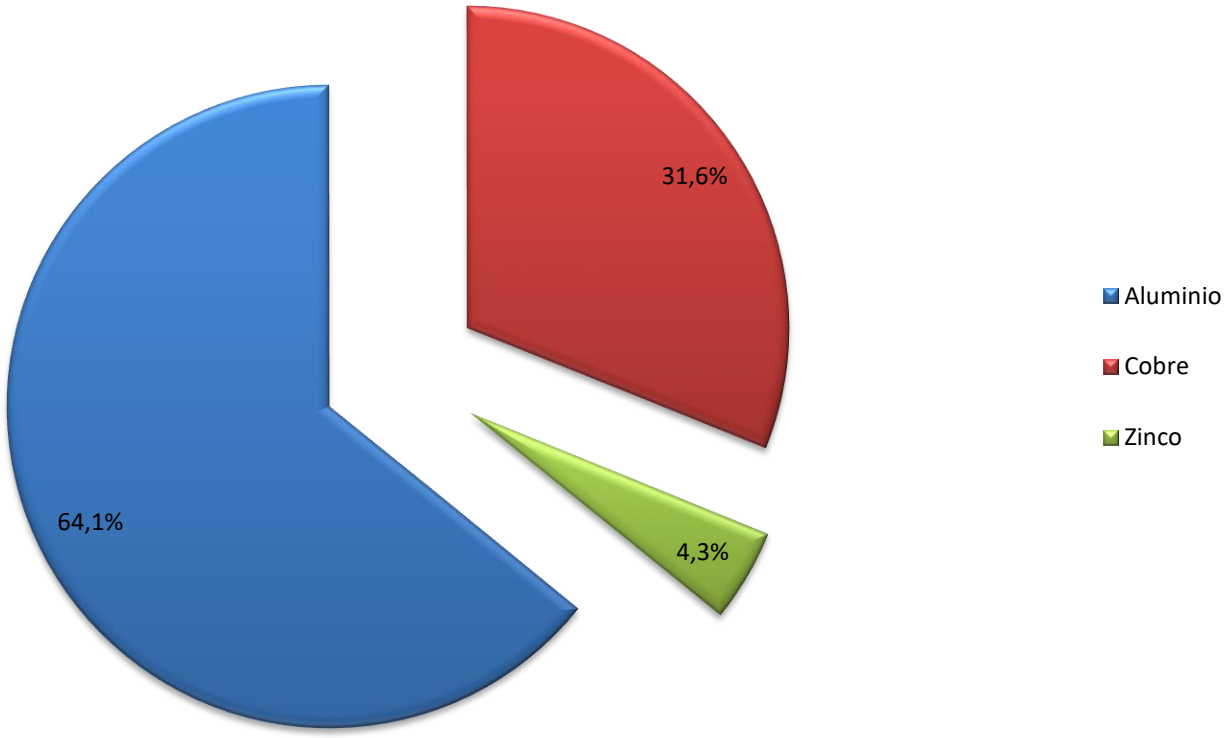
Non Ferrous castings alloy



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CINFU

A strategical partner for the foundry industry

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CINFU

- A Training Center
- Mission: the qualifying of the foundry human resources and the availability of technical services

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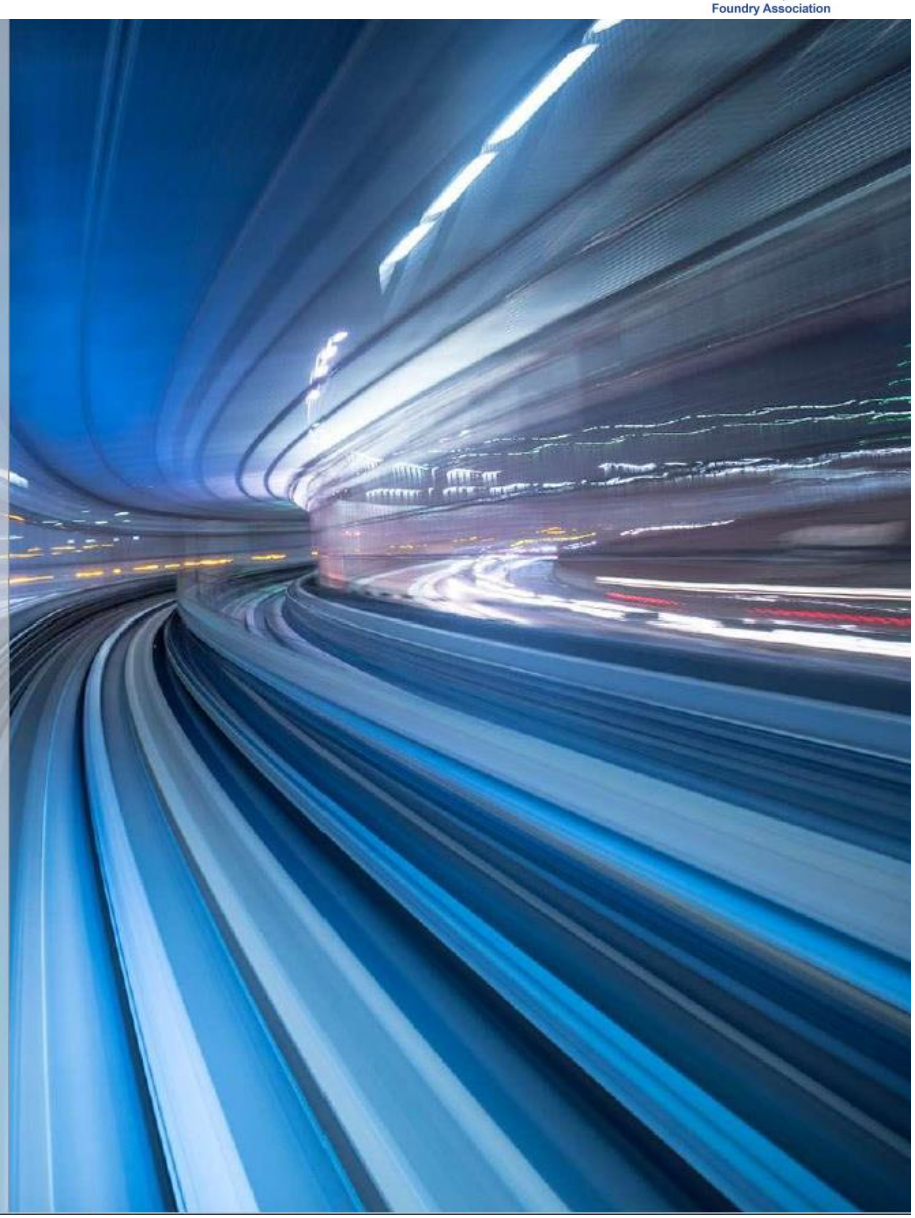
Recomend study



Global Automotive Supplier Study 2019

After years of excellent growth, the market environment is getting difficult

LAZARD

Roland Berger

August 2019

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THANK YOU

9th INTERNATIONAL BRICS FOUNDRY FORUM

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