



CAEF

The European Foundry Association

CAEF General Engineering Section Meeting

Düsseldorf

22 March 2017

Verhalten im Brandfall / bei Unfällen

Ruhe bewahren!

- Menschen retten, gefährdete Personen warnen
- Erste Hilfe leisten, Unfallstelle absichern
- Hilfe herbeiholen – Ersthelfer Tel. 555
- Feuer / Unfall melden **0-112**

1 **Wer** meldet?

2 **Wo** brennt es / ist der Unfall geschehen?

3 **Was** brennt / ist geschehen?

4 **Wie viele** Verletzte, Art der Verletzung?

5 **Warten** auf Rückfragen!



- Feuer bekämpfen, Feuerlöscher einsetzen OHNE sich oder Andere zu gefährden



- In Sicherheit bringen, Türen und Fenster schließen, Fluchtwegen folgen, keine Aufzüge benutzen



- Sammelplatz: Wiese neben Hofeinfahrt aufsuchen
- Informieren Sie sich über die Flucht- und Rettungswege und die Feuerlöscher!

Verbandskasten: 

Sanitätsraum (neben Haupteingang)

Defibrillator:

Flur neben Empfang

**Smoking Area is located at the back of the Building
Please follow the Signs:**



Purpose of our meeting

Please take note of the CAEF
antitrust compliance guideline

- Information exchange
- Discussion of economic situation
- Raw materials
- Energy
- Technical issues
- Etc.
- Non-topics for our meetings:
 - Prices
 - Quotas
 - Concrete customer relationships
 - Any measures with indirect effect on the topics mentioned above
 - Statistics have to respect these issues
- Almost no problem:
 - Purchasing subjects
 - Raw materials statistics
 - Anonymous benchmark surveys

Current market situation (General aspects)

The statements may not be linked to a concrete product or customer

- General statements on e.g. the following topics:
 - Production volumes / Orders in stock
 - Cancellation of orders
 - Raw materials availability
 - Status and development of energy price
 - Planned investments
 - Mid-term perspectives of production

O:\BDG\CAEF\Competition law slides.pptx

Agenda

1. Welcome
2. Industry 4.0 – “Kurtz Eisenguss – Smart foundry” presentation by Matthias Hofmann, Kurtz Ersä
3. General economic situation - Statement by Heiko Lickfett
4. Any other business
5. Date and venue of the next meeting

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Future Trend: Smart Foundry

Smart Production needs Smart Castings

- Black Magic vs Smart Foundry
- Equipment interactive connected
- Data mining
- Improvement and stabilisation of all processes
- Leads to maximized efficiency
Energy and Material
Flexibility, Speed
etc.
- That's all?

**PRODUCTION
MANAGEMENT**

**PRODUCTIVITY
ANALYSIS**

**CODING AND
TRACEABILITY**

Agenda

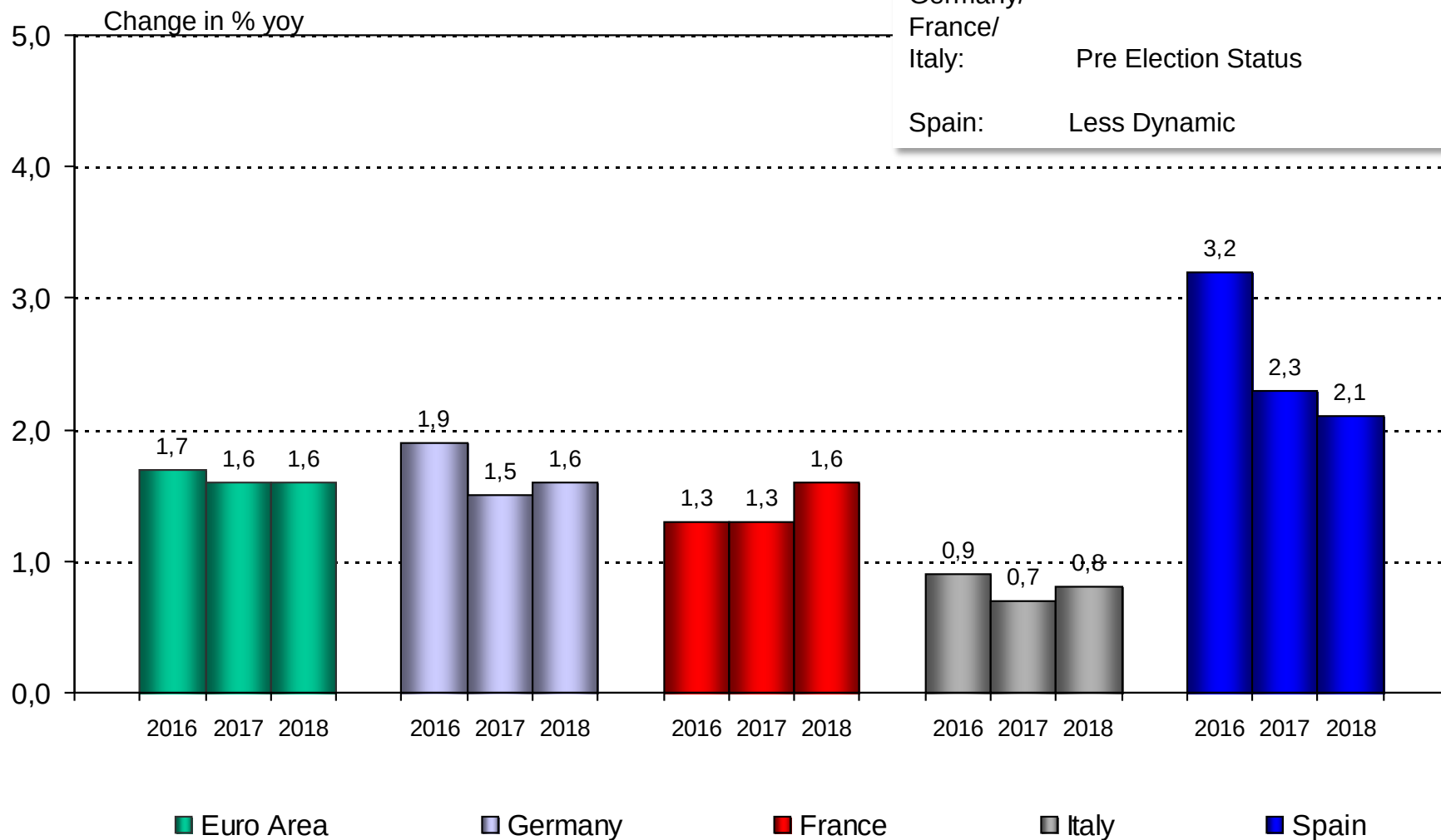
1. Welcome
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Economy and Key Indicators Background for Foundry Business



Bild: Fotolia

World Economic Outlook 2016-2018



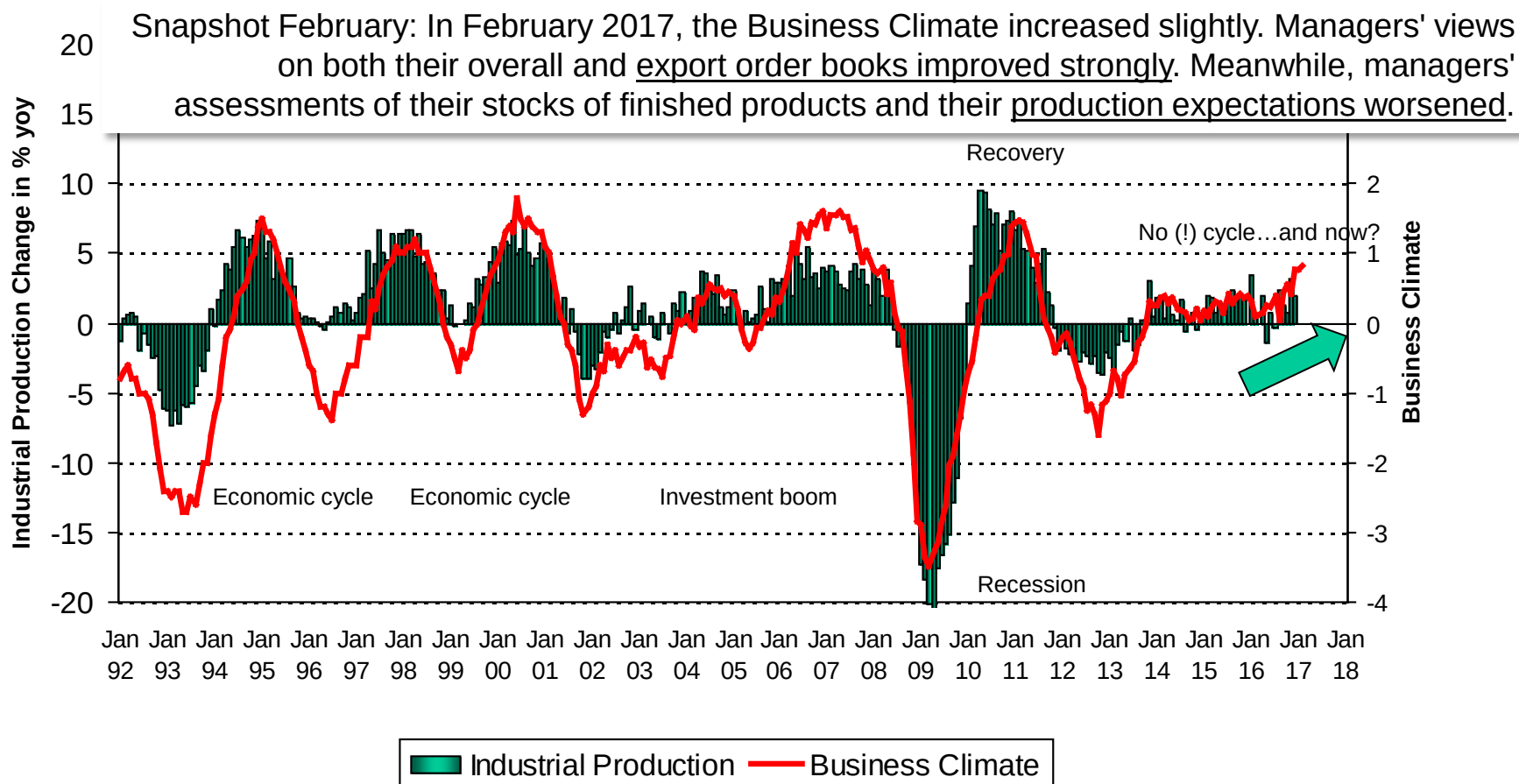
Euro: underrated for Germany/
overrated for South of Europe

Germany/
France/
Italy: Pre Election Status

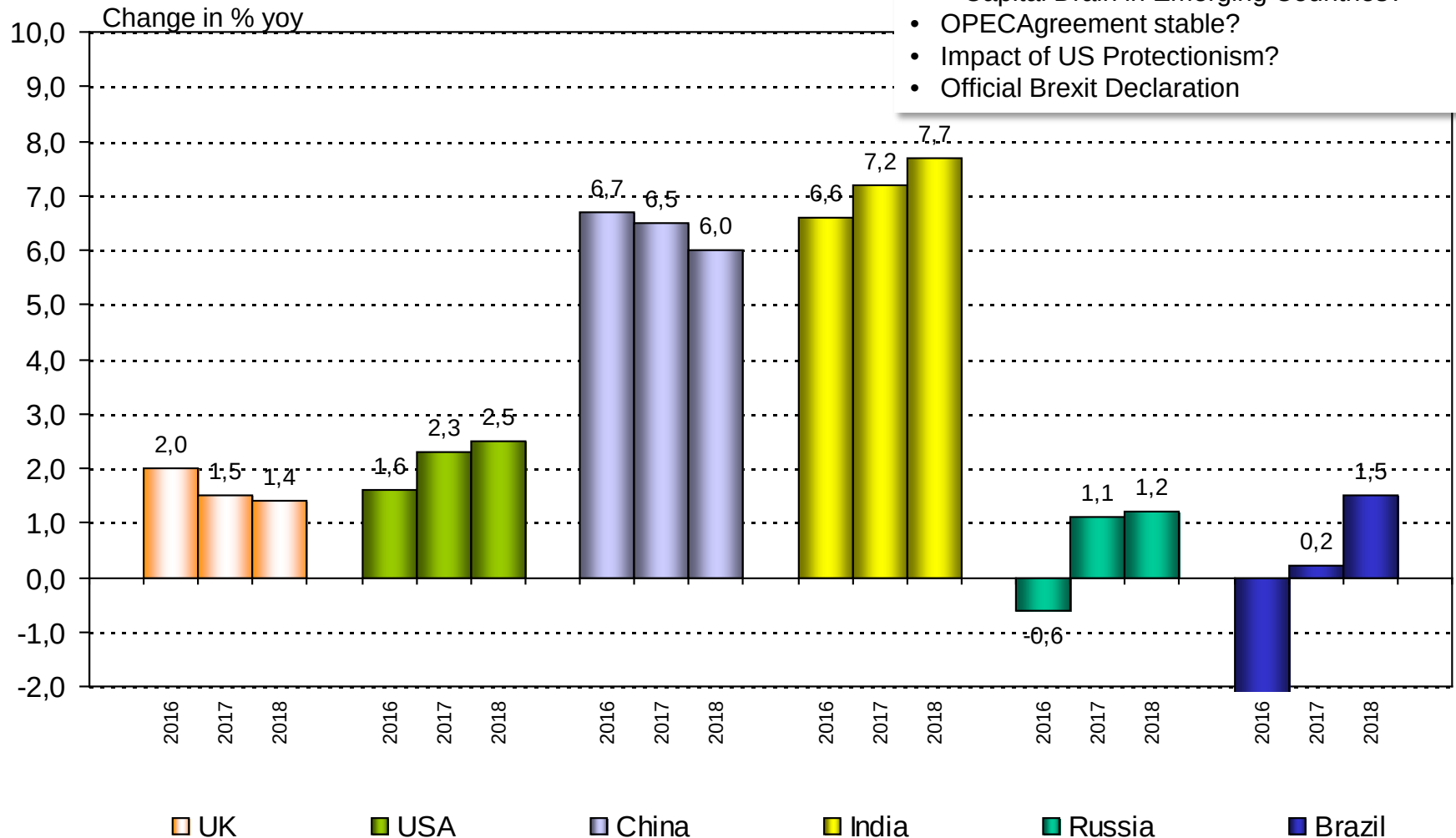
Spain: Less Dynamic

Euro Area Business Climate Indicator February 2017

Different signals!

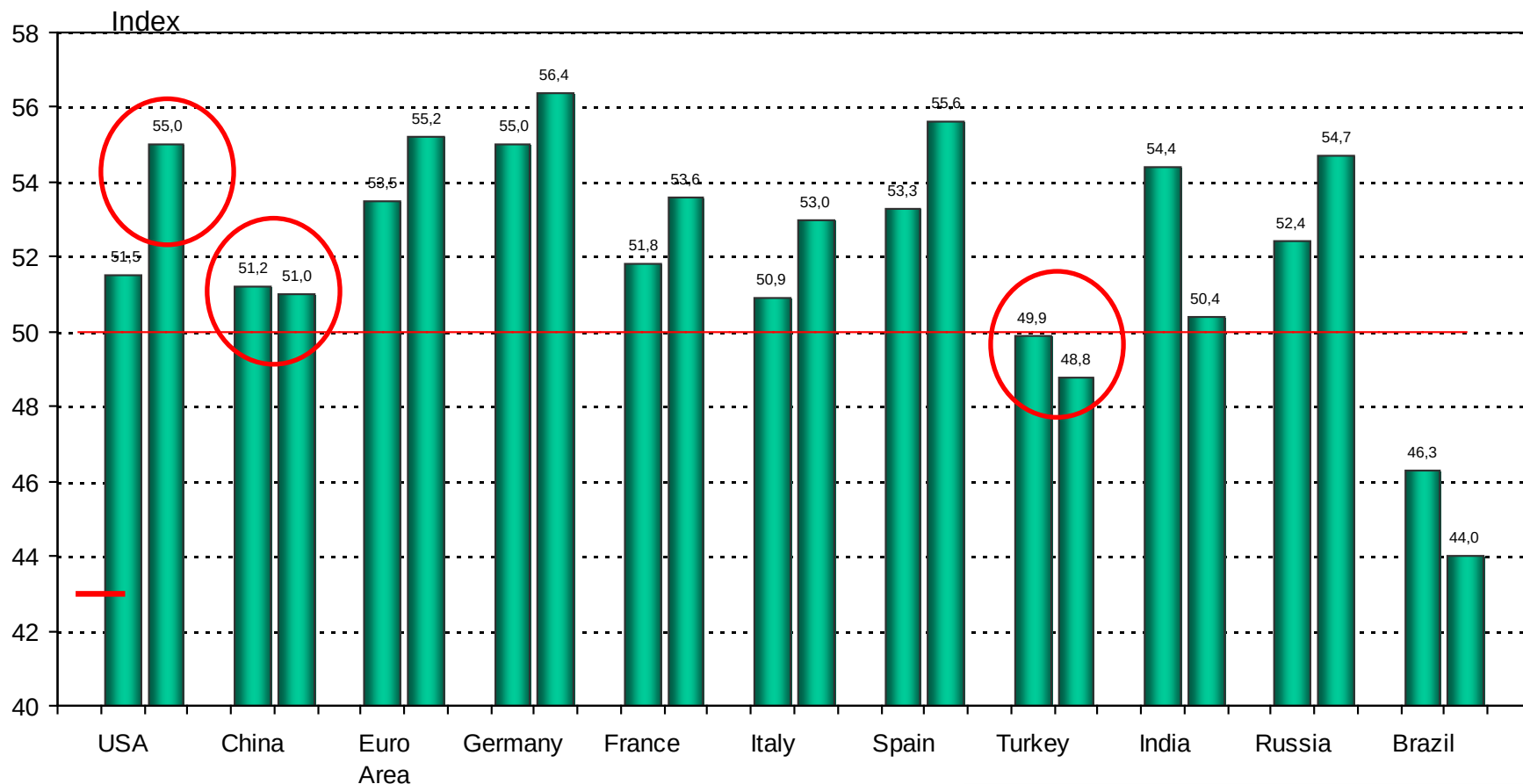


World Economic Outlook – 2016-2018



Source: IMF, January 2017

Selected Countries Manufacturing Purchasing Manager Index (PMI) October 2016 – January 2017



