



Market Outlook and Challenges for EU Steel



Kallanish Europe Steel Markets 2019 Conference
Amsterdam, 27 June 2019



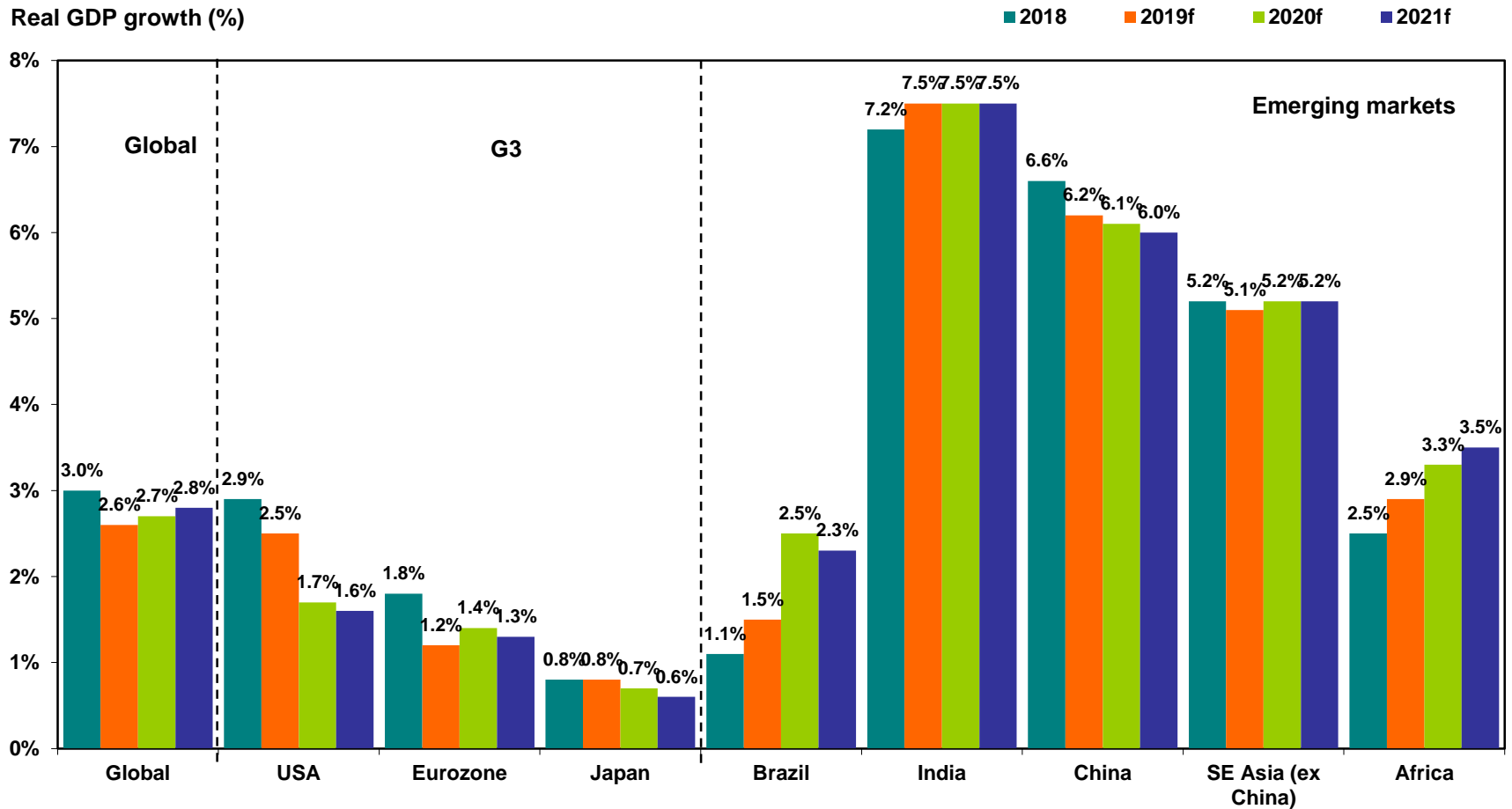
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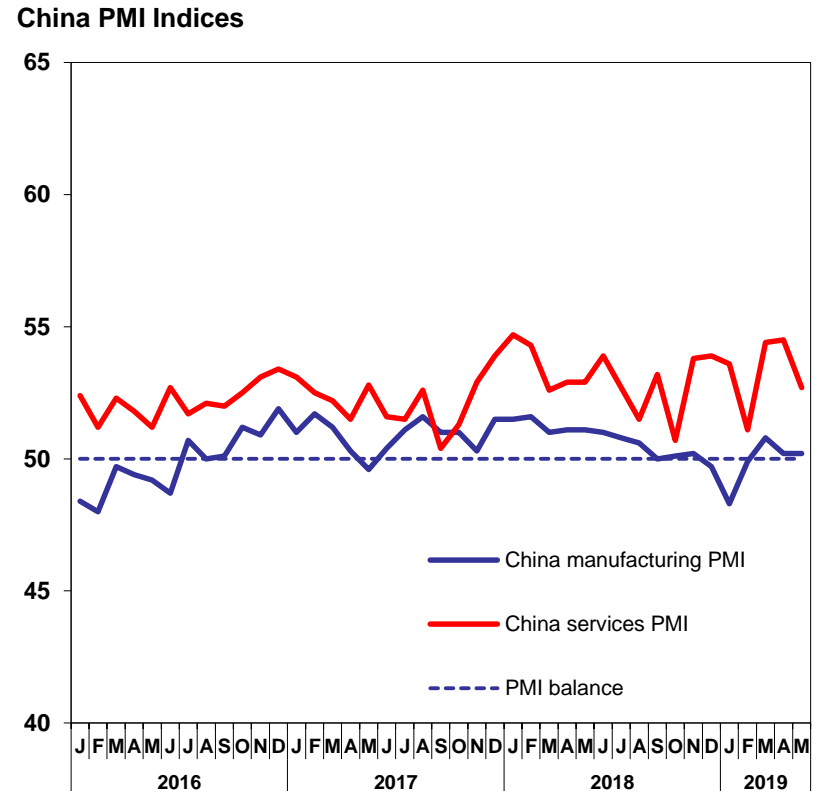
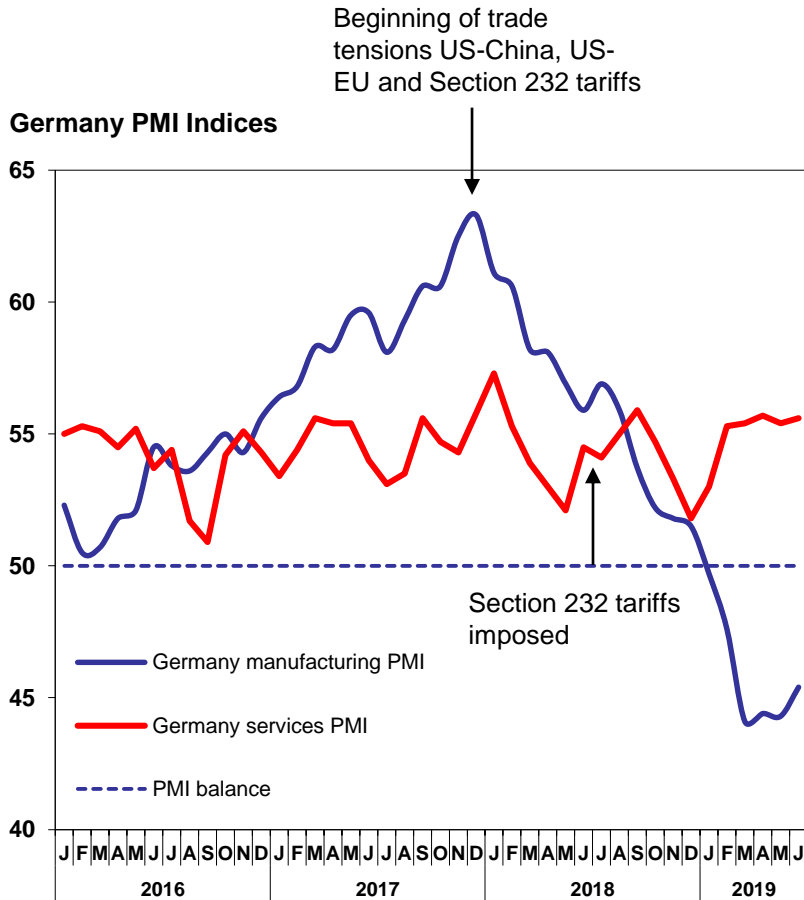
- **Global Market Outlook**
- EU Market Outlook
- Long term challenges for the EU steel industry:
 - Consolidation
 - Decarbonization