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

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

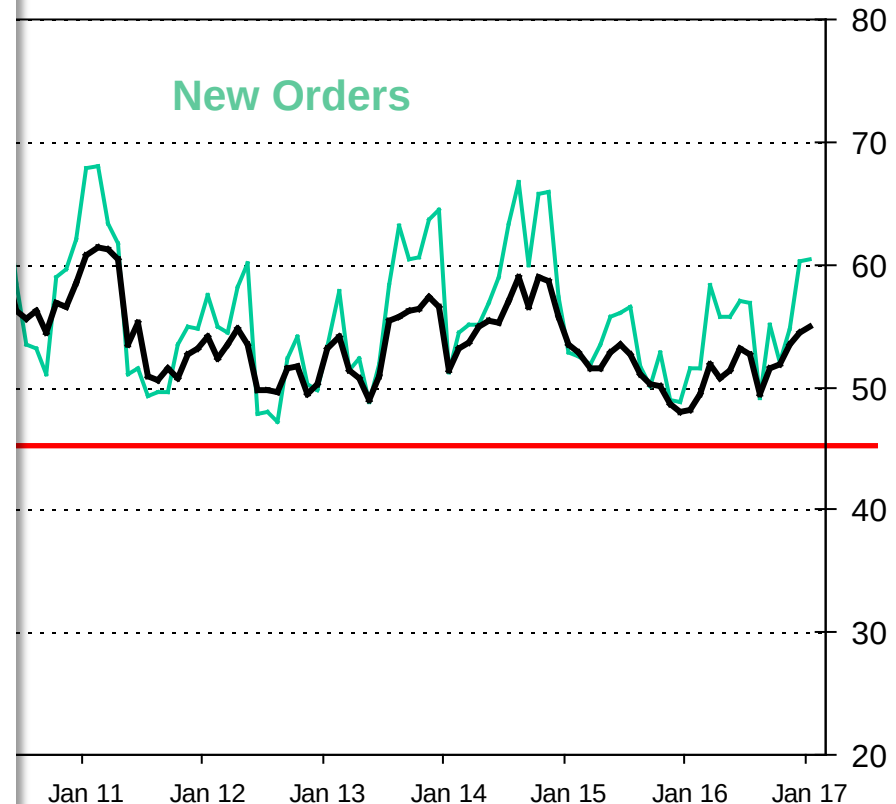
Euphoric Mood on the one Hand...

USA Purchasing Manager Index (PMI) January 2017 „Trump-Impact“!

Difference to other PMI because of the higher share of private consumption:
Index above 43 points = expansion of the overall economy

Comments from the panel:

- “Strong! Production is increasing and we are adding capacity.” (Plastics & Rubber Products)
- “Business looks stronger moving into the first quarter of 2017.” (Primary Metals)
- “Sales bookings are exceeding expectations. We are starting to see supply shortages in hot rolled steel due to the curtailment of imports.” (Machinery)
- “Business conditions are good, demand is generally increasing.” (Miscellaneous Manufacturing)
- “Conditions and outlook remain positive. Asset utilization remains high.” (Petroleum & Coal Products)
 - “Steady demand from automotive.” (Fabricated Metal Products)



Quelle: Institute for Supply Management™ (ISM), USA PMI works with a corresponding level of ca. 43 %!

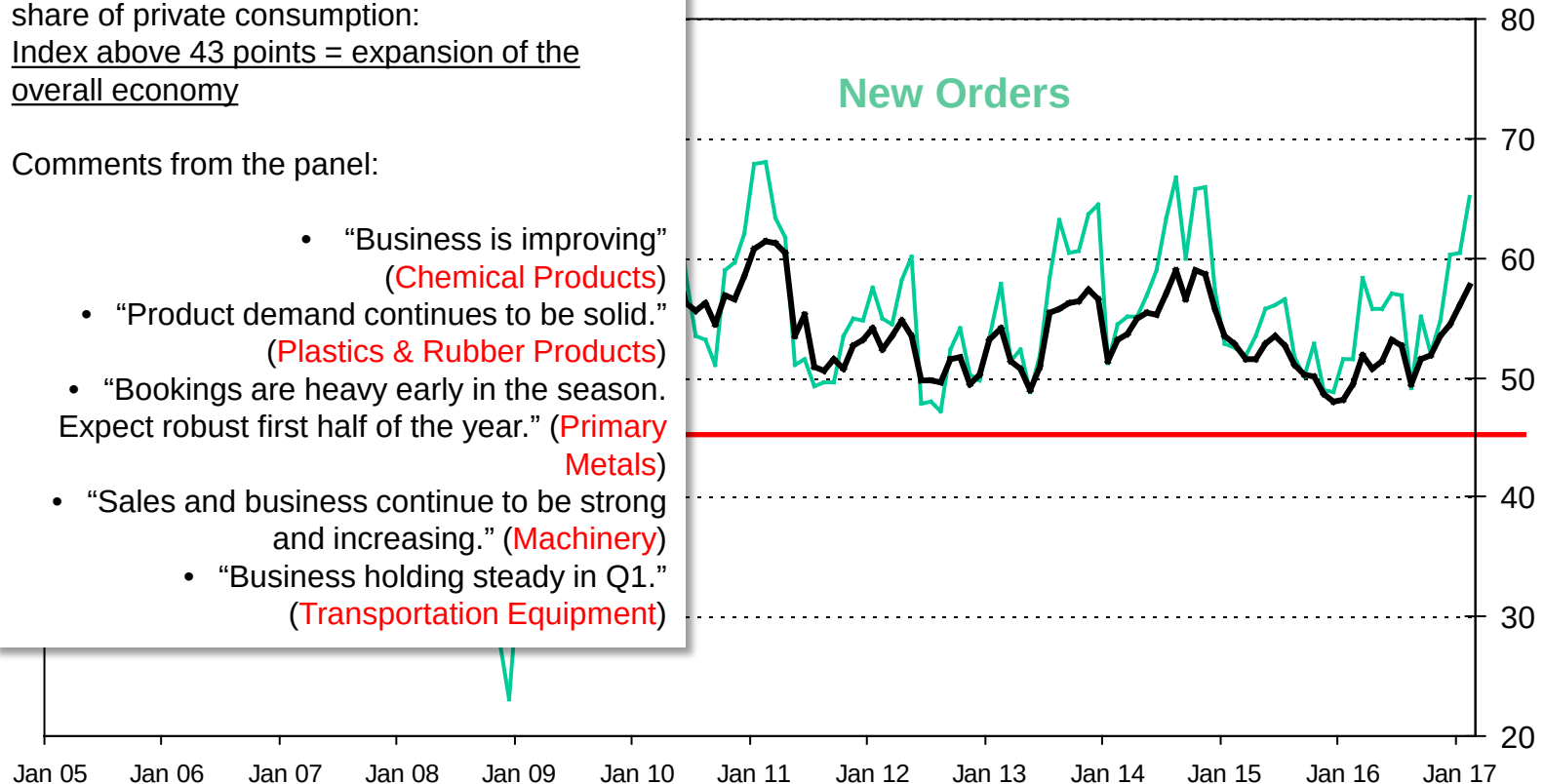
USA Purchasing Manager Index (PMI) February 2017

„Trump-Impact – no fleeting star“?

Difference to other PMI because of the higher share of private consumption:
Index above 43 points = expansion of the overall economy

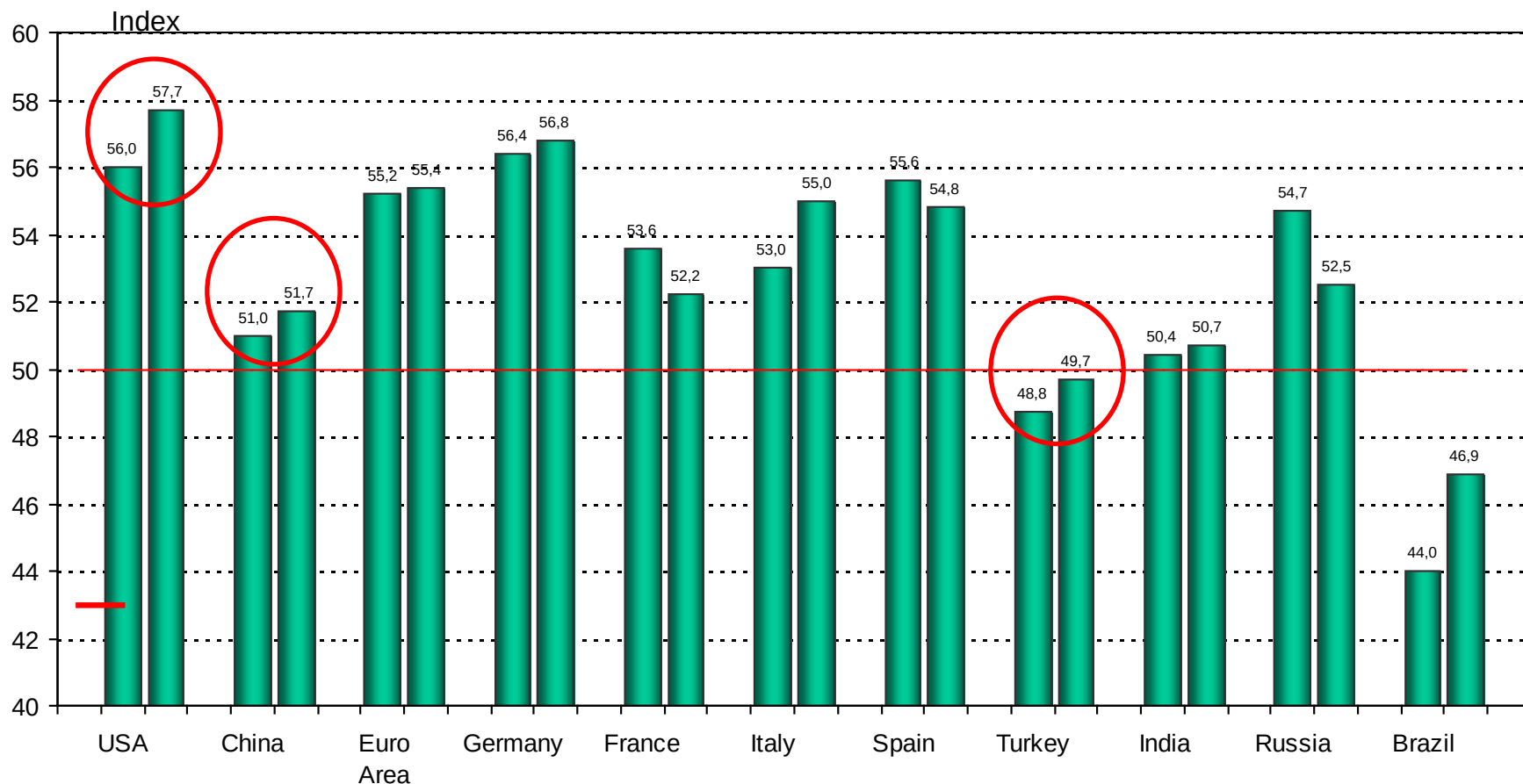
Comments from the panel:

- “Business is improving”
 (Chemical Products)
- “Product demand continues to be solid.”
 (Plastics & Rubber Products)
- “Bookings are heavy early in the season. Expect robust first half of the year.”
 (Primary Metals)
- “Sales and business continue to be strong and increasing.”
 (Machinery)
- “Business holding steady in Q1.”
 (Transportation Equipment)



Quelle: Institute for Supply Management™ (ISM), USA PMI works with a corresponding level of ca. 43 %!

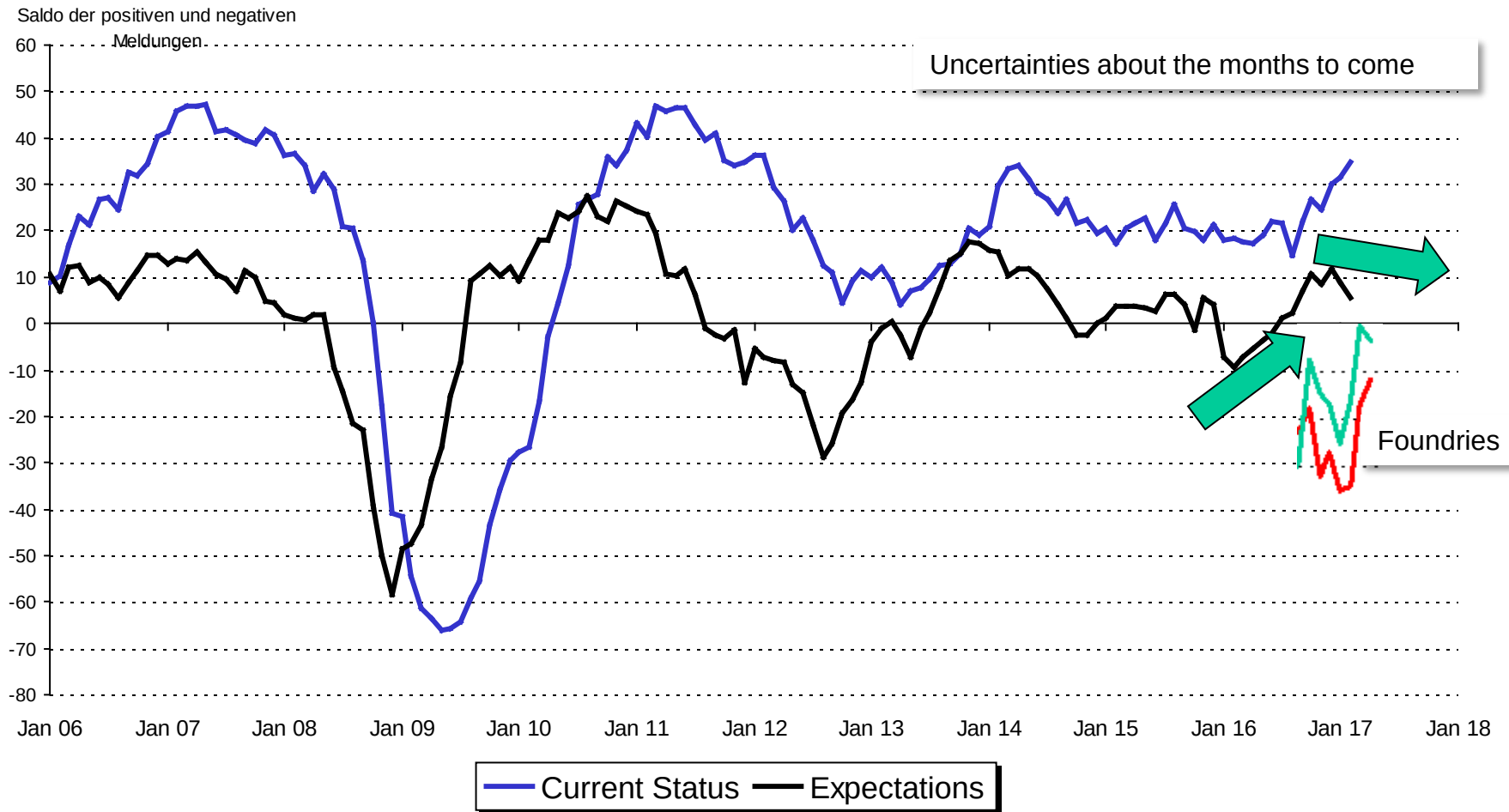
Selected Countries Manufacturing Purchasing Manager Index (PMI) January 2017 – February 2017



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

Feelings of Insecurity on the other Hand...