General economic growth prospects have weakened sharply in the developed world, but are holding up well in the emerging markets



Source: World Bank, SteelConsult

However, manufacturing has been much harder hit than services

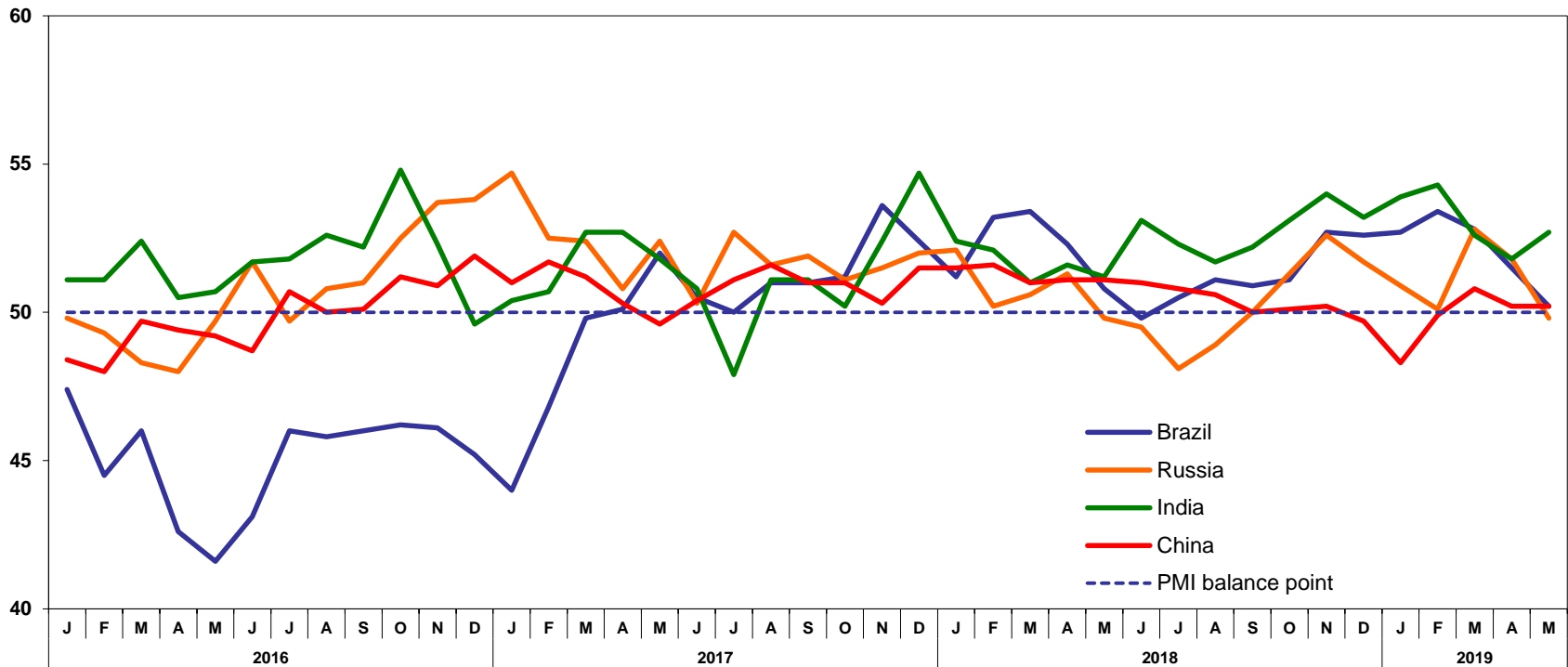


Source: Markit

Note: German data for June are flash estimates

Within the BRIC countries, only Indian manufacturing activity is remaining robust