Business Climate Germany Industrial Supplier February 2017



Source: Ifo München, ArGeZ Arbeitsgemeinschaft Zulieferindustrie
Saisonbereinigt, Saldo aus positiven und negativen Bewertungen,

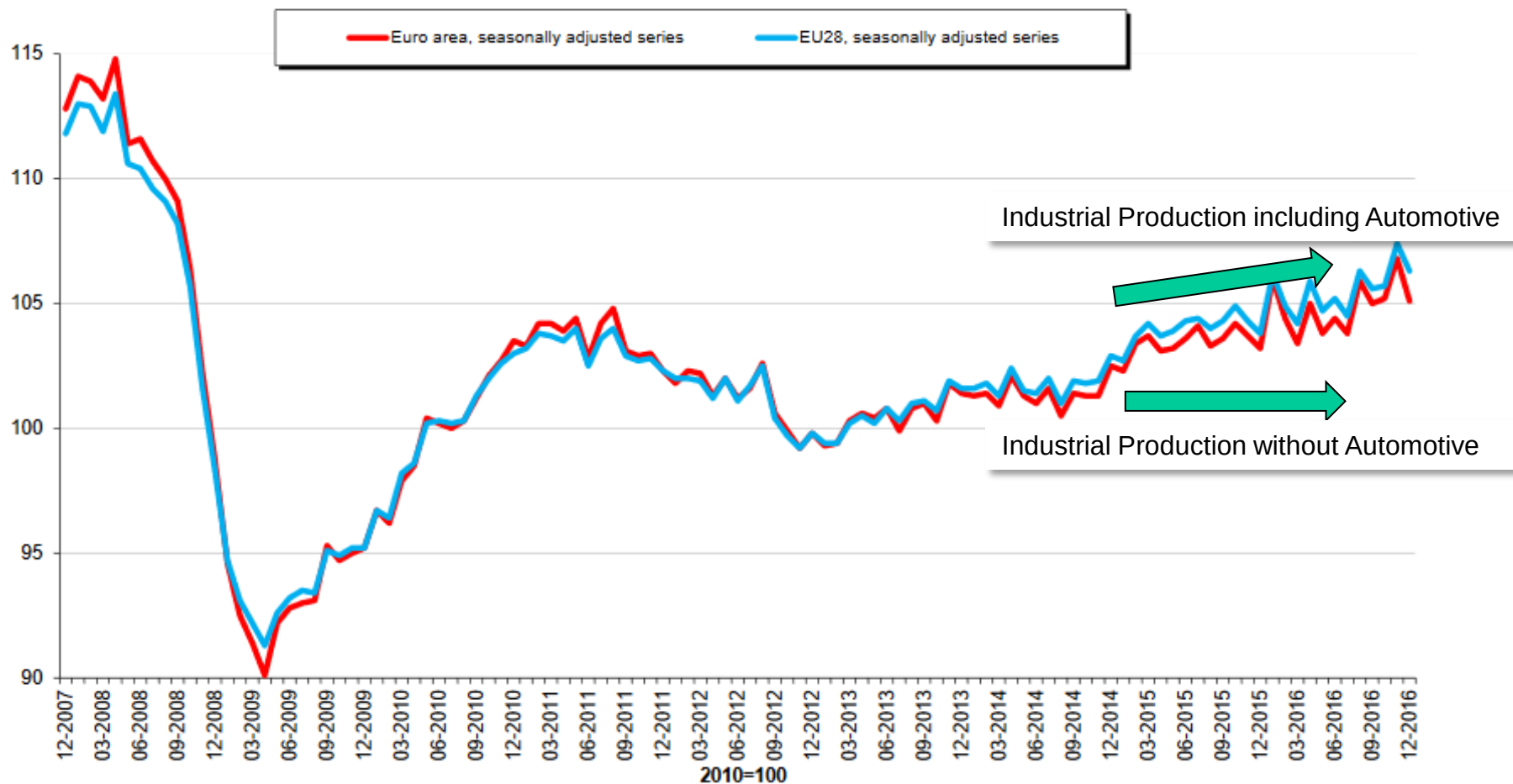
Main Customer Industries – current status



Bild: Siemens

Industrial Production EU December 2016

Industrial production



Source: Eurostat

Passenger Cars Sales (not! Production) 2016

	Dezember 2016		Januar - Dezember 2016	
	Anzahl	Veränderung 16/15 in %	Anzahl	Veränderung 16/15 in %
Europa (EU28+EFTA)*	1.193.300	3,2	15.131.700	6,5
Europäische Union (EU-28)*	1.143.700	3,0	14.641.400	6,8
Westeuropa (EU15+EFTA)	1.084.900	2,0	13.971.500	5,8
Neue EU-Länder (EU13)*	108.400	16,3	1.160.300	15,9
Russland**	145.700	-1,0	1.425.800	-11,0
USA**	1.679.500	3,0	17.465.000	0,4
Japan	332.800	8,1	4.146.500	-1,6
Brasilien**	199.200	-9,8	1.988.600	-19,8
Indien	227.800	-1,4	2.966.600	7,0
China	2.610.100	10,7	23.693.400	17,8

* ohne Malta

** Light Vehicles

China: VAT Supportprogram for small cars with max.1.6 l engines
Europe: Recovery, but limited volume
Russia: Chance for bottom out?
Brazil: Recession

Source: VDA

Passenger Cars Sales (not! Production) Feb 2017

	Februar 2017		Januar - Februar 2017	
	Anzahl	Veränderung 16/15 in %	Anzahl	Veränderung 16/15 in %
Europa (EU28+EFTA)*	1.114.400	2,1	2.317.700	6,1
Europäische Union (EU-28)*	1.078.500	2,2	2.248.000	6,2
Westeuropa (EU15+EFTA)	1.015.400	0,9	2.124.300	5,2
Neue EU-Länder (EU13)*	99.000	15,9	193.400	16,1
Russland**	106.700	-4,1	184.600	-4,5
USA**	1.325.900	-1,1	2.463.500	-1,4
Japan	413.300	8,2	756.700	6,4
Brasilien**	132.600	-6,8	276.400	-5,4
Indien	255.400	9,0	520.700	11,7
China***	1.589.700	20,5	3.756.900	7,6

* ohne Malta

** Light Vehicle

*** vorläufige [

USA: in the red

China: VAT Supportprogram reduced but active

Europe: Recovery, but limited volume

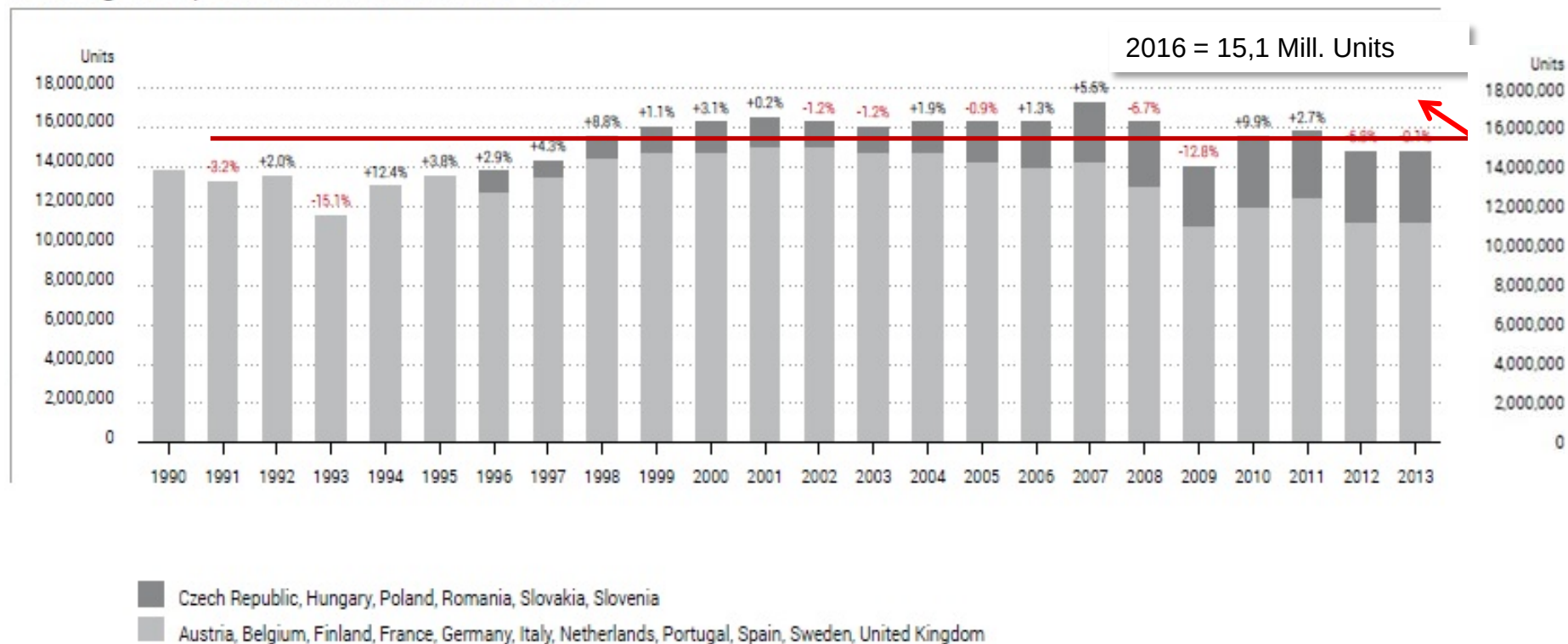
Russia: Chance for bottom out?

Brazil: Recession

Source: VDA

Market Limitations – Passenger Cars Production in der EU 1990-2013

Passenger car production in the EU | 1990 – 2013



Global Passenger Cars Sales and Production Forecast 2017

Reduced Dynamic

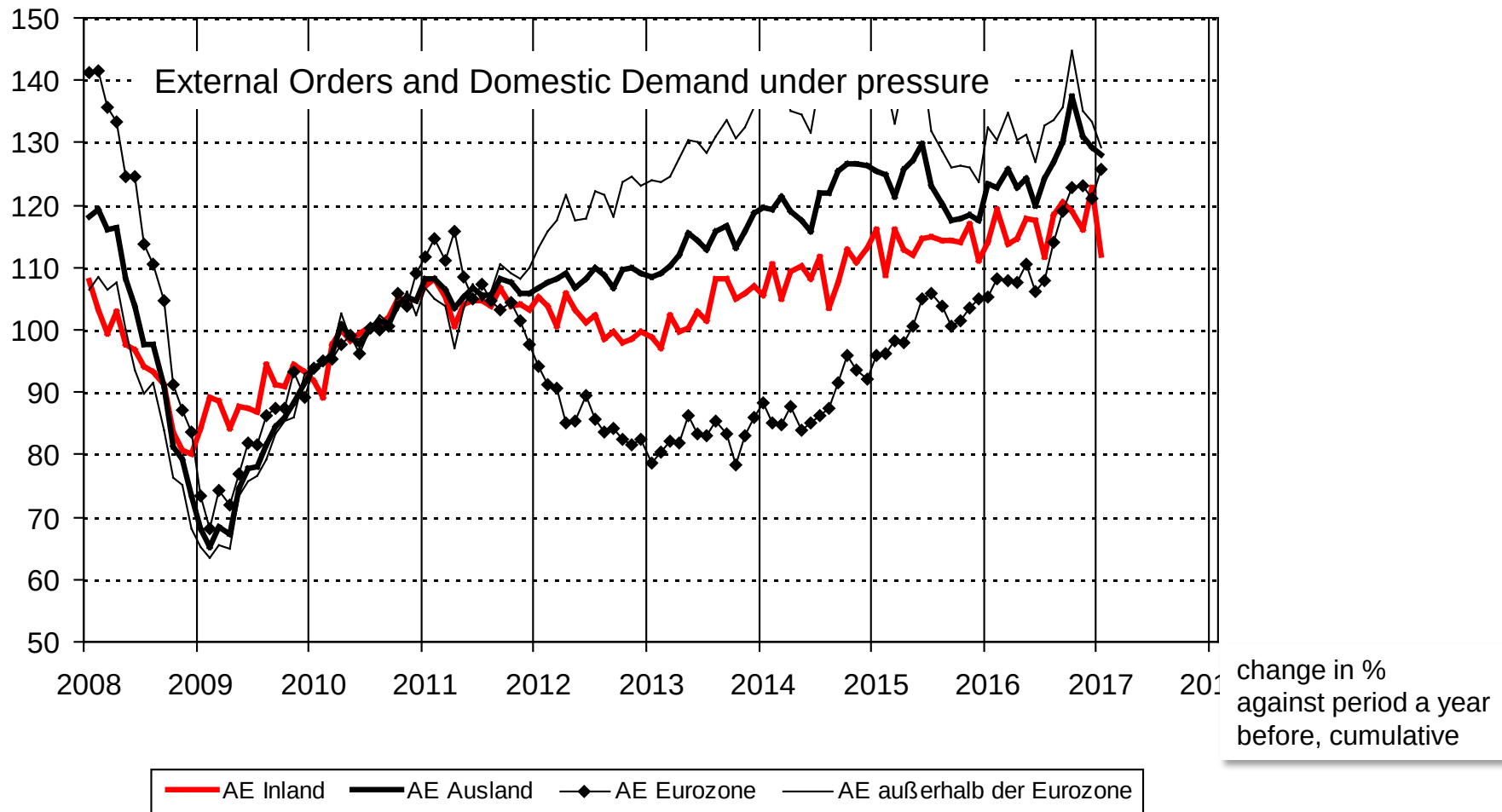
Region	Sales 2017	Production 2017
World	+ 2-3%	+ 2-3%
USA	± 0%	- 1%
China	+ 5%	+ 5%
W-Europe	+ 1%	± 0%
New EU Countries	+ 6%	± 0%
Germany	± 0%	- 2%
France	+ 2%	+ 3%
UK	- 6%	± 0%
Spain	+ 7%	± 0%
Italy	+ 7%	+ 2%
Russia	+ 5%	+ 5%
Turkey	- 6%	+ 2%
Brazil	± 0%	+ 2%
Japan	+ 1%	± 0%



Source: VDA, February 2017

Picture: Fotolia

Incoming Orders (IO) Vehicle Industry Germany January 2017



Source: Stat. BA, Index 2010=100, seasonal adjusted, calculation BDG

General Engineering – Light and Shadow close together

2016 Stagnation, Forecast 2017: only plus 1 %

picture: MS

40 branches

roundabout 20 identified as
castings intensive

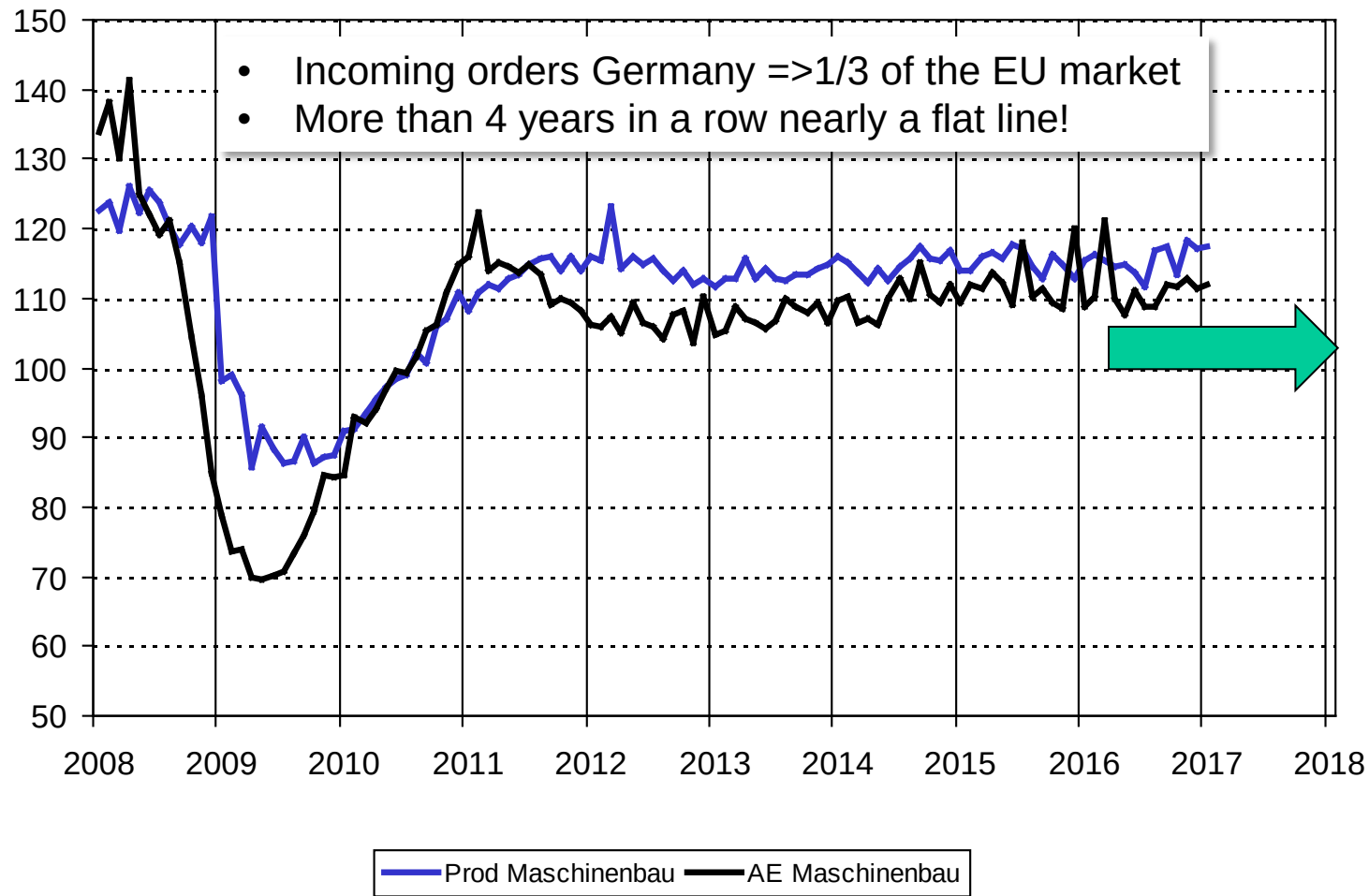
e.g.