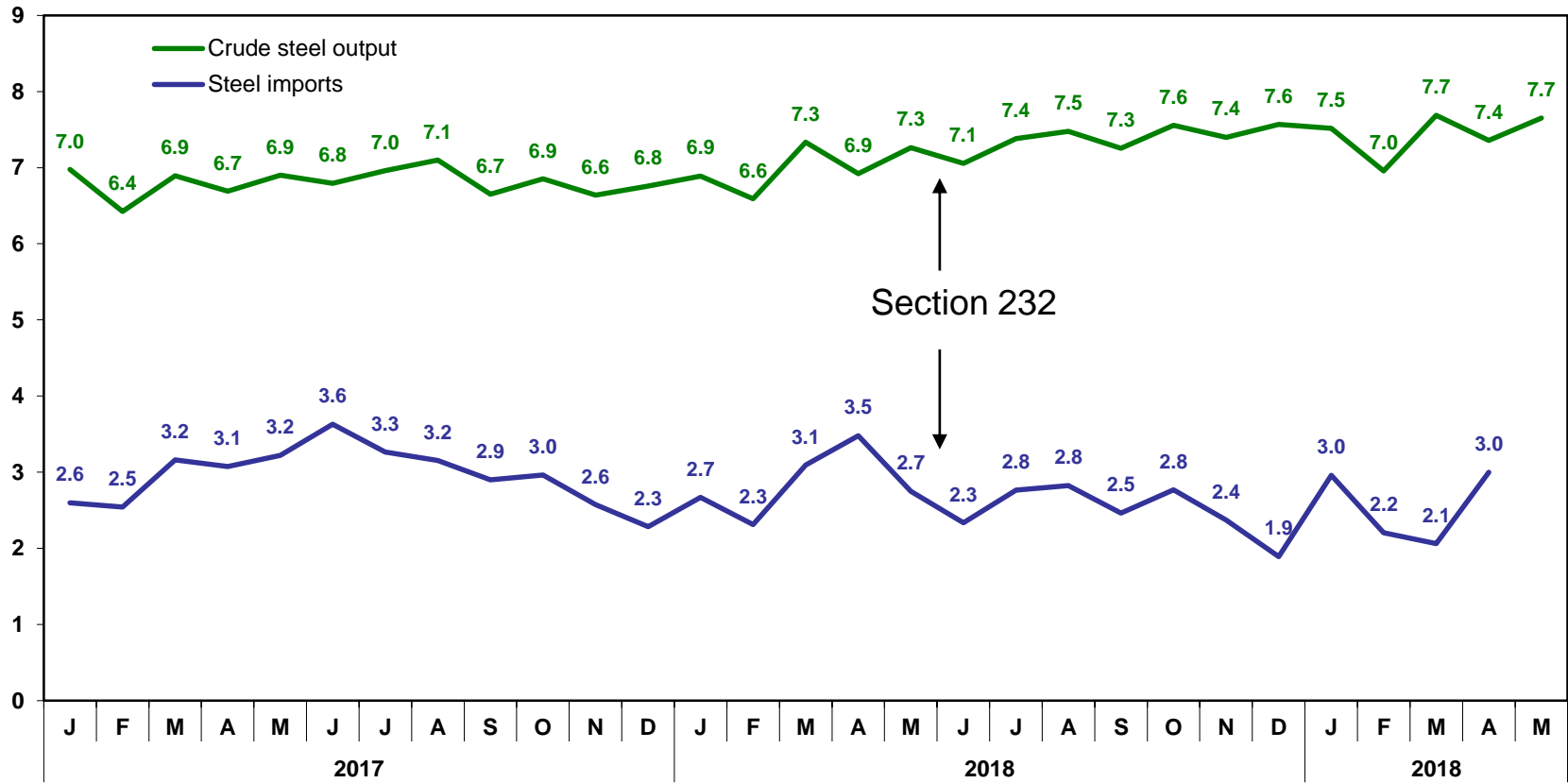
Manufacturing PMI Index



Source: Markit, HSBC

In the USA, crude steel output has risen and imports have fallen over the last year

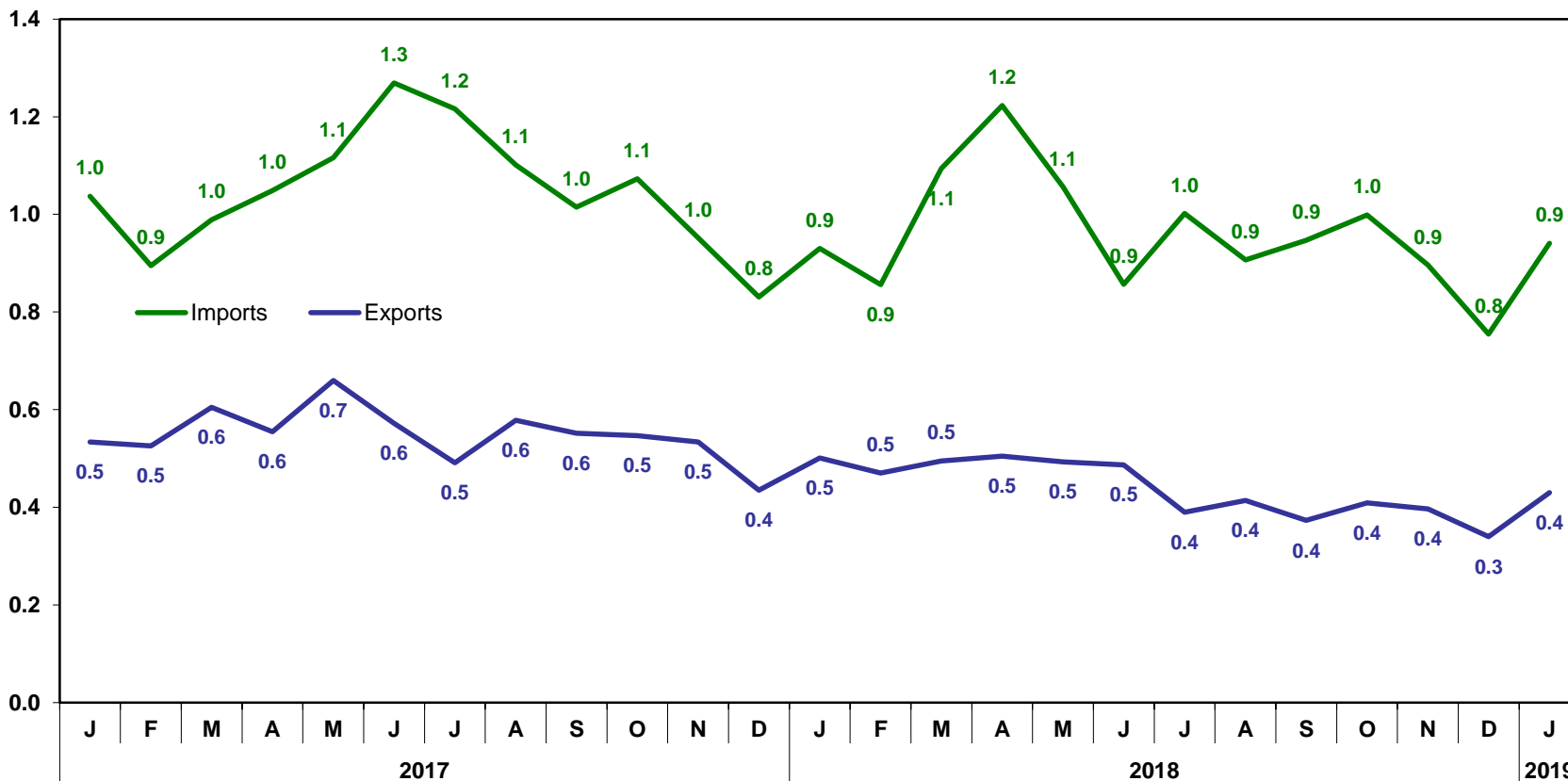
US steel output and steel imports (mln tonnes)



Source: WSA, SteelConsult

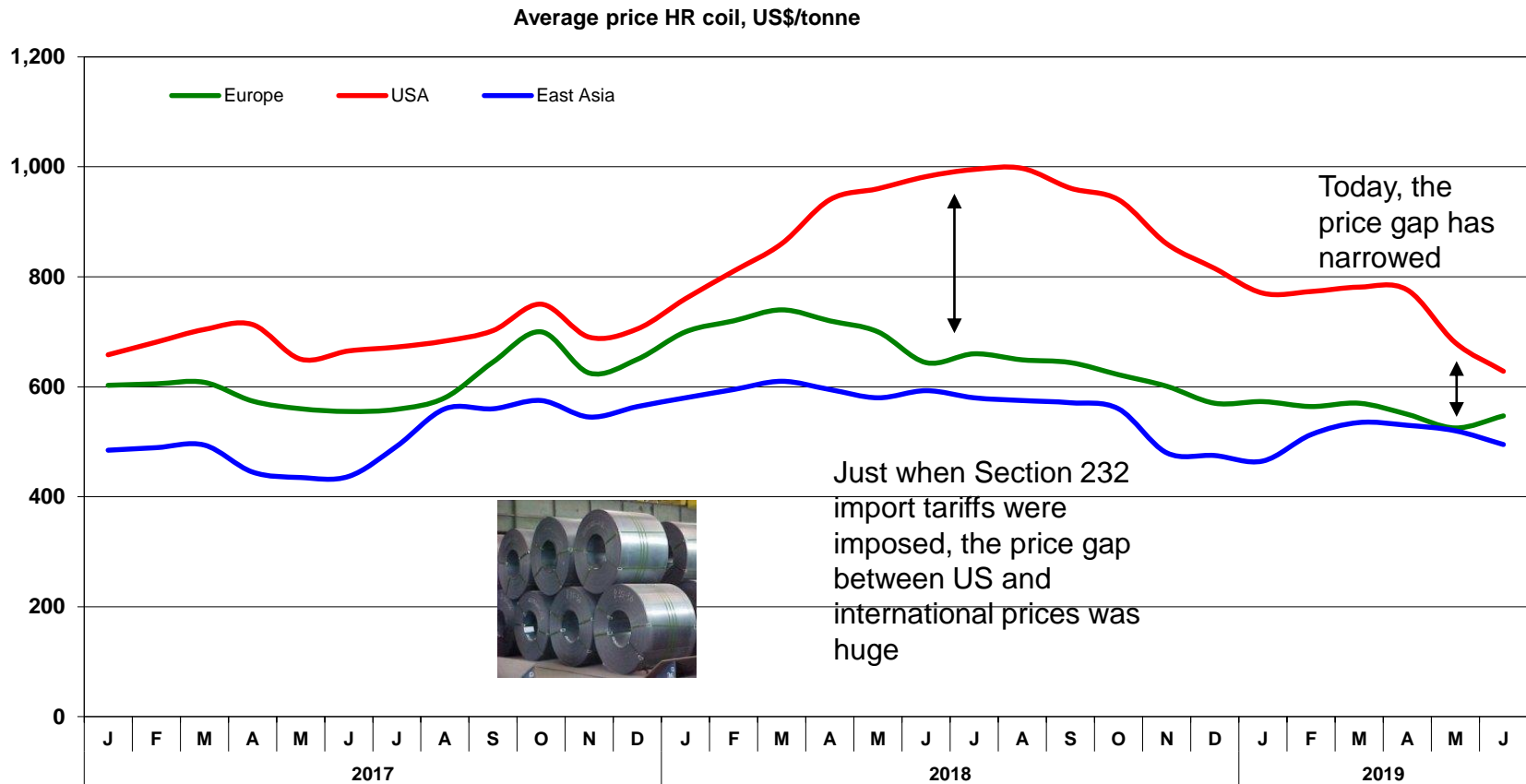
However, US flats imports remained relatively high until the beginning of the year. Exporters to the US market found some protection from the fact that many US customers could not easily switch to domestic steel, due to quality and product dimension restrictions

US flat steel products trade with 3rd countries (mln tonnes)



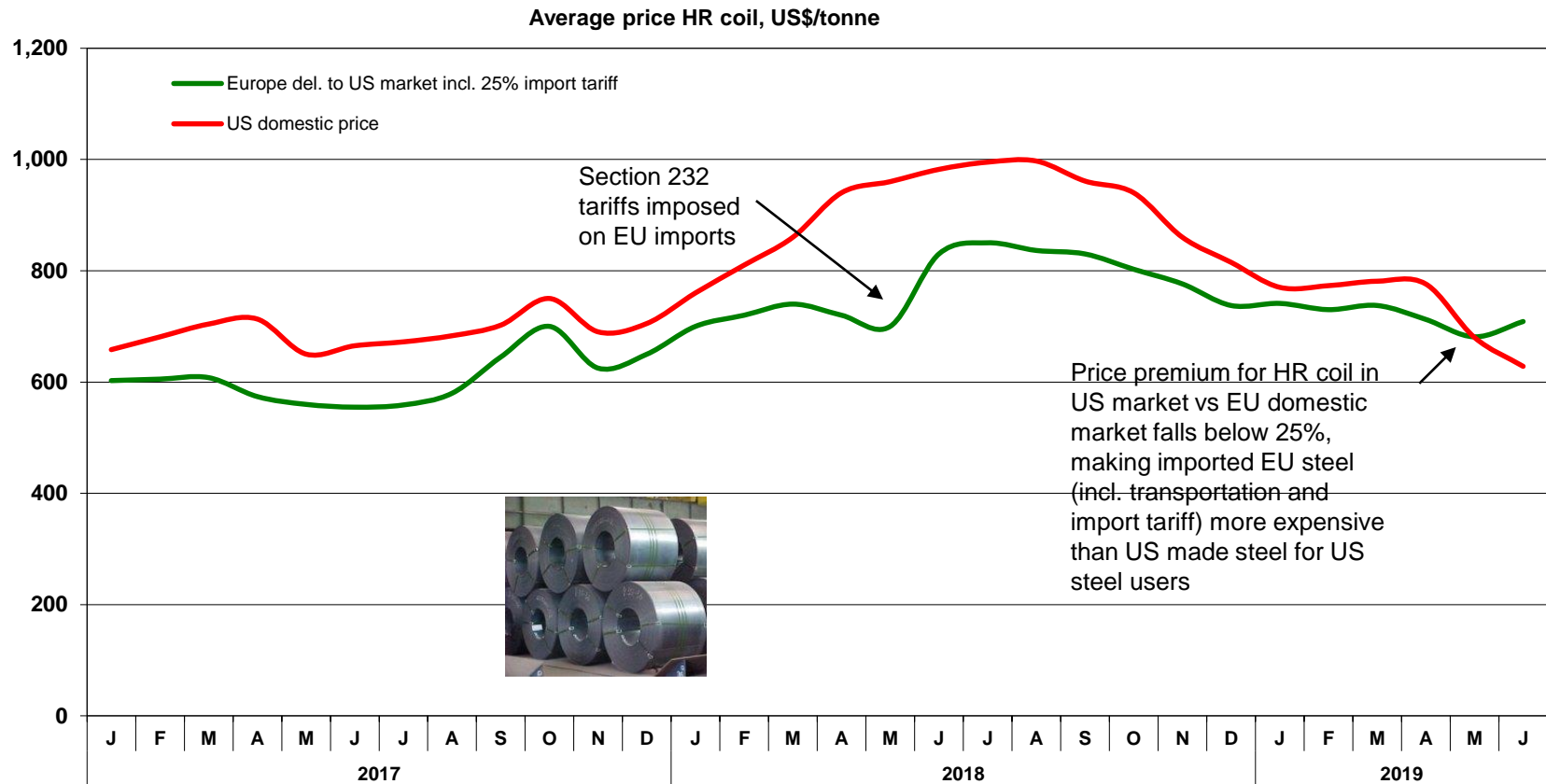
Source: WSA, SteelConsult

Prices have fallen in markets around the world. Exporters to the USA were also initially shielded from Section 232 tariffs by a huge difference between US prices and those in other parts of the world