- Machine Tool Industry
- Hydraulics and Pneumatics
- Agricultural Machinery
- Metallurgical Plants and Rolling Mills
- E.g. Incoming orders for Germany:



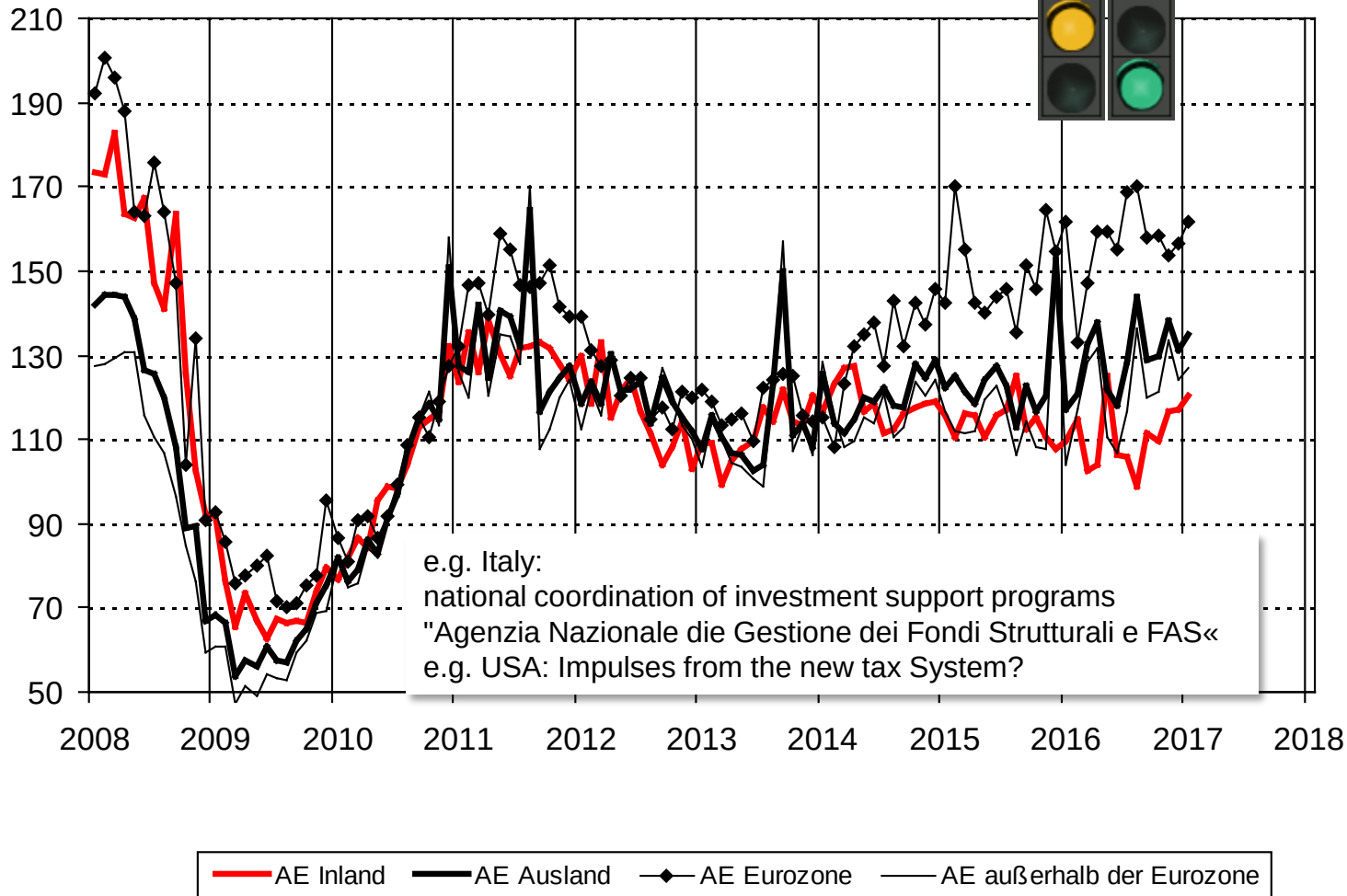
Zeitraum	Inland	Ausland	EURO	Nicht-EURO	Gesamt
Dez. 2015	-5	17	5	20	11
Okt.-Dez. 2015	0	10	21	7	7
Jan.-Dez. 2015	1	1	15	-3	1
Zeitraum	Inland	Ausland	EURO	Nicht-EURO	Gesamt
Dezember 2016	7	-22	6	-29	-15
Okt.-Dez. 2016	4	-12	-11	-13	-8
Jan.-Dez. 2016	-1	-3	-8	-1	-2

Incoming Orders (IO) General Engineering Germany January 2017



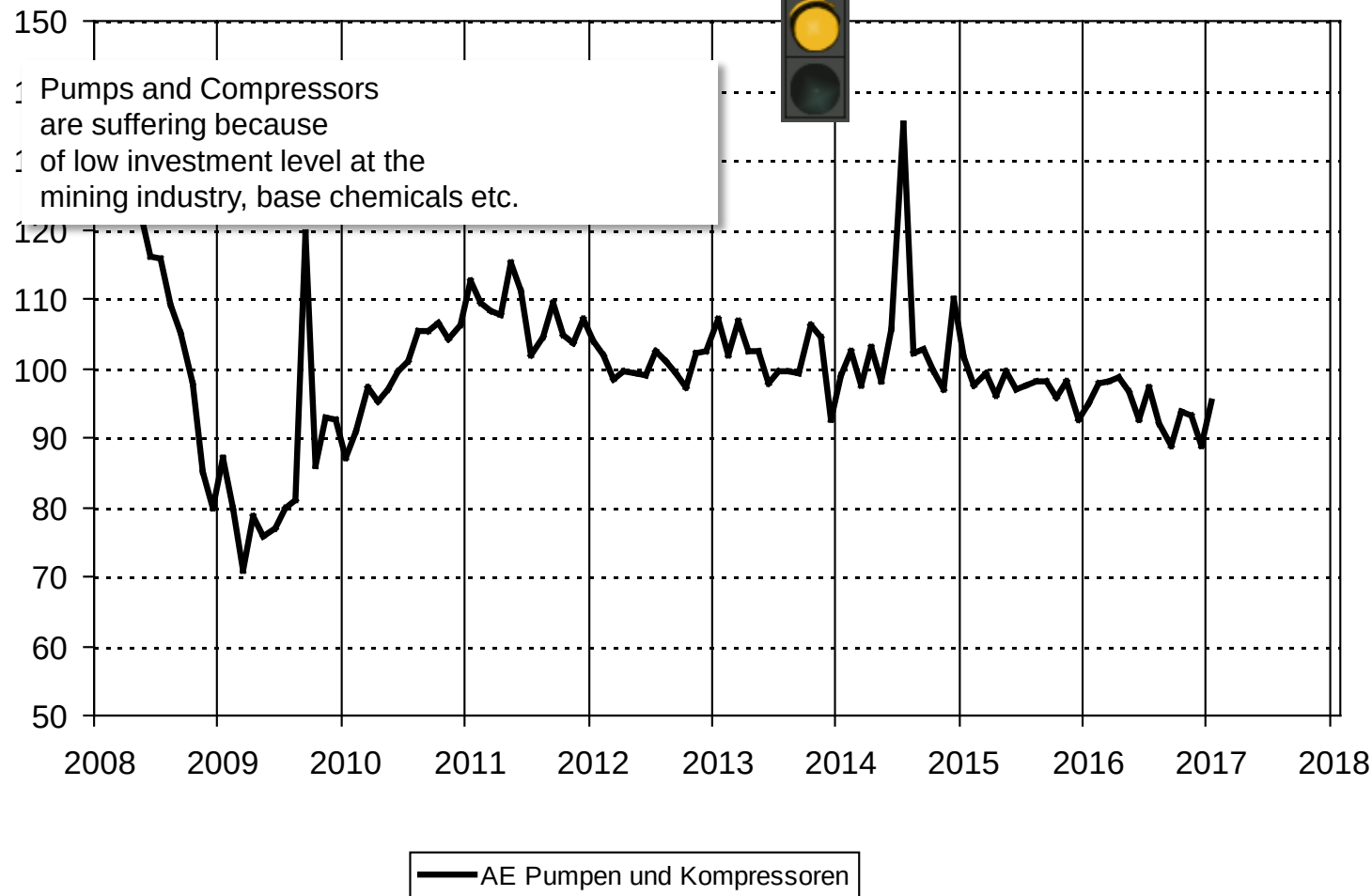
Source: Stat. BA, Index 2010=100, calendar- and seasonally adjusted, calculation BDG

Incoming Orders (IO) Tool Machine Industry Germany January 2017



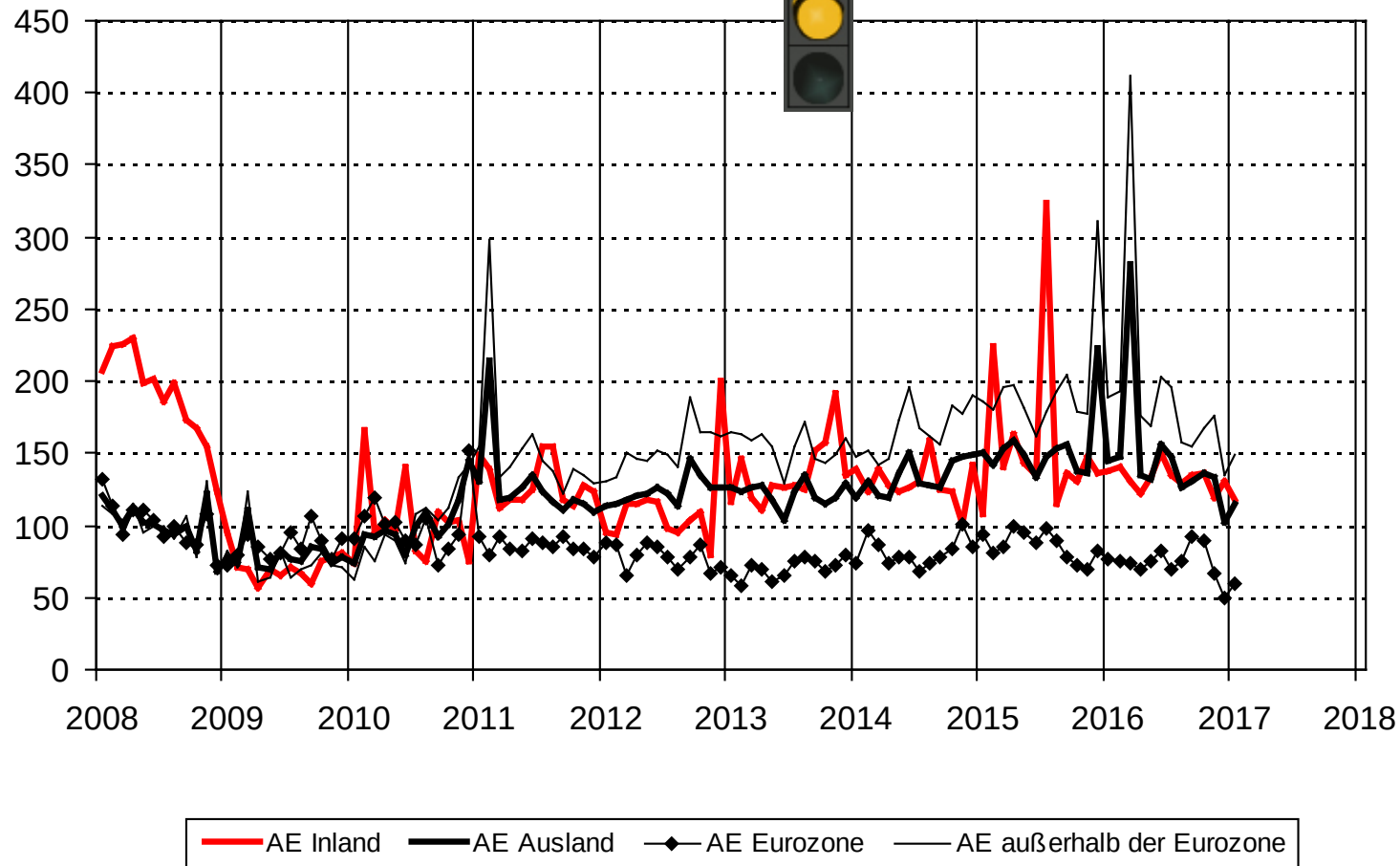
Source: Stat. BA, Index 2010=100, calendar- and seasonally adjusted, calculation BDG

Incoming Orders Pumps and Compressors Germany January 2017



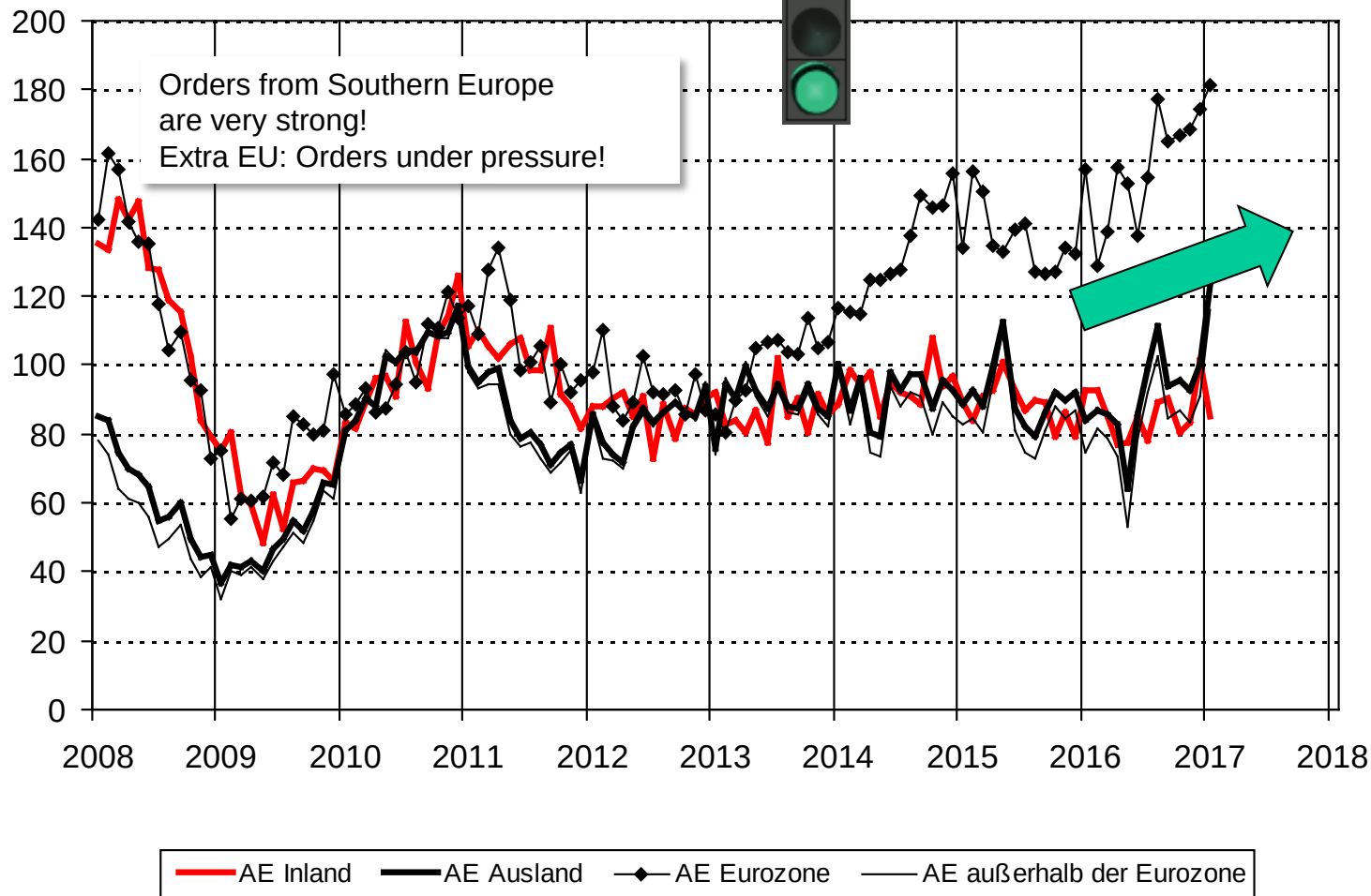
Source: Stat. BA, Index 2010=100, calendar- and seasonally adjusted, calculation BDG

Incoming Orders Engines/Turbines Germany January 2017



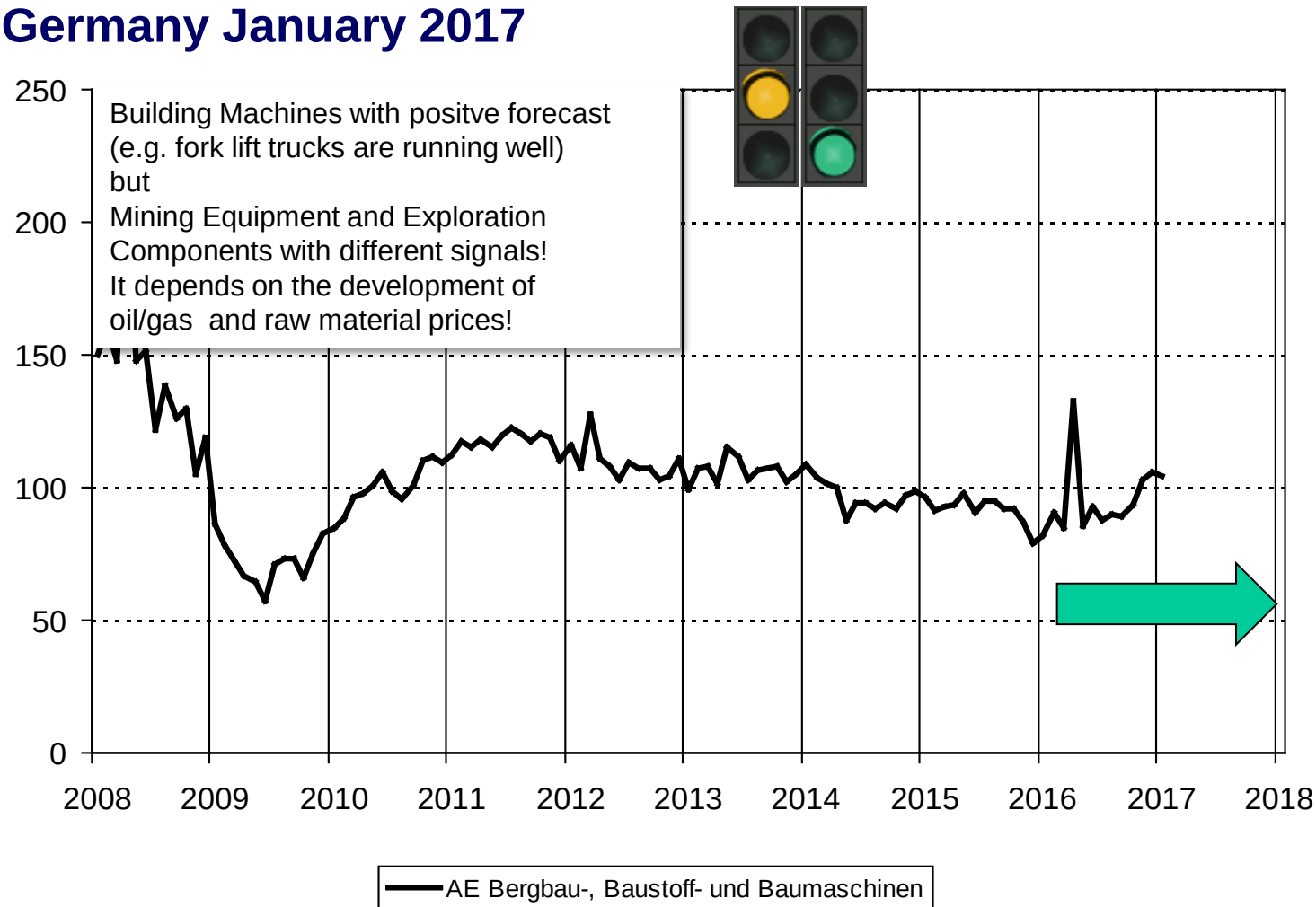
Source: Stat. BA, Index 2010=100, calendar- and seasonally adjusted, calculation BDG