Source: World Steel Dynamics

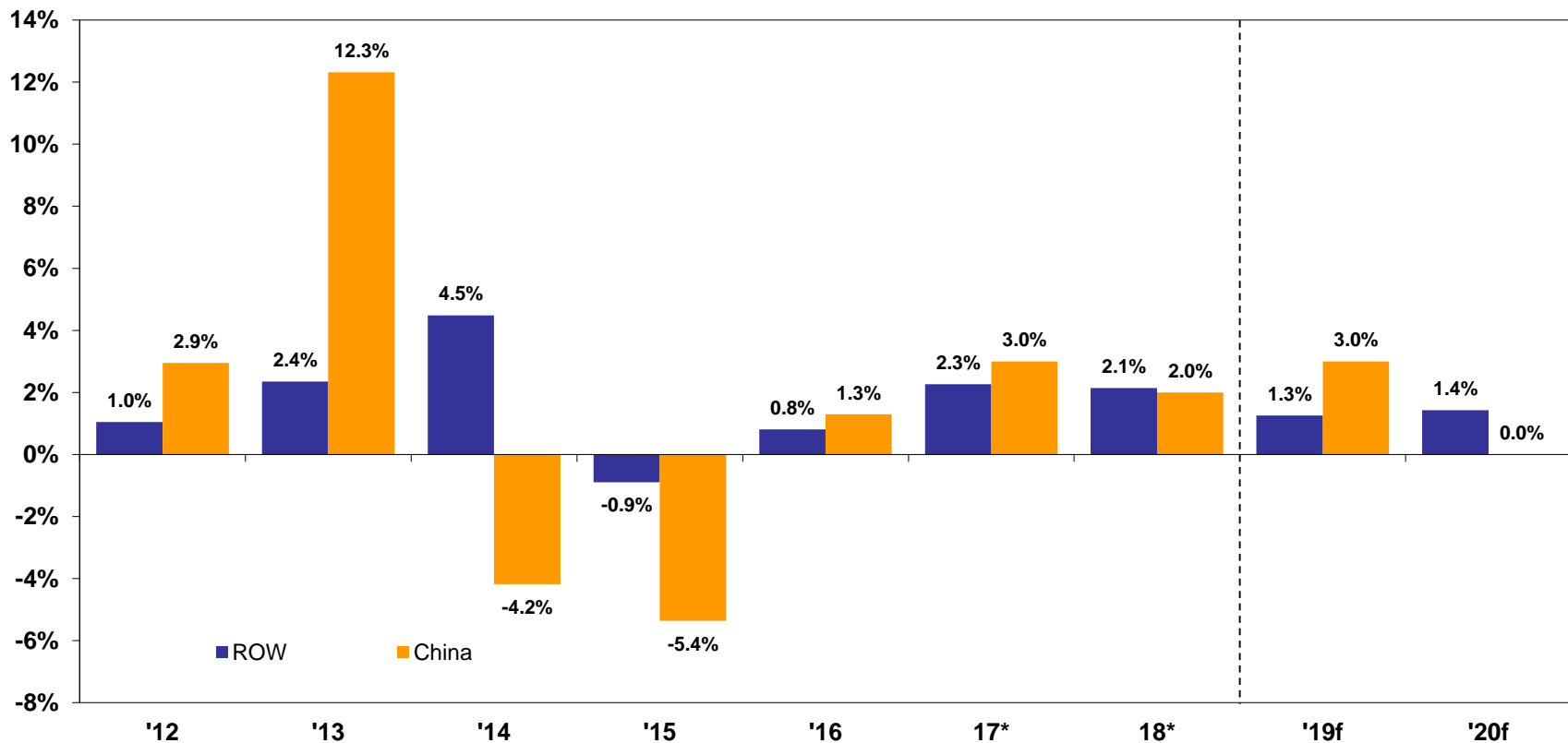
However, the gap between US and international HR coil prices has narrowed sharply in the last few months, and this means that the 25% import tariffs in the USA may start to have a stronger impact



Source: World Steel Dynamics, SteelConsult

China has stimulated domestic demand by boosting investment in infrastructure, and steel output has grown by ~10% in 2019 YTD. However, latest reports are that demand in construction and most manufacturing sectors is starting to weaken

YoY growth in steel consumption (%)

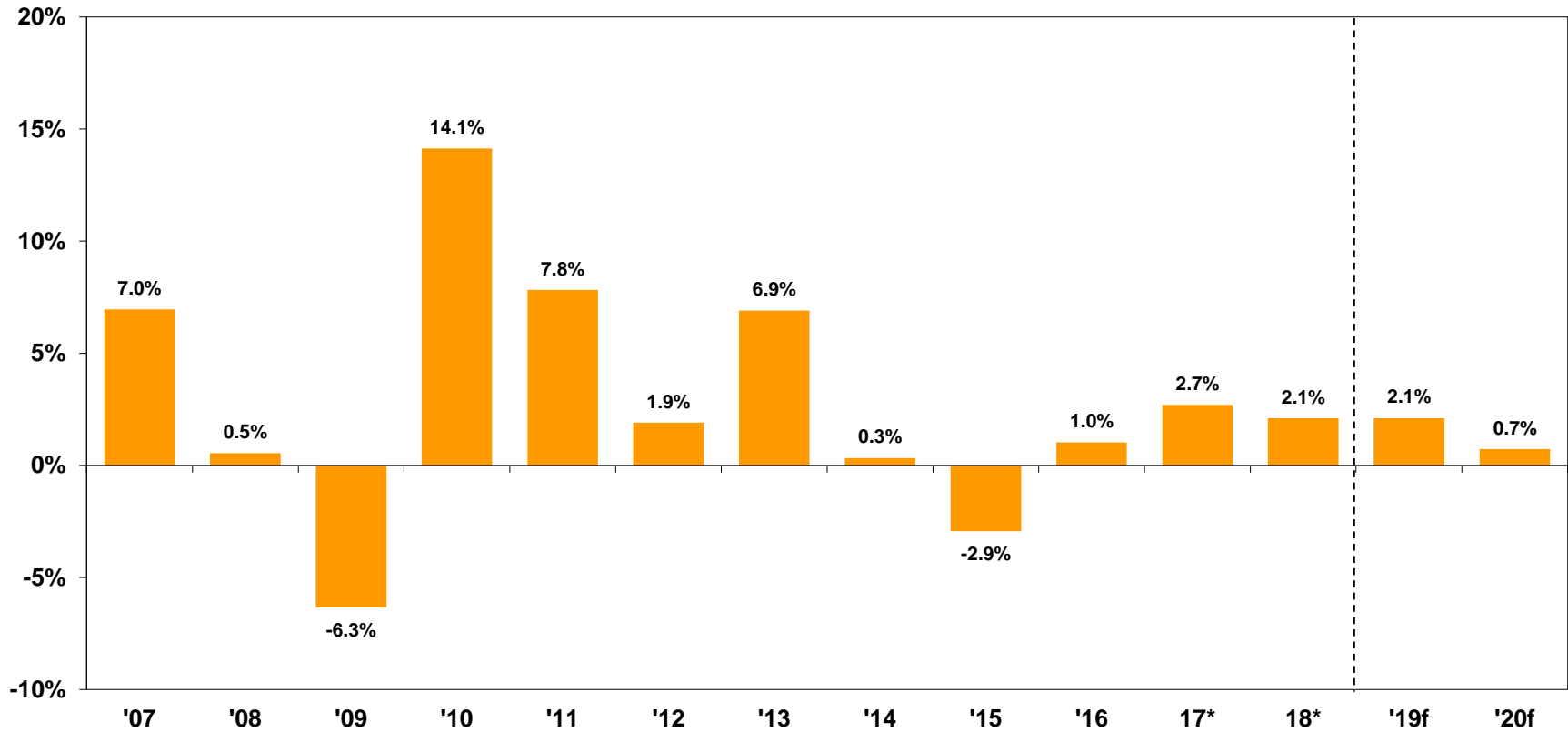


Source: WSA, SteelConsult (forecasts)

Note: *2017 and 2018 reflect real demand in China, to correct for statistical effects of induction furnace closures in China

Global steel consumption is expected to grow significantly below trend, by ~2% in 2019 and 0.7% in 2020

YoY growth in global steel consumption (%)



Source: WSA, SteelConsult (forecasts)

Note: *2017 and 2018 reflect real demand in China to correct for statistical effects of induction furnace closures in China

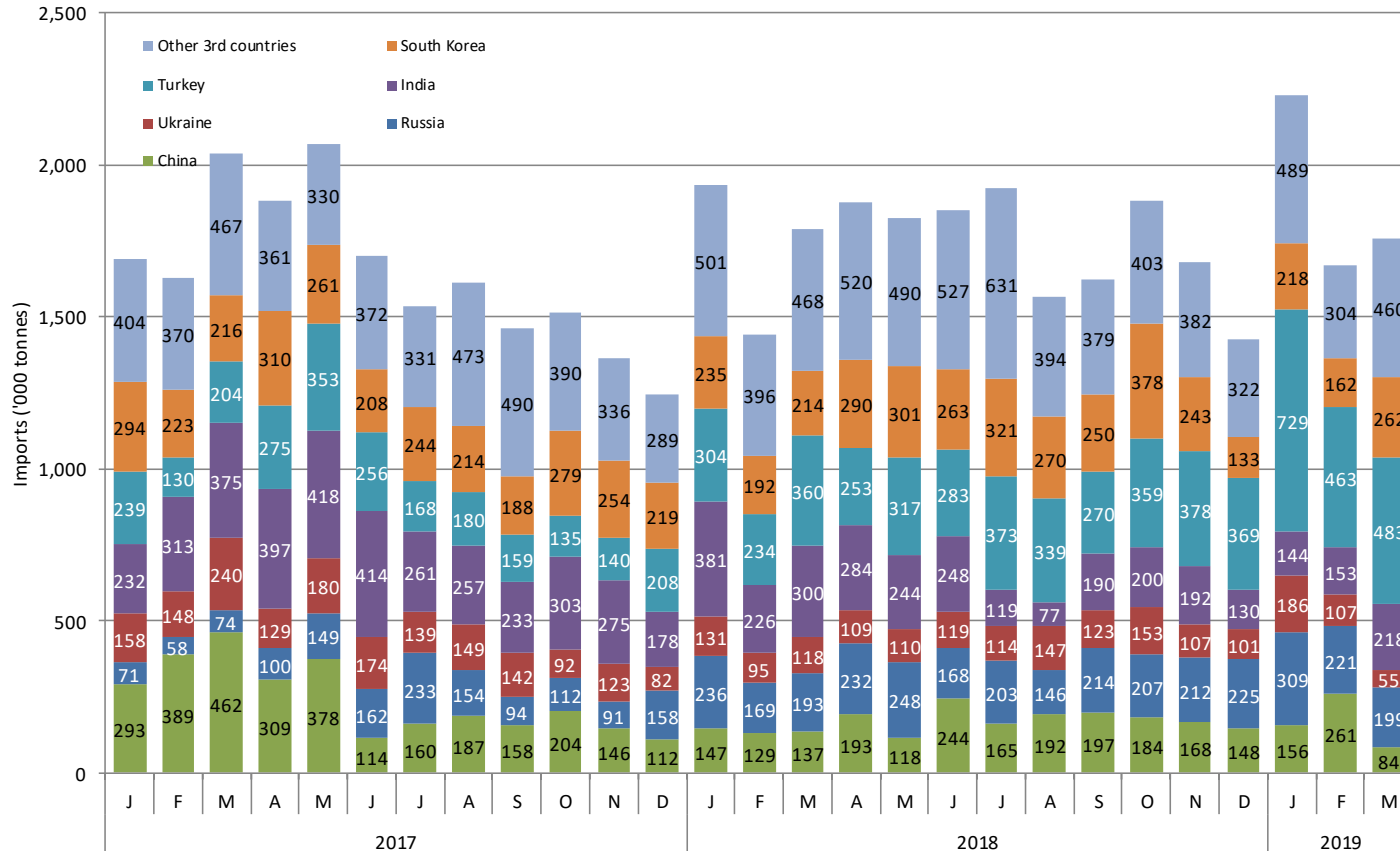
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The EU steel industry has been hit by a perfect storm: Imports have risen sharply in the beginning of the year, esp. for flat products



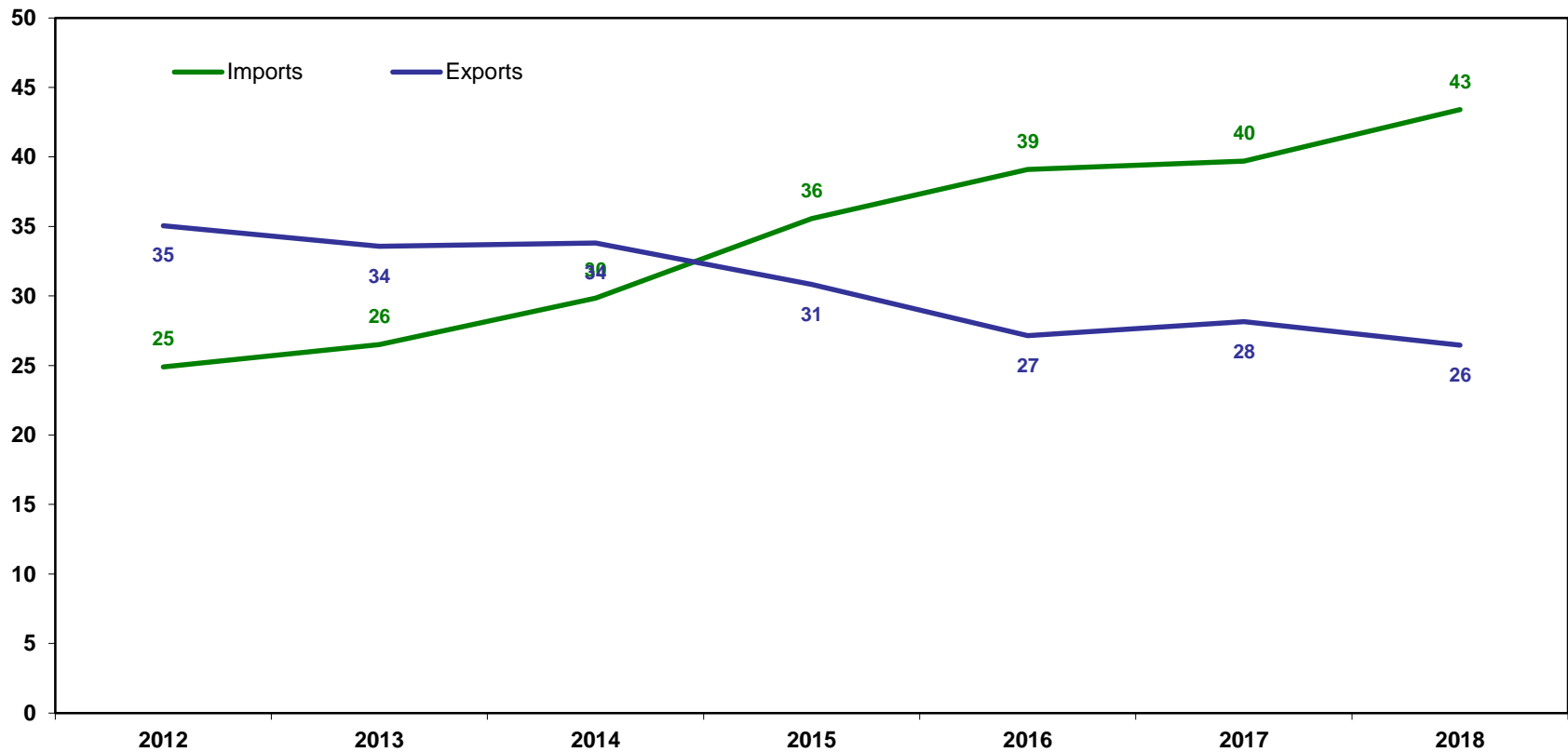
3rd country imports of flat products* into the EU-28 by origin



Source: ISSB
 Note: * Flat products incl. HR, CR, Electrical steel, HDG, EG, OCS, tinplate and Plate, excl. STS