Incoming Orders Textile Machinery Germany January 2017



Source: Stat. BA, Index 2010=100, calendar- and seasonally adjusted, calculation BDG

Incoming Orders Mining Equipment and Building Machinery Germany January 2017



Source: Stat. BA, Index 2010=100, calendar- and seasonally adjusted, calculation BDG

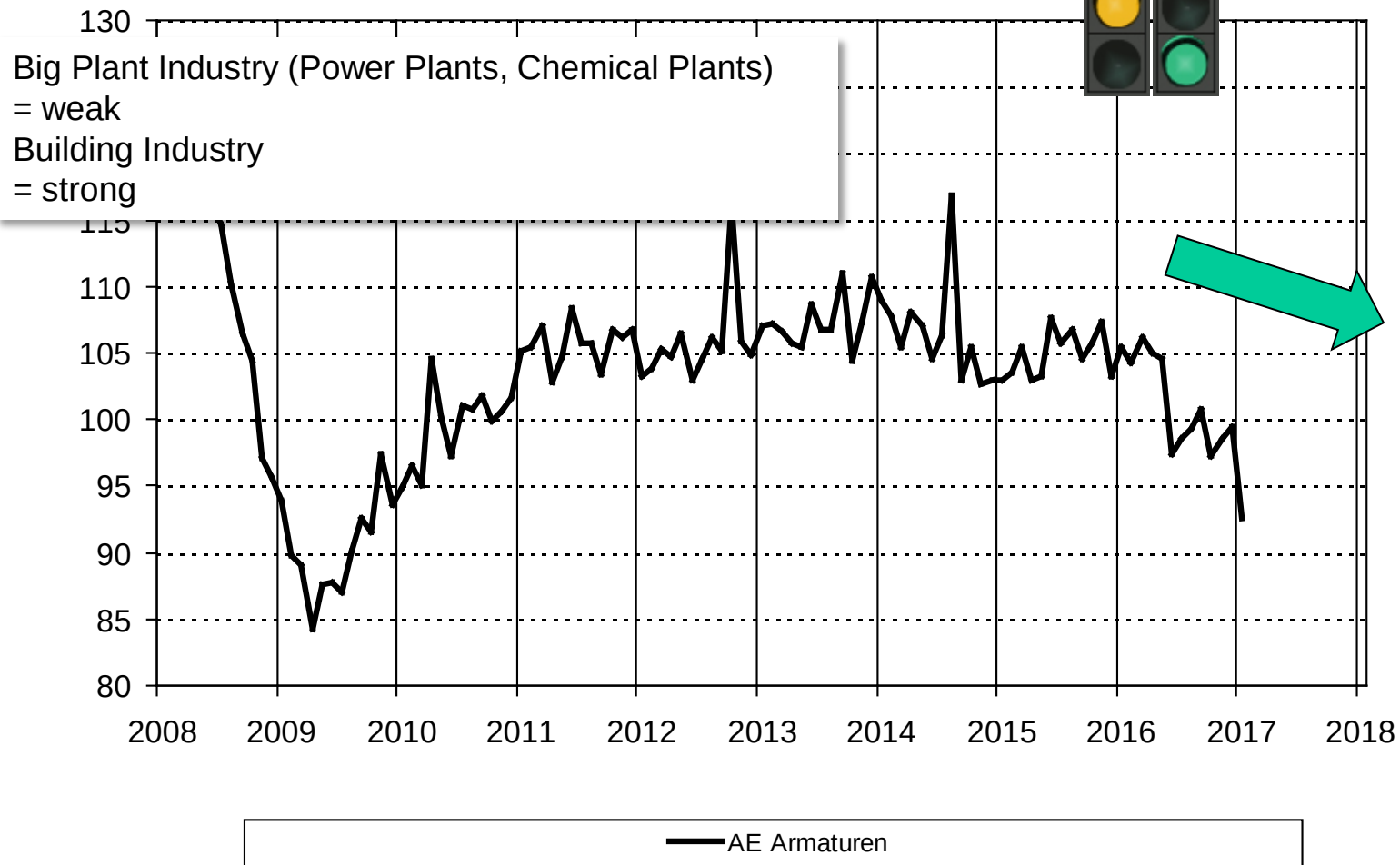
Building Machines – Stock Exchange Development after the US Elections: Caterpillar plus 26%, Case plus 25%!

Caterpillar Inc. Chart



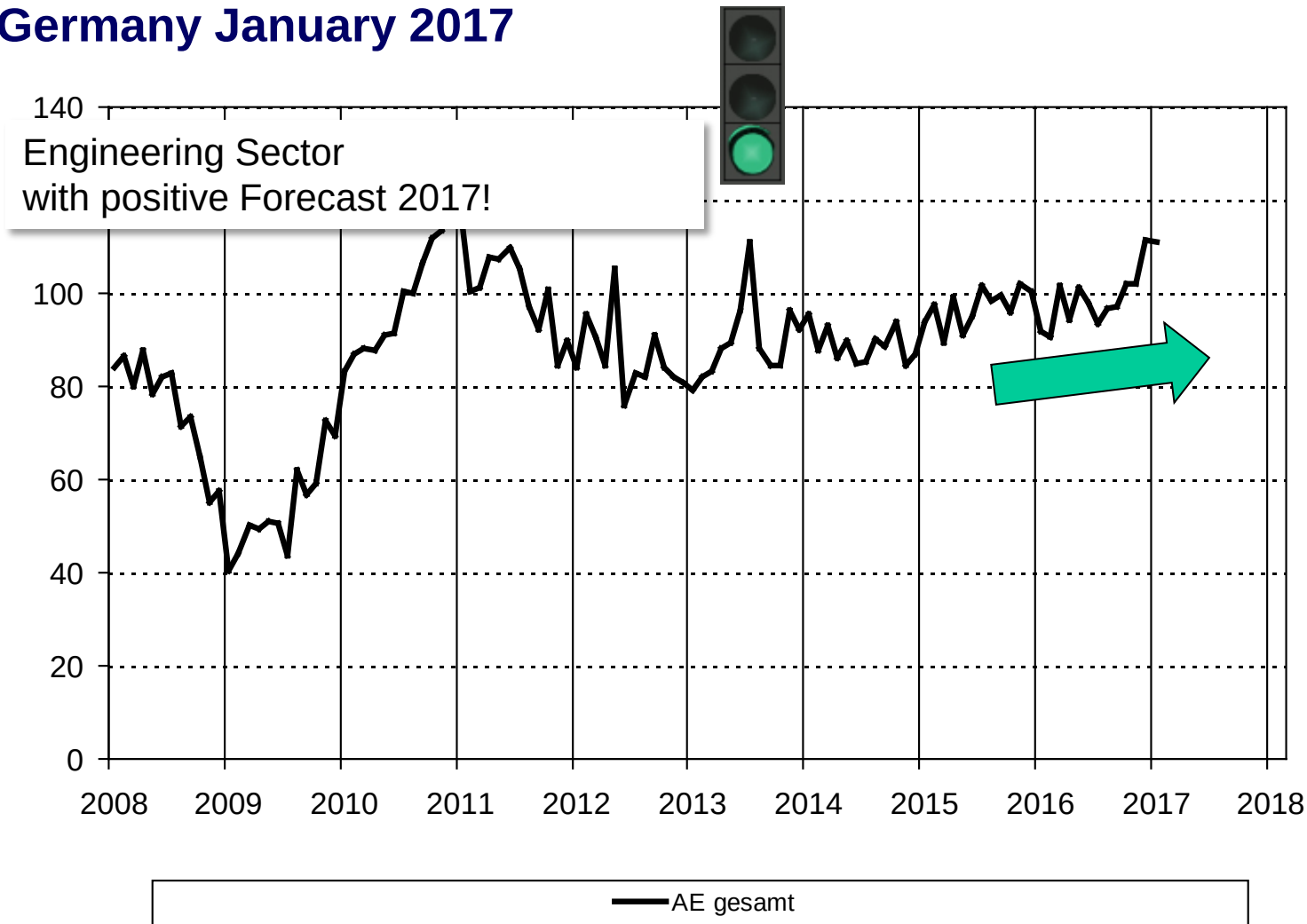
Source: Börse Frankfurt, finanzen.net

Incoming Order Valves and Fittings Germany January 2017



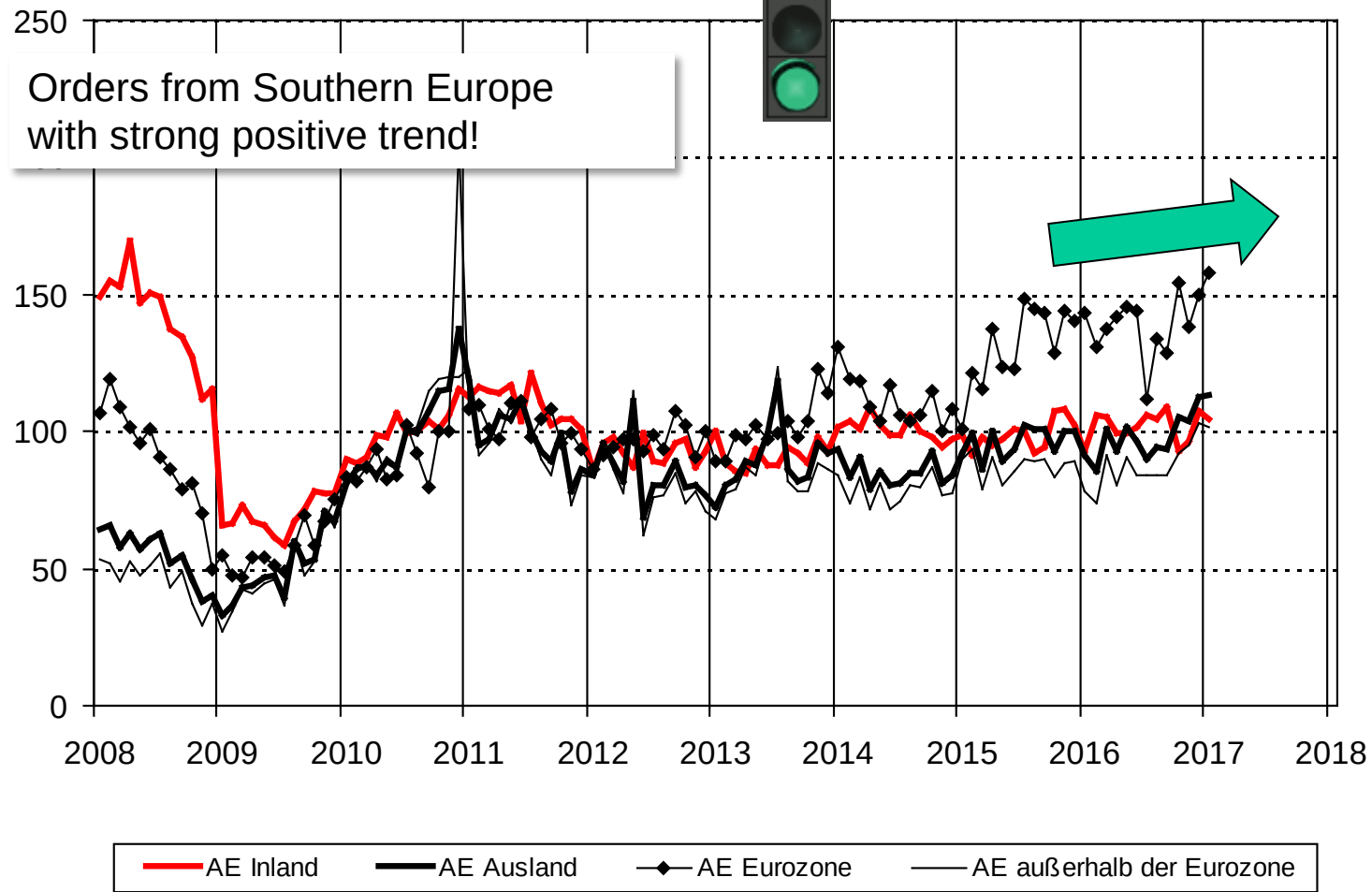
Source: Stat. BA, Index 2010=100, calendar- and seasonally adjusted, calculation BDG

Incoming Orders Plastics- and Rubber Machines Germany January 2017



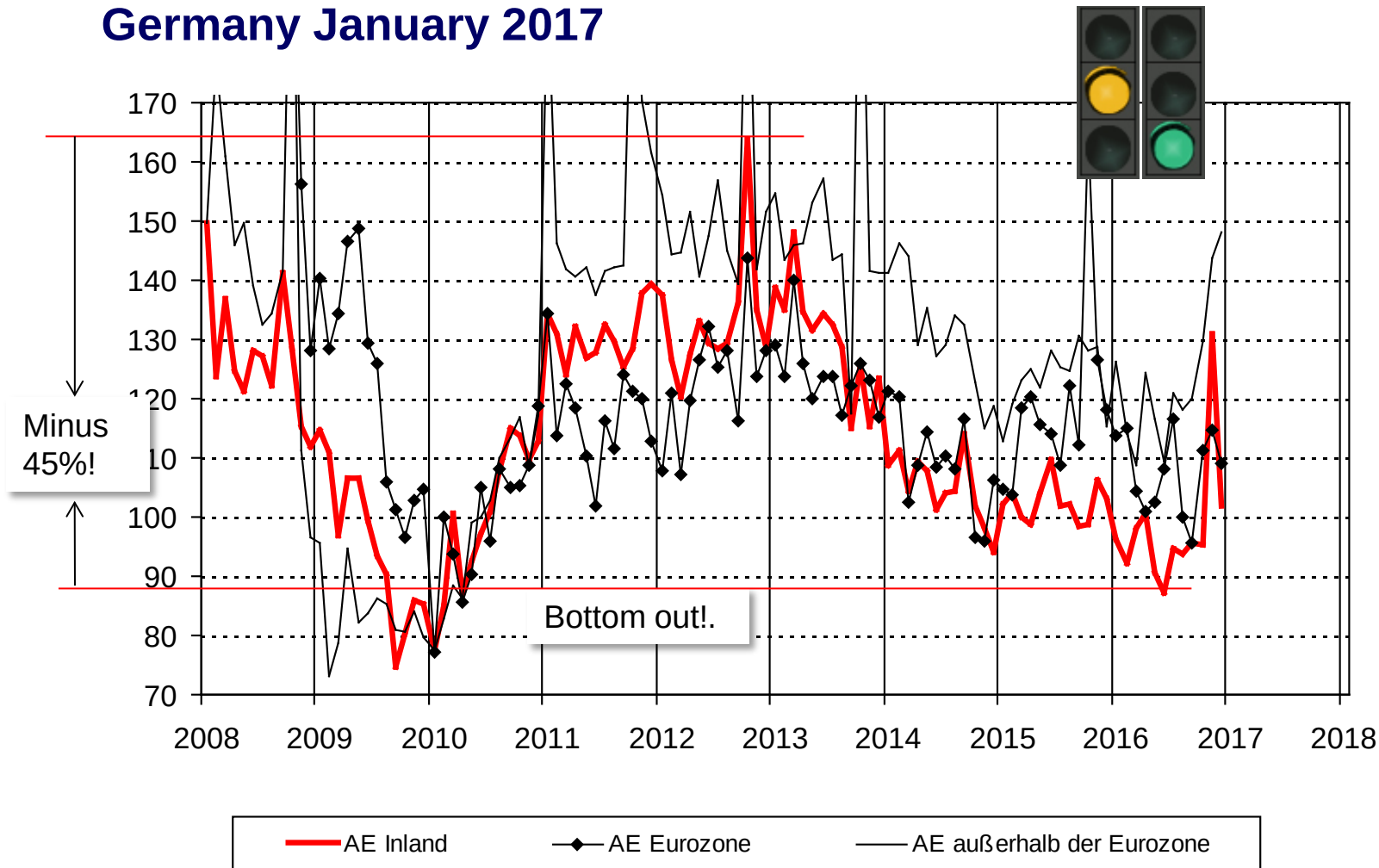
Source: Stat. BA, Index 2010=100, calendar- and seasonally adjusted, calculation BDG

Incoming Orders Plastics- and Rubber Machines Germany January 2017



Source: Stat. BA, Index 2010=100, calendar- and seasonally adjusted, calculation BDG