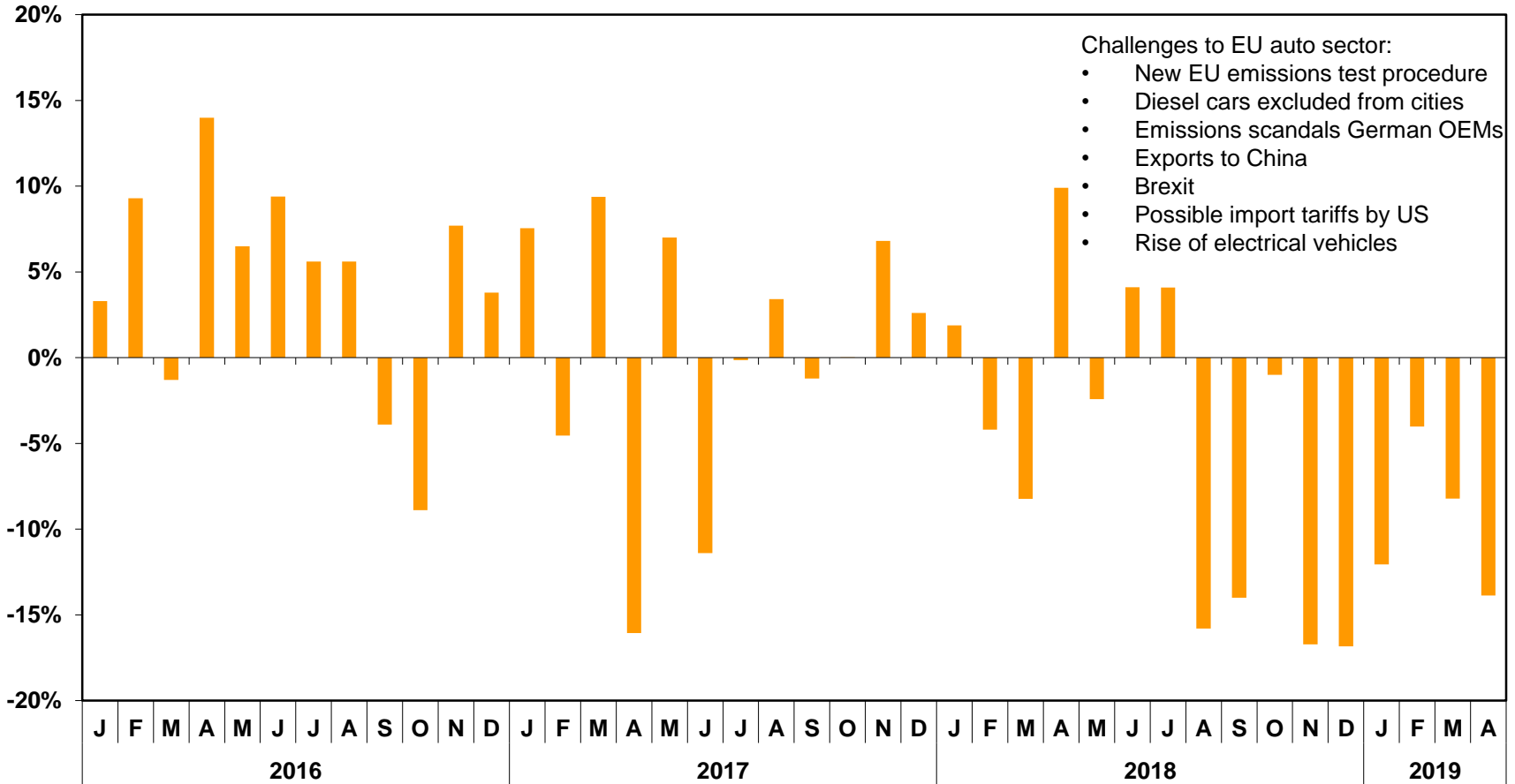
Meanwhile, exports have declined, though less than feared as a result of the Section 232 measures imposed by the USA in 2018

EU steel trade with 3rd countries (mln tonnes)



The EU steel market has been hit by weakness in the EU automotive sector, which has dropped by 10% YoY in 2019 so far

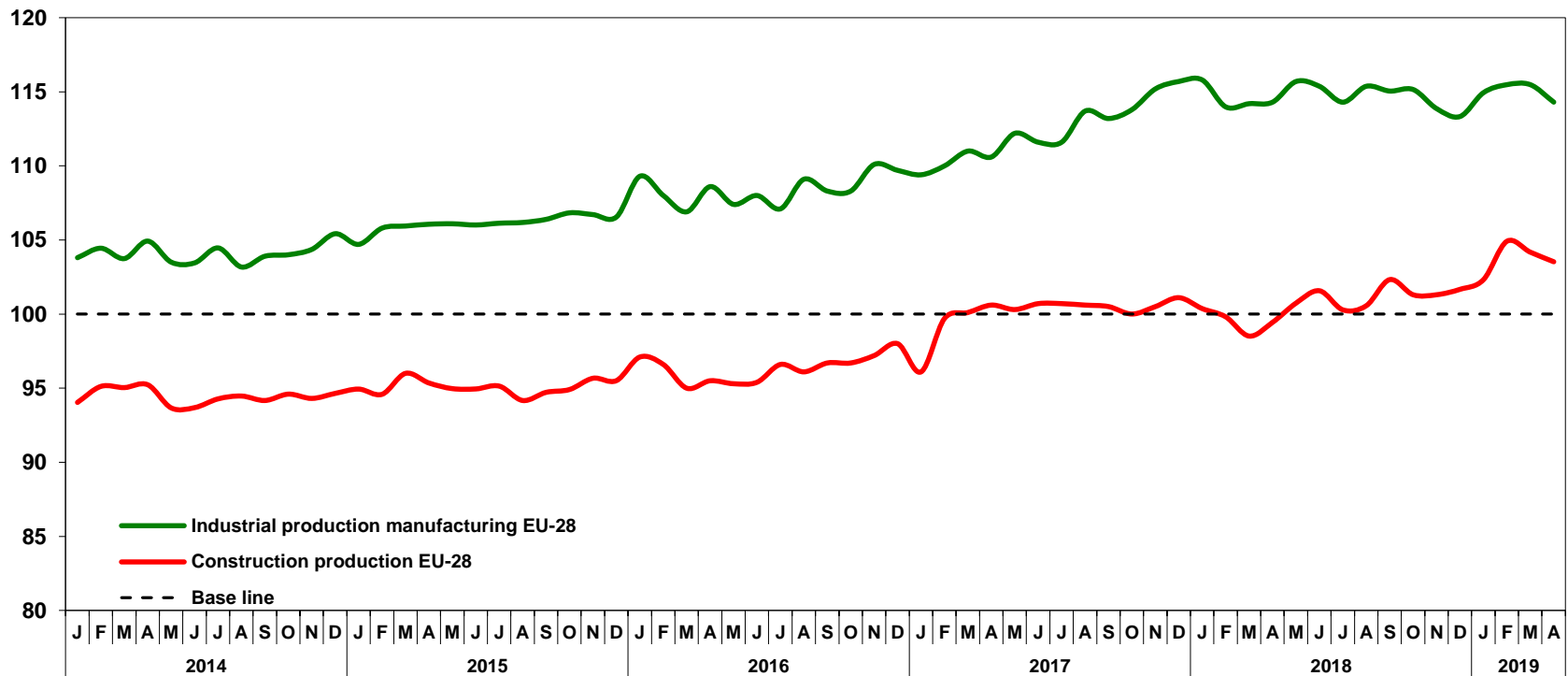
Passenger car output of main EU producing countries (% YoY growth)



Source: SteelConsult analysis

Fortunately, whilst industrial production is weakening, construction is still holding up well