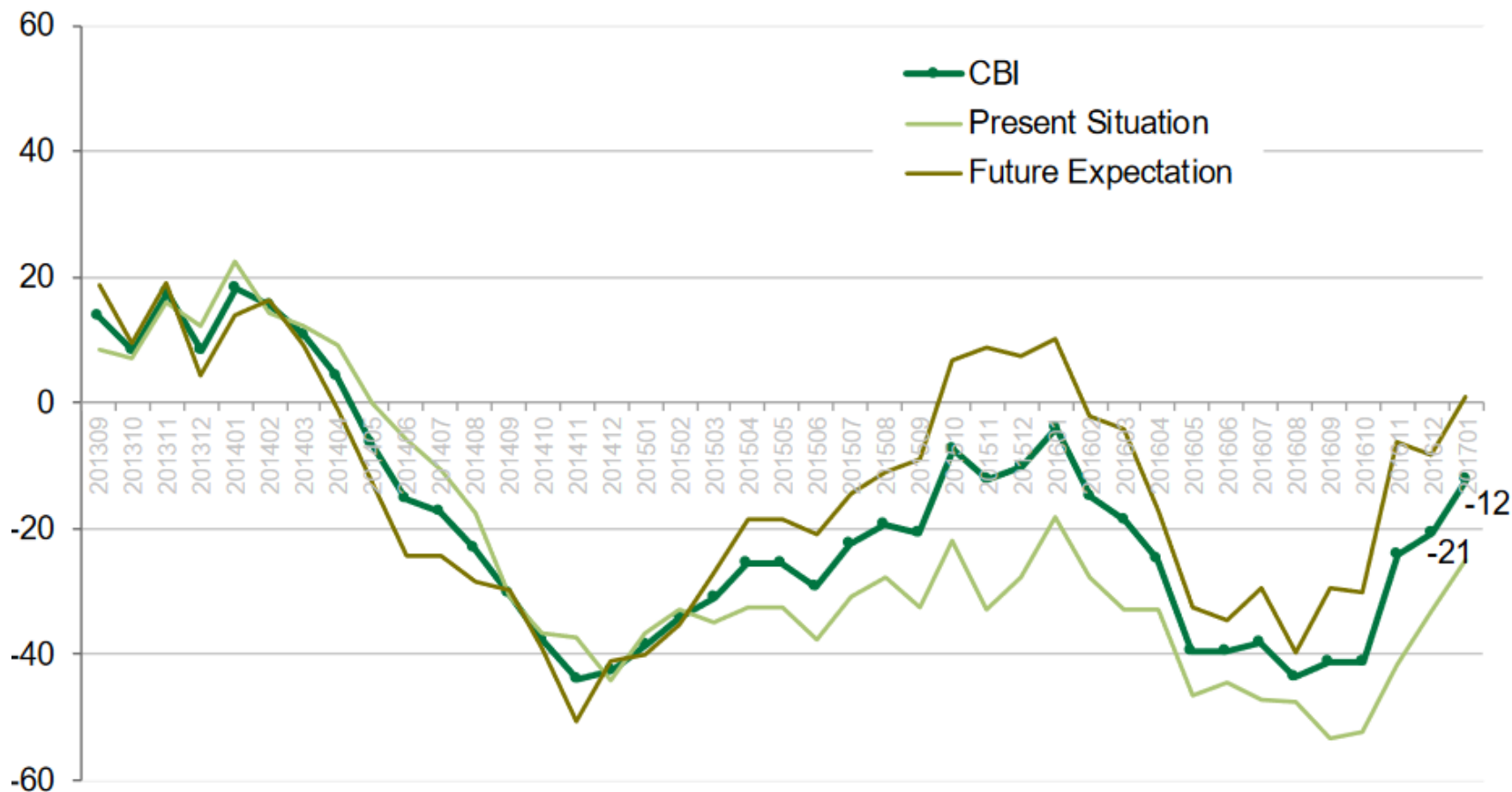
Incoming Orders Agriculture Machinery Germany January 2017



Source: Stat. BA, Index 2010=100, calendar- and seasonally adjusted, calculation BDG

European Agricultural Machinery January 2017

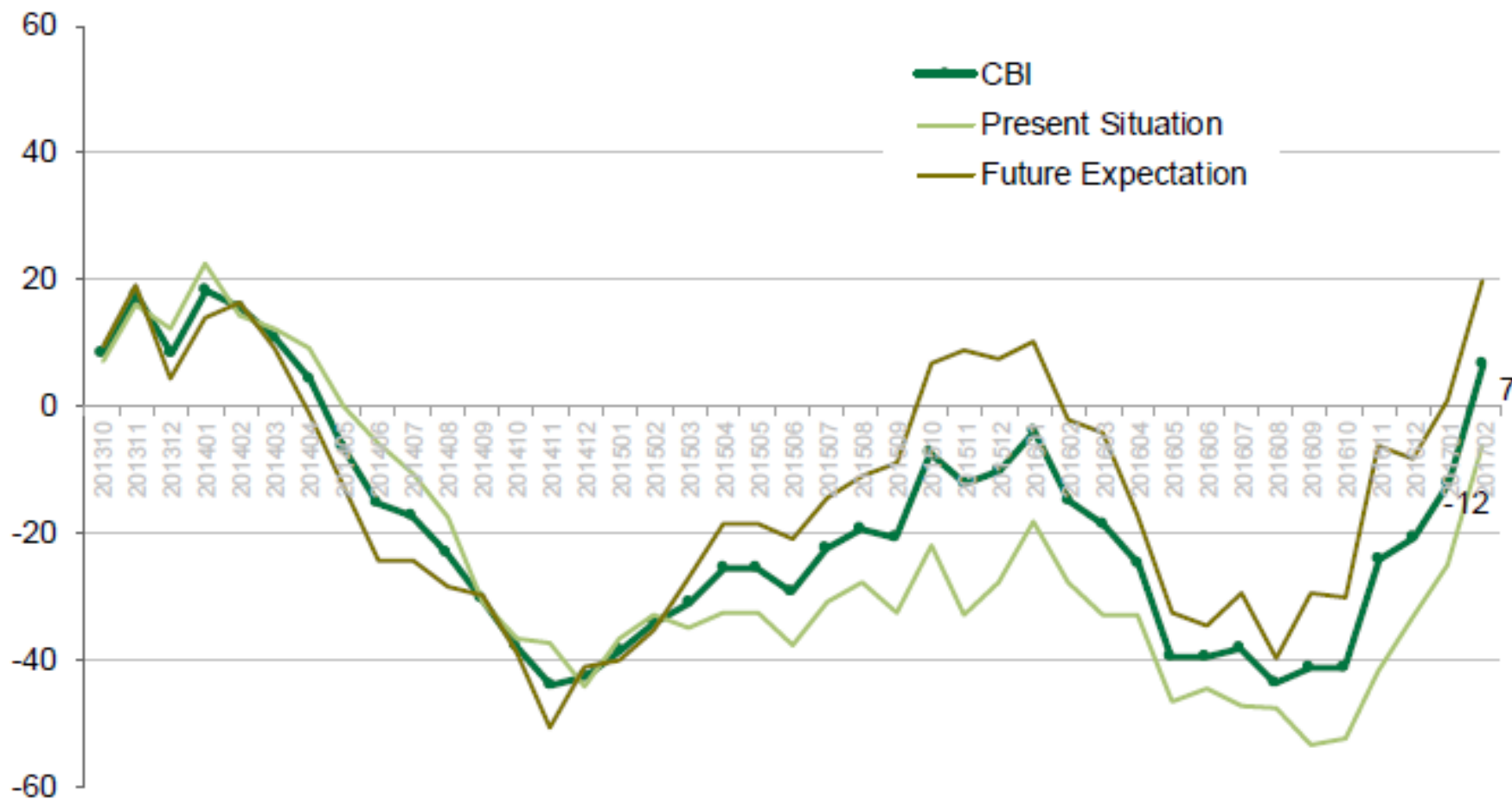
Business Climate still negative but with bottom out



Quelle: CEMA

European Agricultural Machinery February 2017

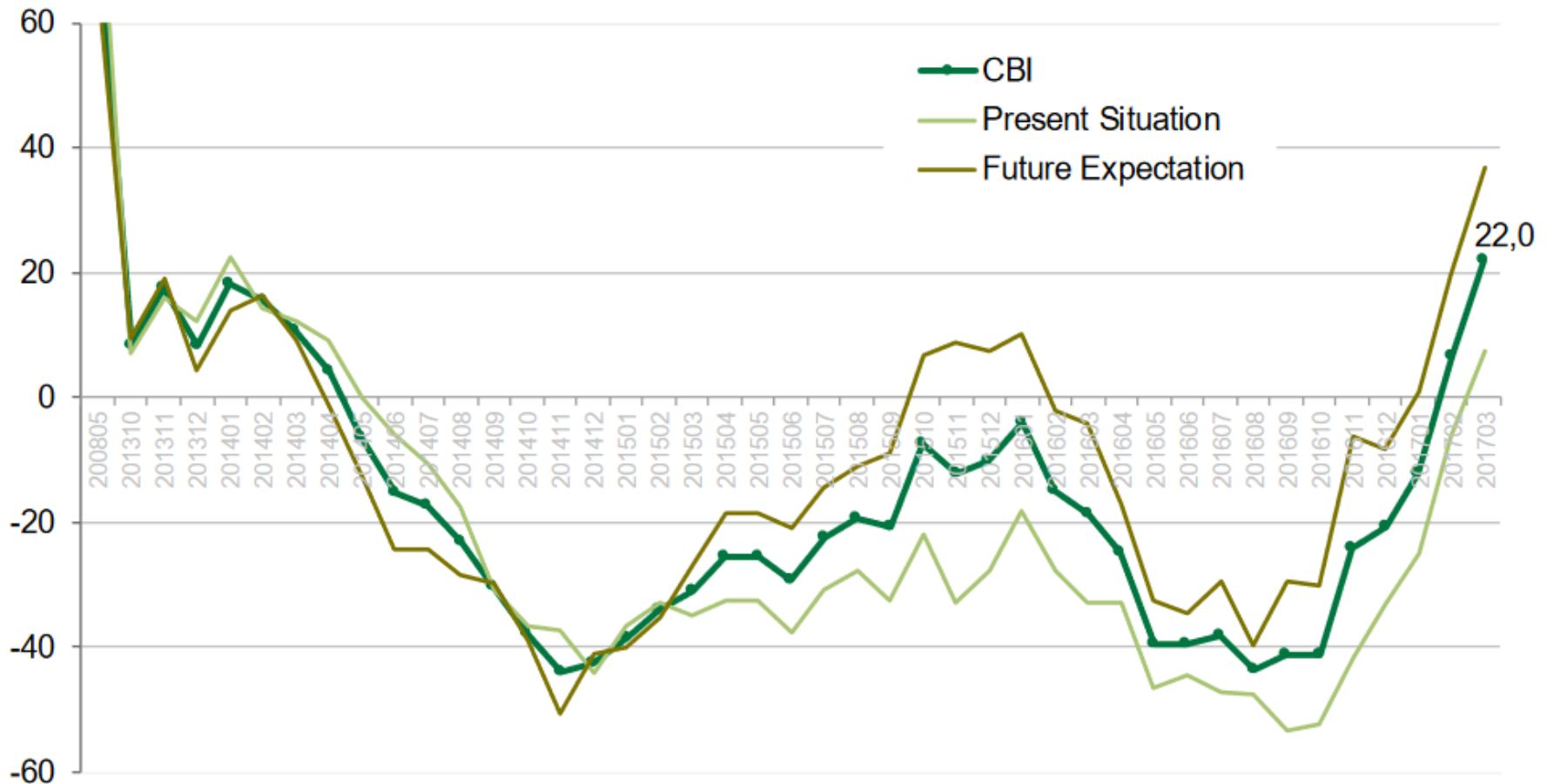
Business Climate has passed the zero line



Quelle: CEMA

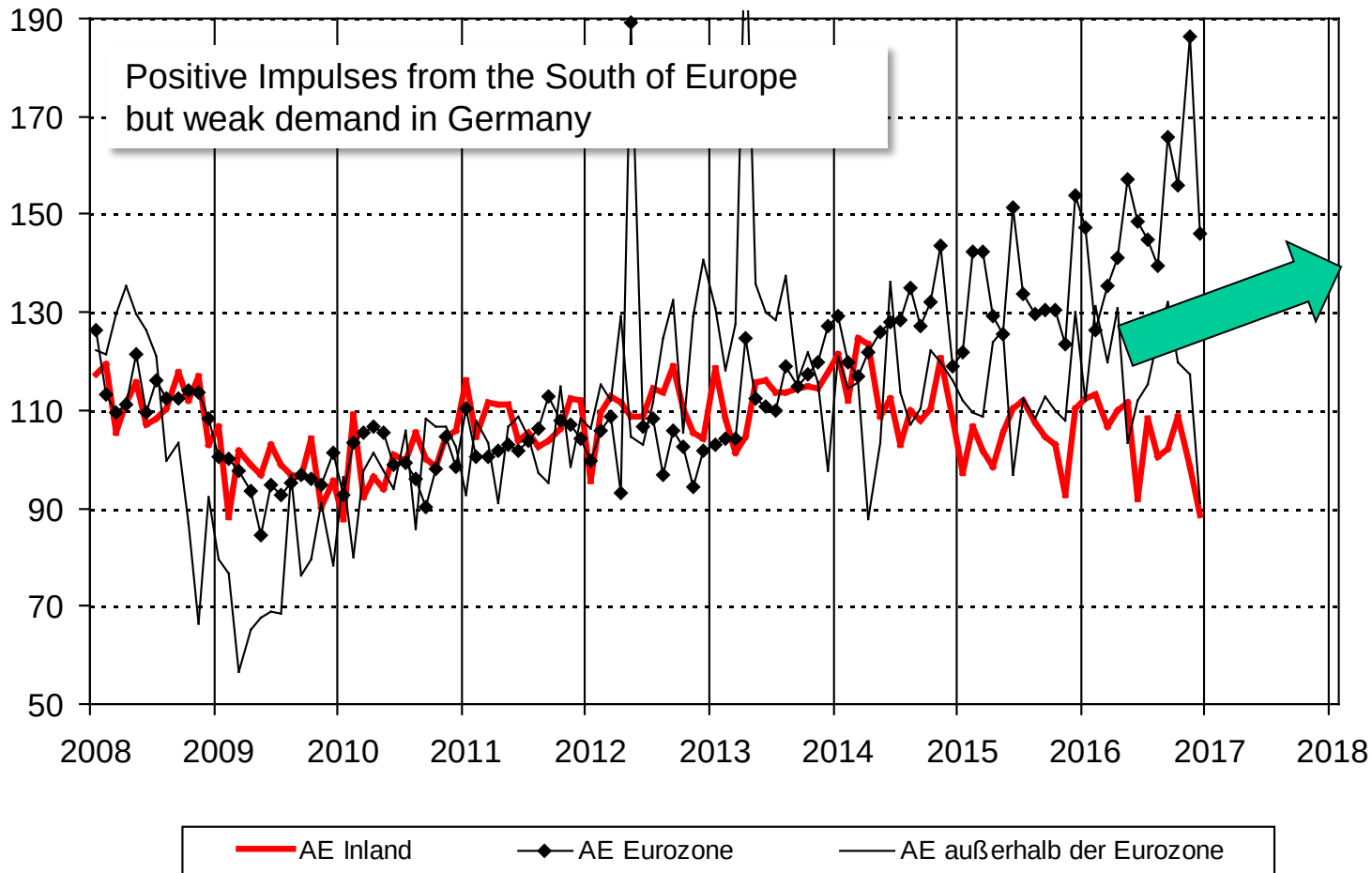
European Agricultural Machinery March 2017

Business Climate with stable improvement



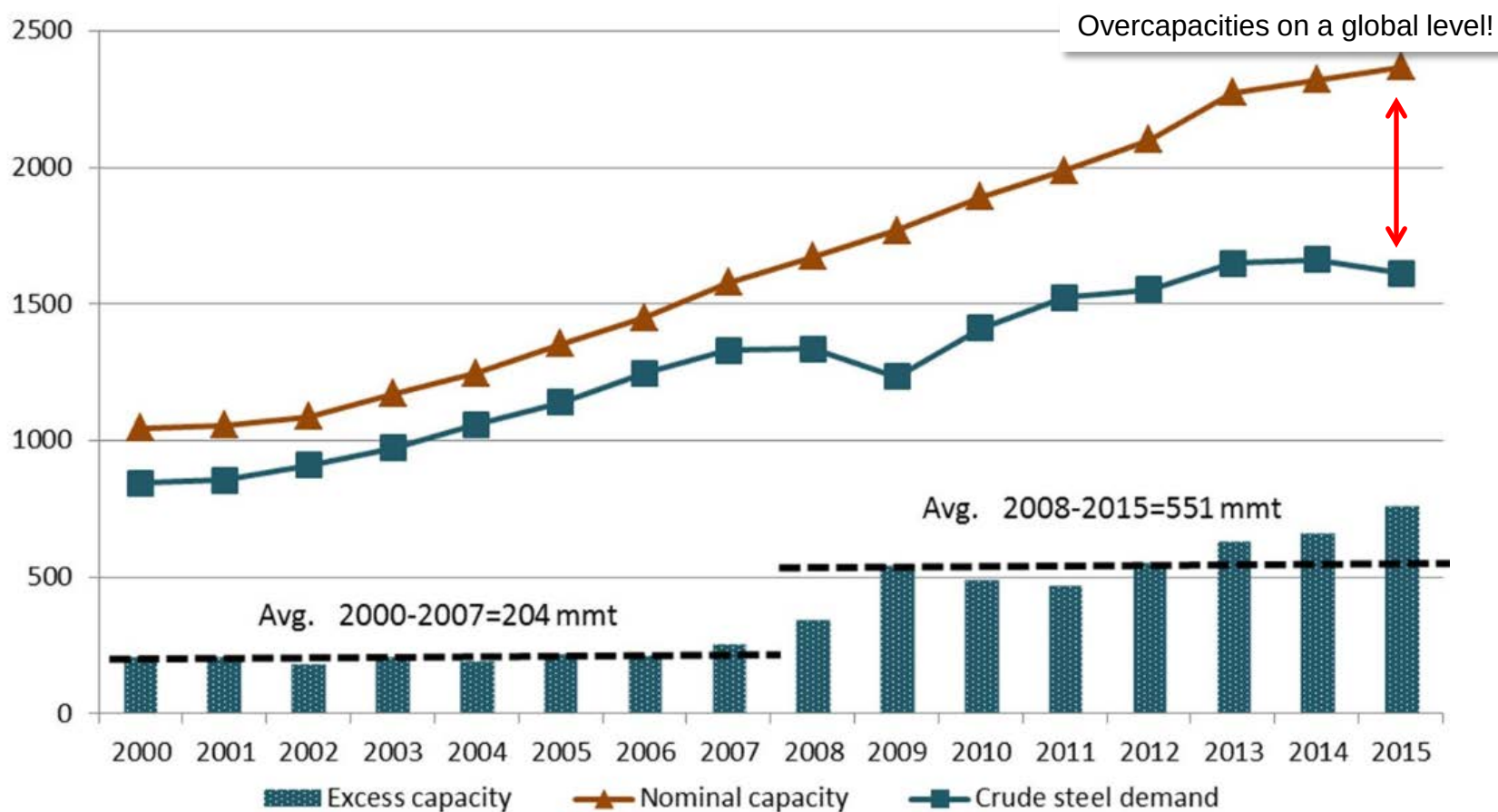
Quelle: CEMA

Incoming Orders Food Processing and Packaging Germany January 2017

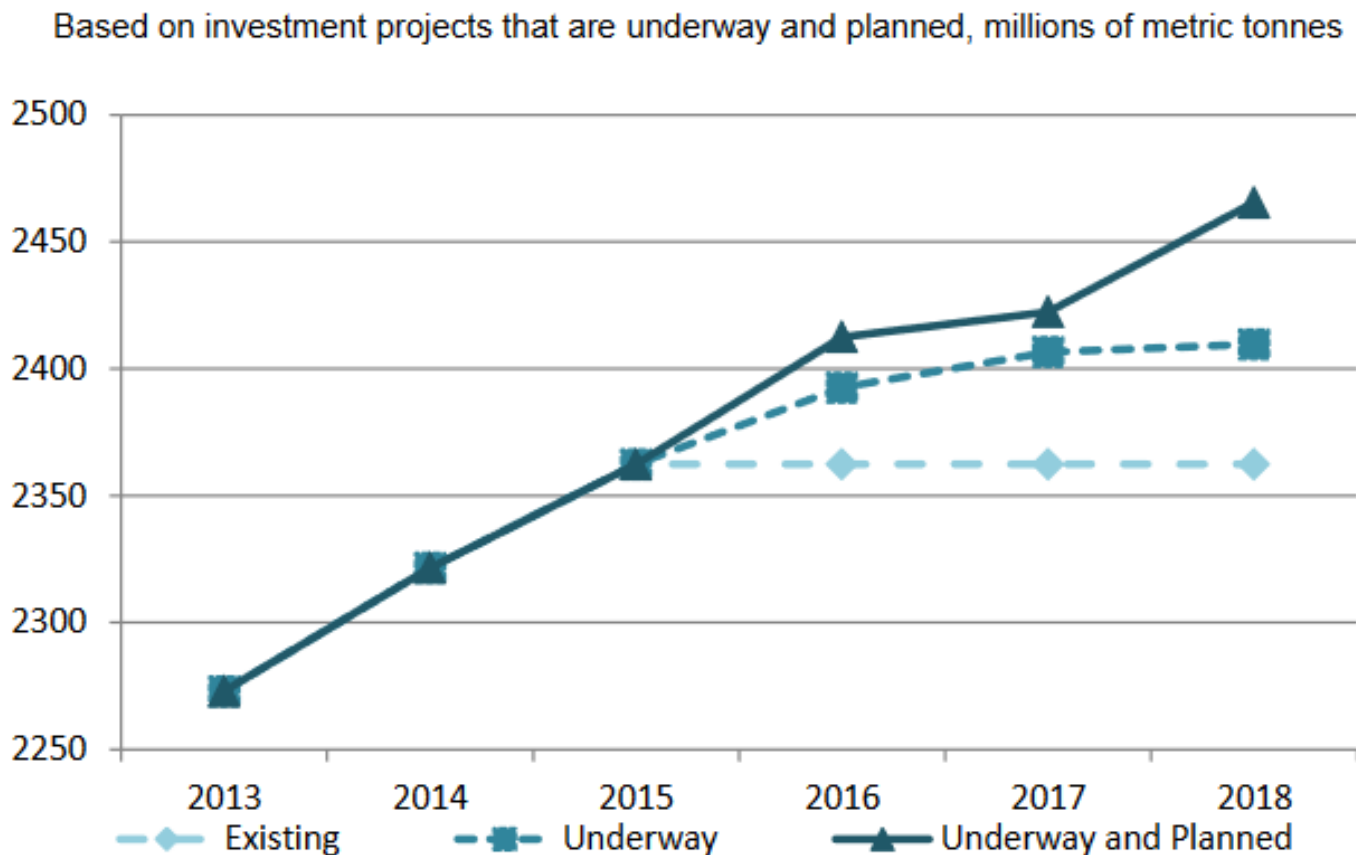


Source: Stat. BA, Index 2010=100, calendar- and seasonally adjusted, calculation BDG

Scenarios for world steelmaking capacity growth



Scenarios for world steelmaking capacity growth until 2018



Short Summary and Open Questions



Bild: Fotolia, Nesterov Vasily;

Open Questions and Uncertainties 2017

- **USA**

How quickly protectionism is working?

Results of NAFTA renegotiations?

Investmentboom with temporary positive impact for European plant manufacturer?

Direct tax penalties or modification of the tax system (border adjustment tax)?

- **China**

Real growth vs. official data

Reduction of capacity or delaying tactic and start of new capacities?

Intensive penetration of the European markets if the USA close the doors?

- **EU/ Brexit und Co.**

Impact of Brexit

= dumping effect for investments or impulses driven by relocation processes?

Current Perspectives for the Foundries



Passenger cars:

Dynamic peak passed in USA, saturation point reached in Europe? Weakness in Russia and South America, China with extended support program!



General Engineering:

2017 chance for a stable „black zero“ plus something after years of stagnation

Positive: automation, robotics and rubber- and plastic machines, building machines
wind turbines (volume ok, prices under pressure)

Bottom out: mining, agricultural, paper machines, foundry machines
low capacity utilisation in the EU

- **Further Impulses possible from the Building Industry (on the longterm!)**



Risks

Neverending story: Overcapacities – hard price competition – structural change
„Trump“-Impact and raising key interest rates in the USA will lead to
further capital outflow from emerging markets
Brexit declaration is dumping investments

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Round Table

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Key Figures German Foundry Industry



Bild: Soschinski

Source: Stat BA, BDG, preliminary data

Production:

5.165 m. t

thereof

Fe: 3.916 m. t,

NF: 1.249 m. t

Turnover:

ca. 12.559 bn. € *

Employees:

77 400 Mitarbeiter *

Fe: 42 100; NF: 35 300

* (Companies. >50 Empl.)

German Foundry Industry 2016 by Material (Production)

Ferrous complete

3.916 m. t

-5.0 %

thereof

Iron castings

2.232 m. t, -5.8 %

Ductile castings

1.510 m. t, -3.2 %

Steel castings

174 200 t, -8.6 %

Non-ferrous complete

1.249 m. t

+2.2 %

thereof

Aluminium

1.097 t, +2.3 %

Magnesium

17 400 t, +14.2 %,

Copper

78 500 t, -1.2 %

Zinc

56 200 t, +2.9 %

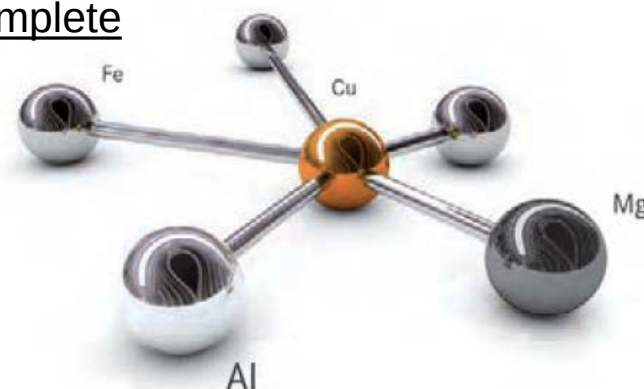
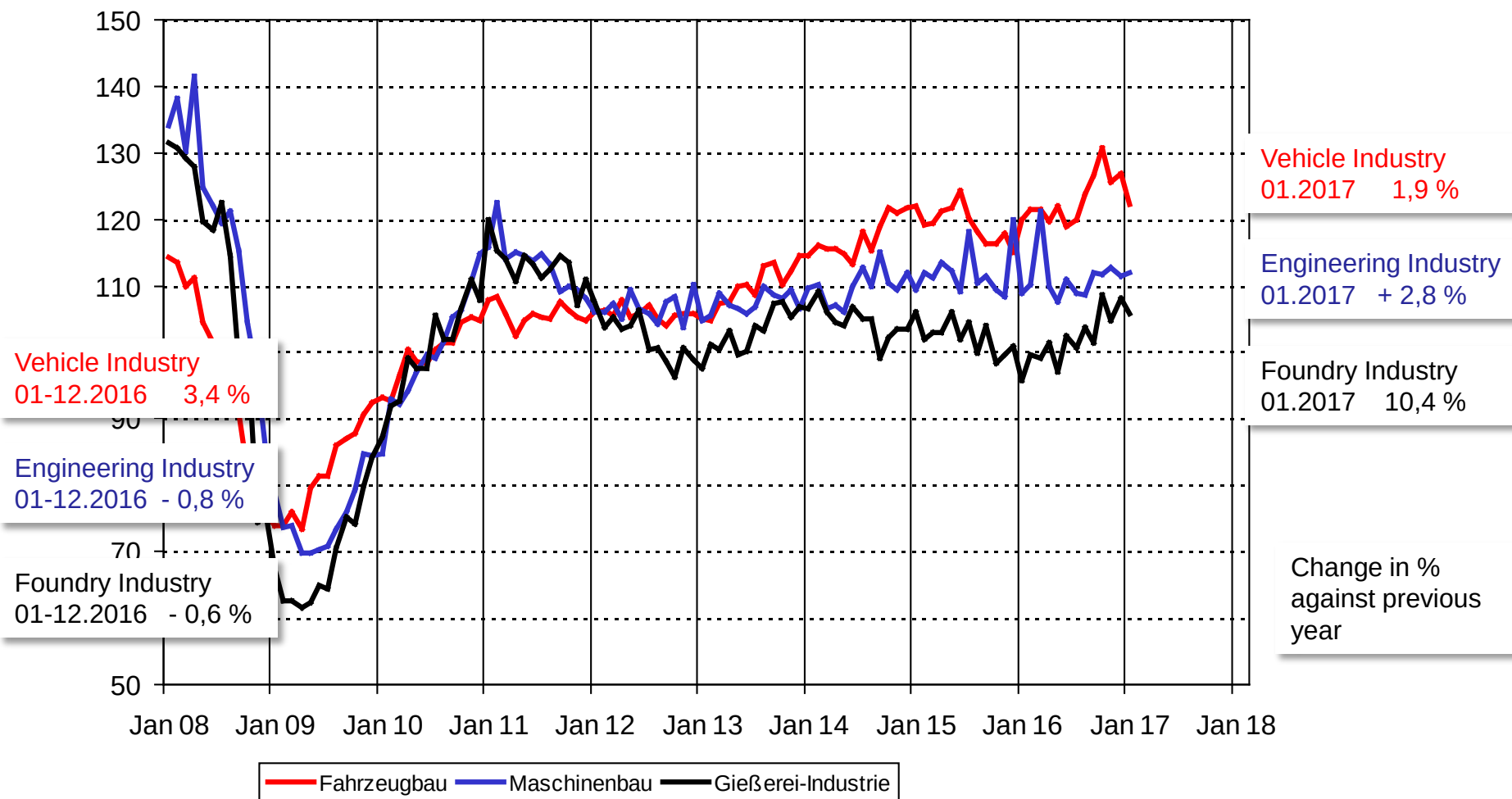


Foto: © froxx - Fotolia.com

Foundry Industry Incoming Orders Germany

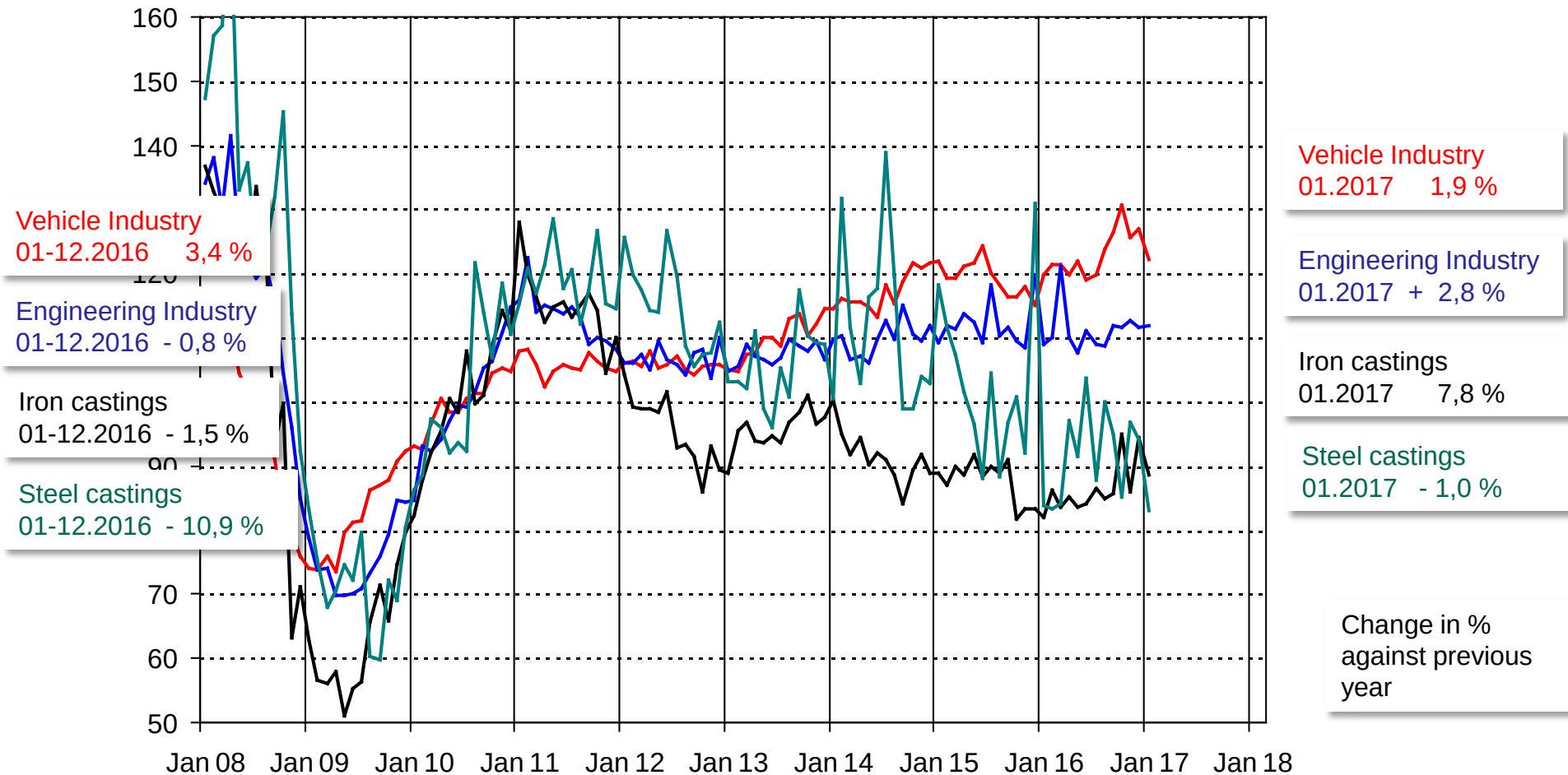
Pace to recovery!



Quelle: Stat. BA, Index 2010=100, kalender- und saisonbereinigt, Berechnungen BDG

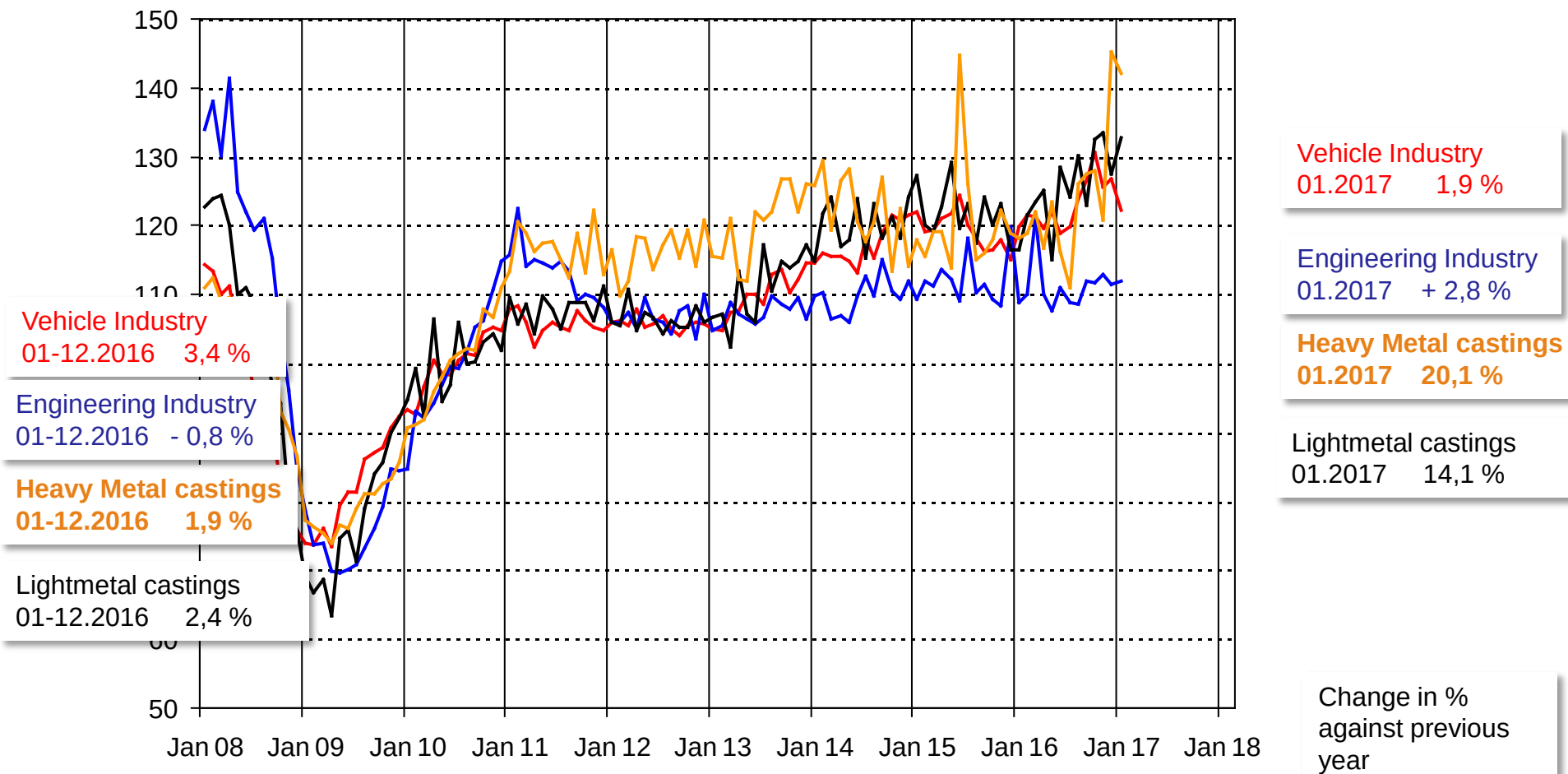
Incoming Orders Iron castings: Bottom out!

Incoming Orders Steel castings: High volatility on low level!



Quelle: Stat. BA, Index 2010=100, kalender- und saisonbereinigt, Berechnungen BDG

Incoming Orders Non Ferrous castings: Peak reached?



Quelle: Stat. BA, Index 2010=100, kalender- und saisonbereinigt, Berechnungen BDG

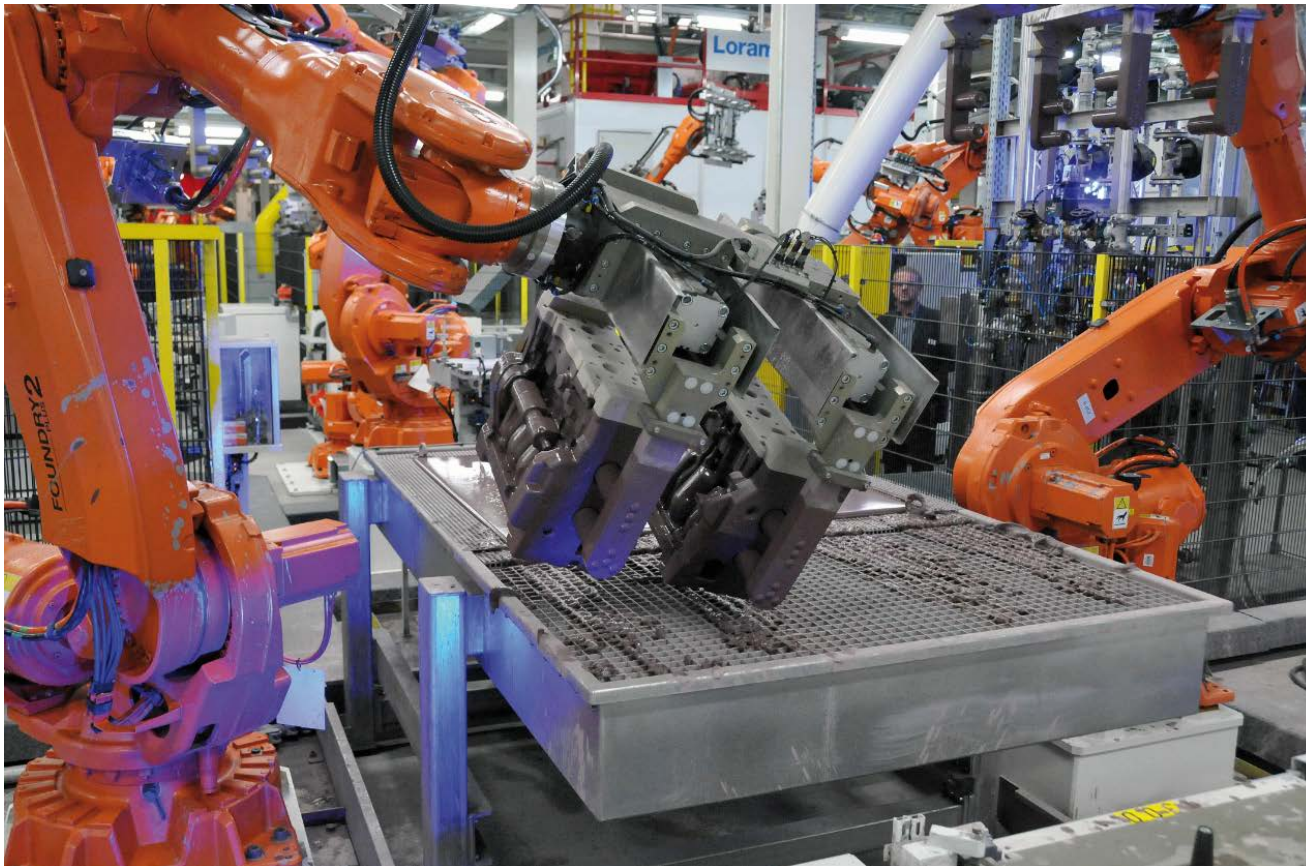
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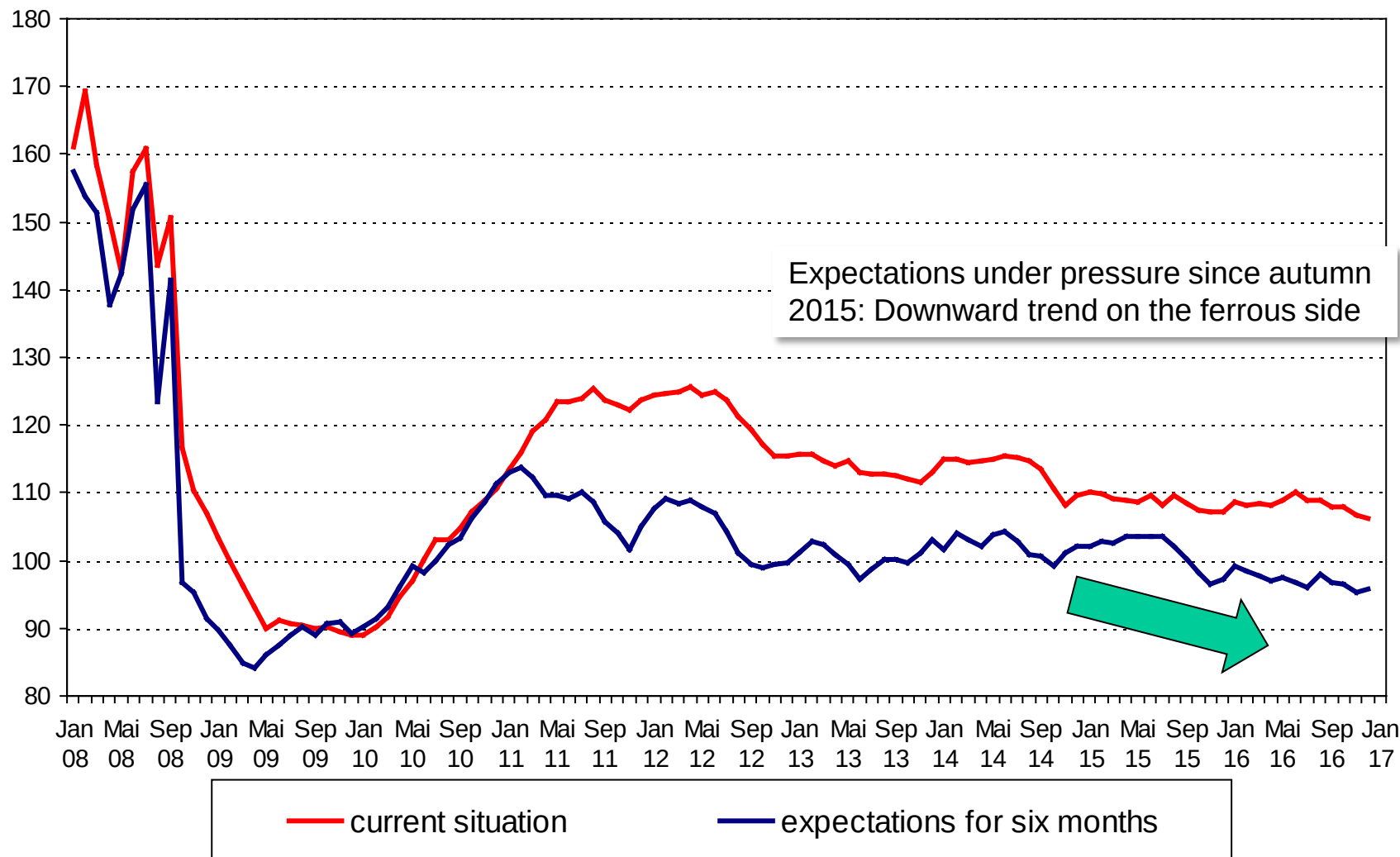
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European Foundry Industry Expectations



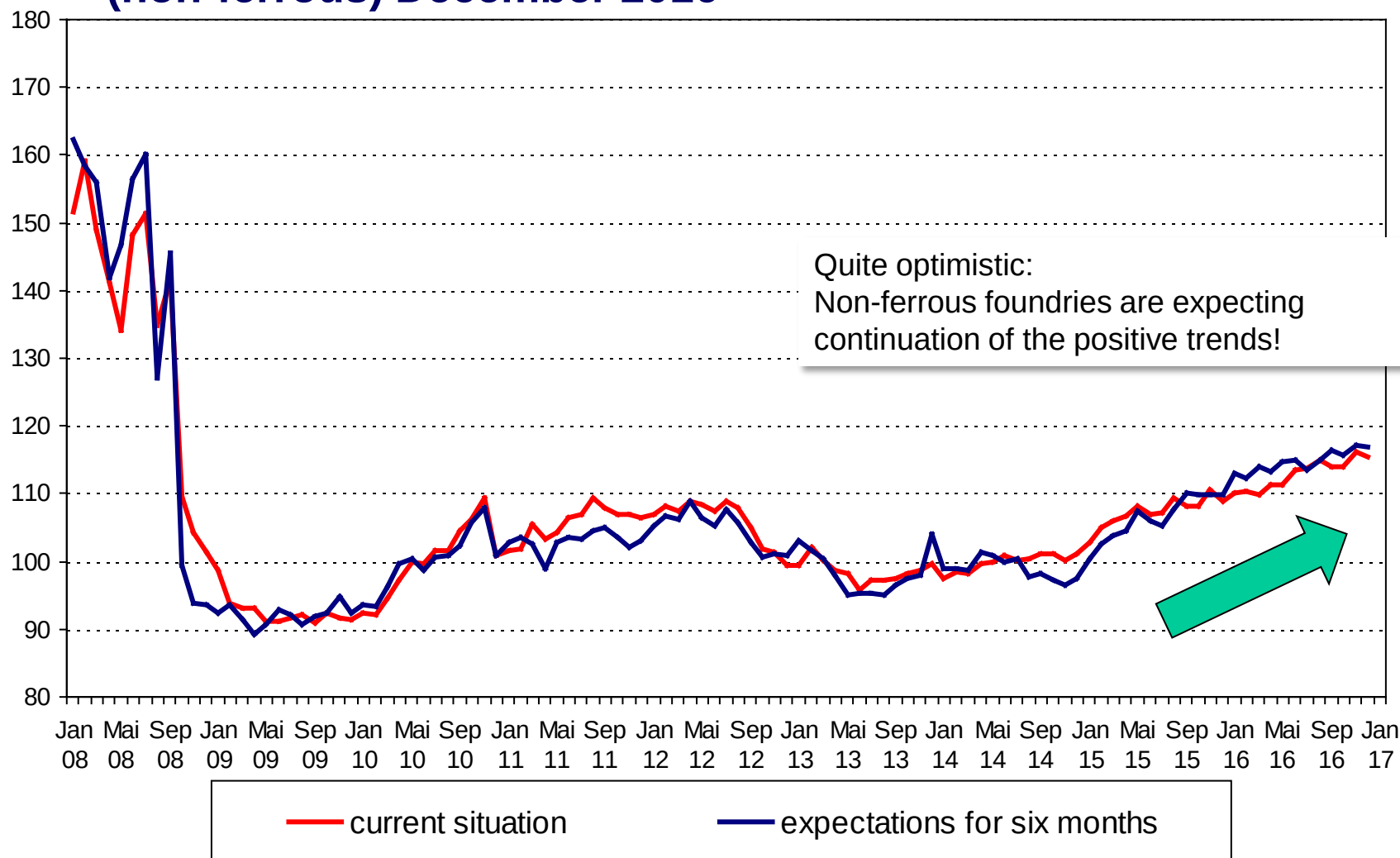
Source: Eisenwerk Brühl, Bernd Rosenbaum

FISI – European Foundry Industry Sentiment Indicator (ferrous) December 2016



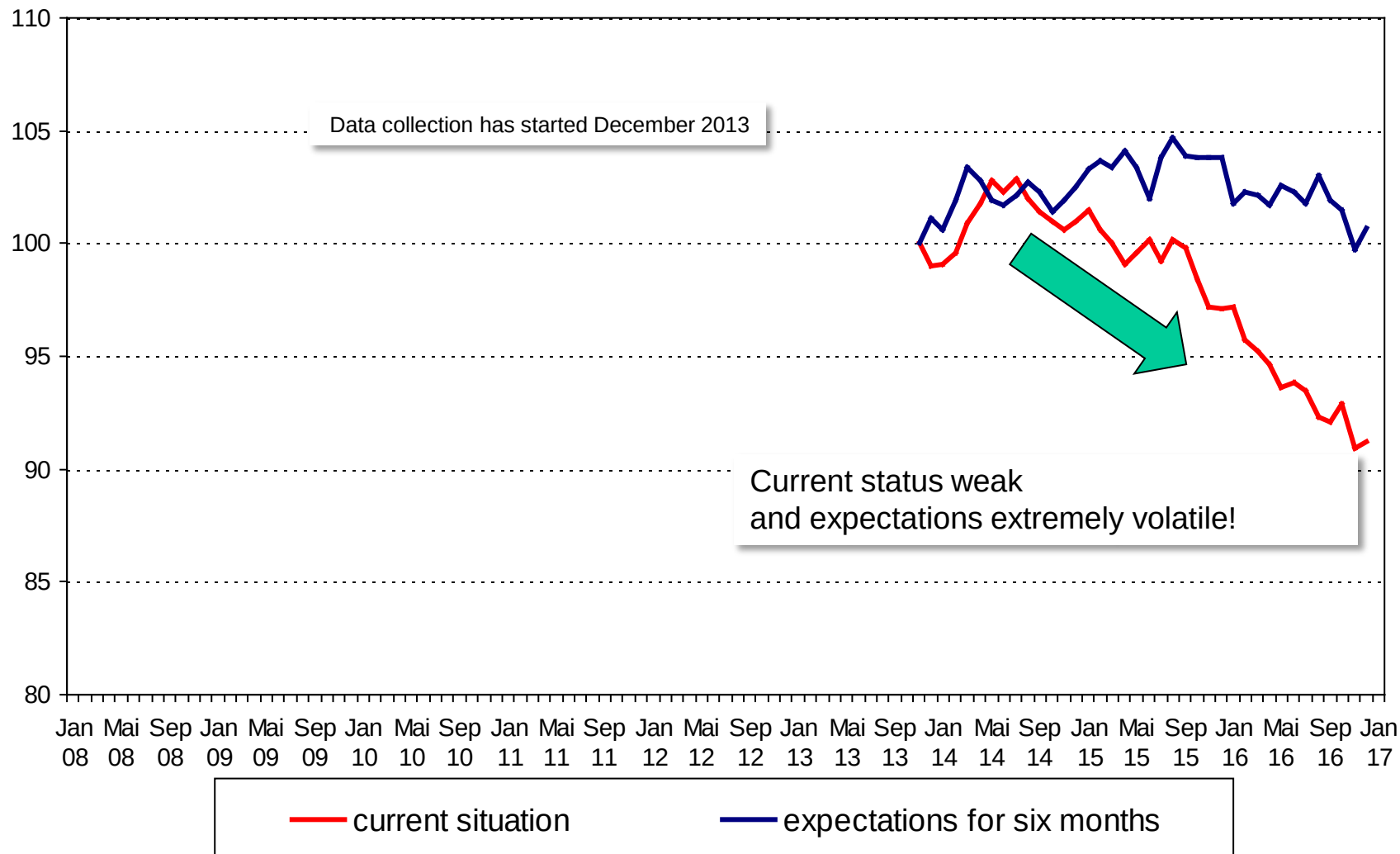
Source CAEF, Index 2010 = 100, recalculation since Jan 2014: country weight based on production 2014 (incl. Croatia)

FISI – European Foundry Industry Sentiment Indicator (non-ferrous) December 2016



Source CAEF, Index 2010 = 100, recalculation since Jan 2014: country weight based on production 2014 (incl. Croatia)

FISI – European Foundry Industry Sentiment Indicator (steel castings) December 2016



Source CAEF, Index Nov 2013 = 100, recalculation since Jan 2014: country weight based on production 2014 (incl. Croatia)