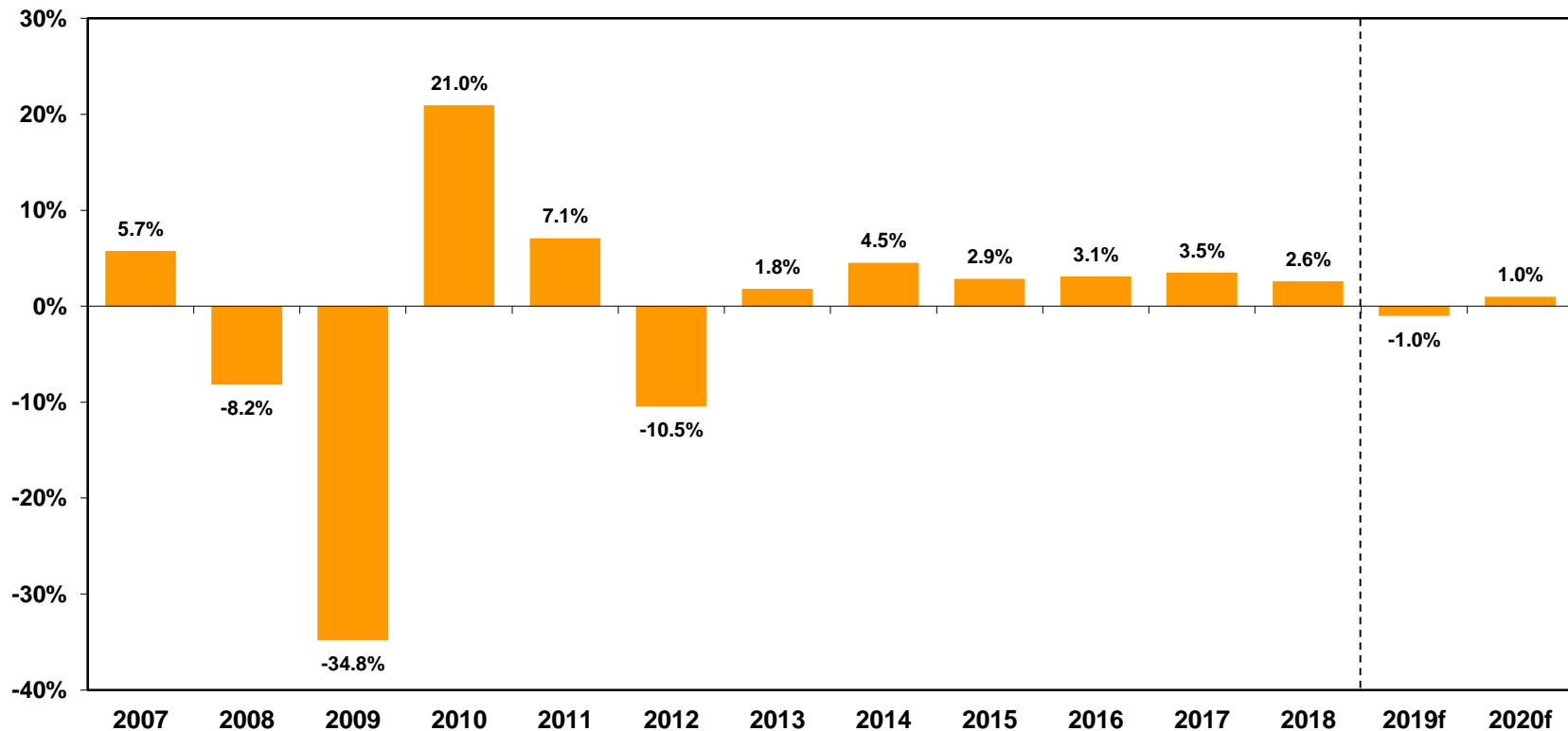
Leading economic indicators EU (Index 2010=100)



Source: Eurostat

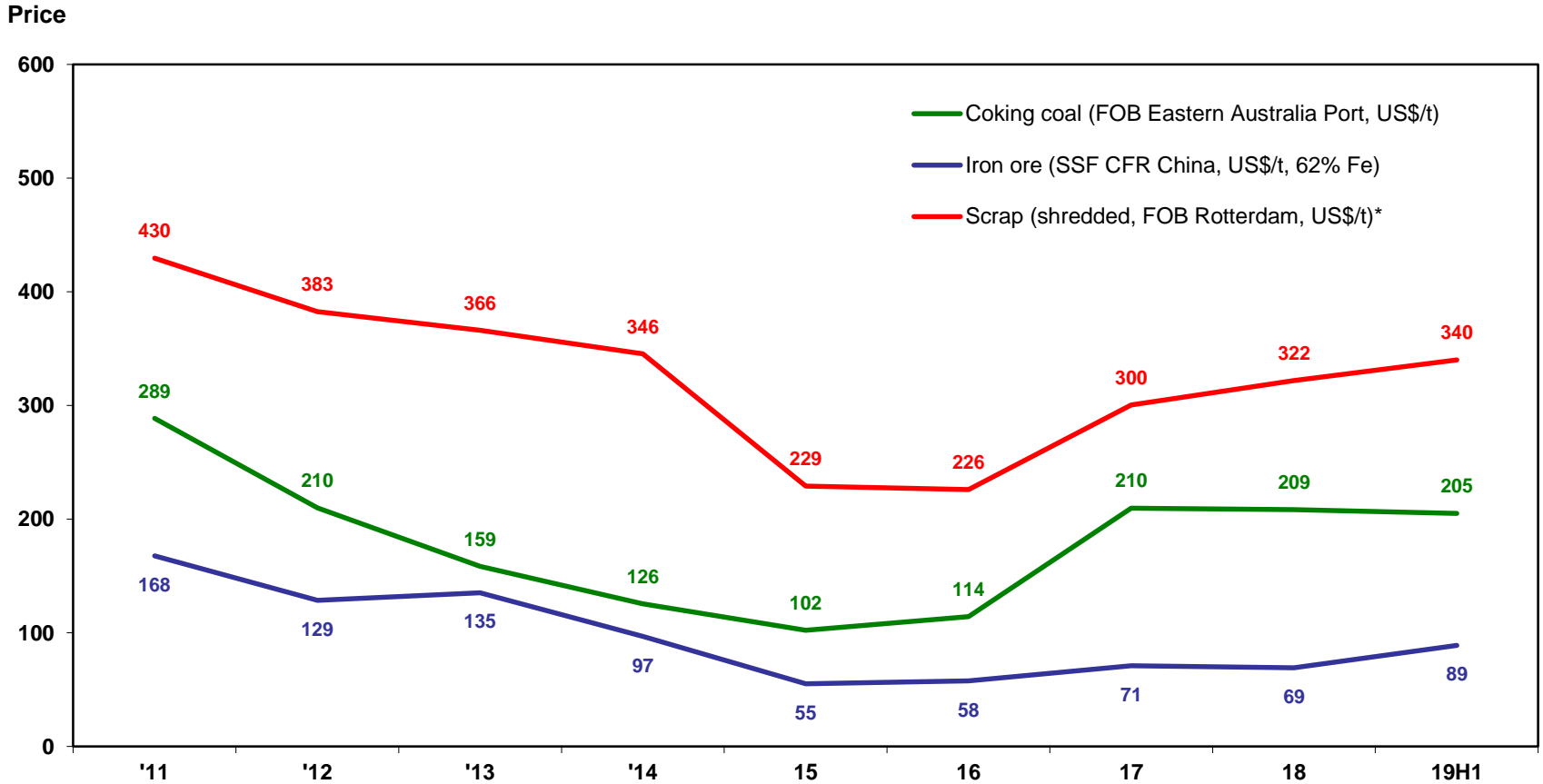
Growth in steel consumption in Europe is expected to decline by 1% YoY in 2019, and remain modest in 2020

Growth in steel consumption Europe* (YoY % change)



Source: Eurofer, WSA, SteelConsult
Note: *Excl. Turkey

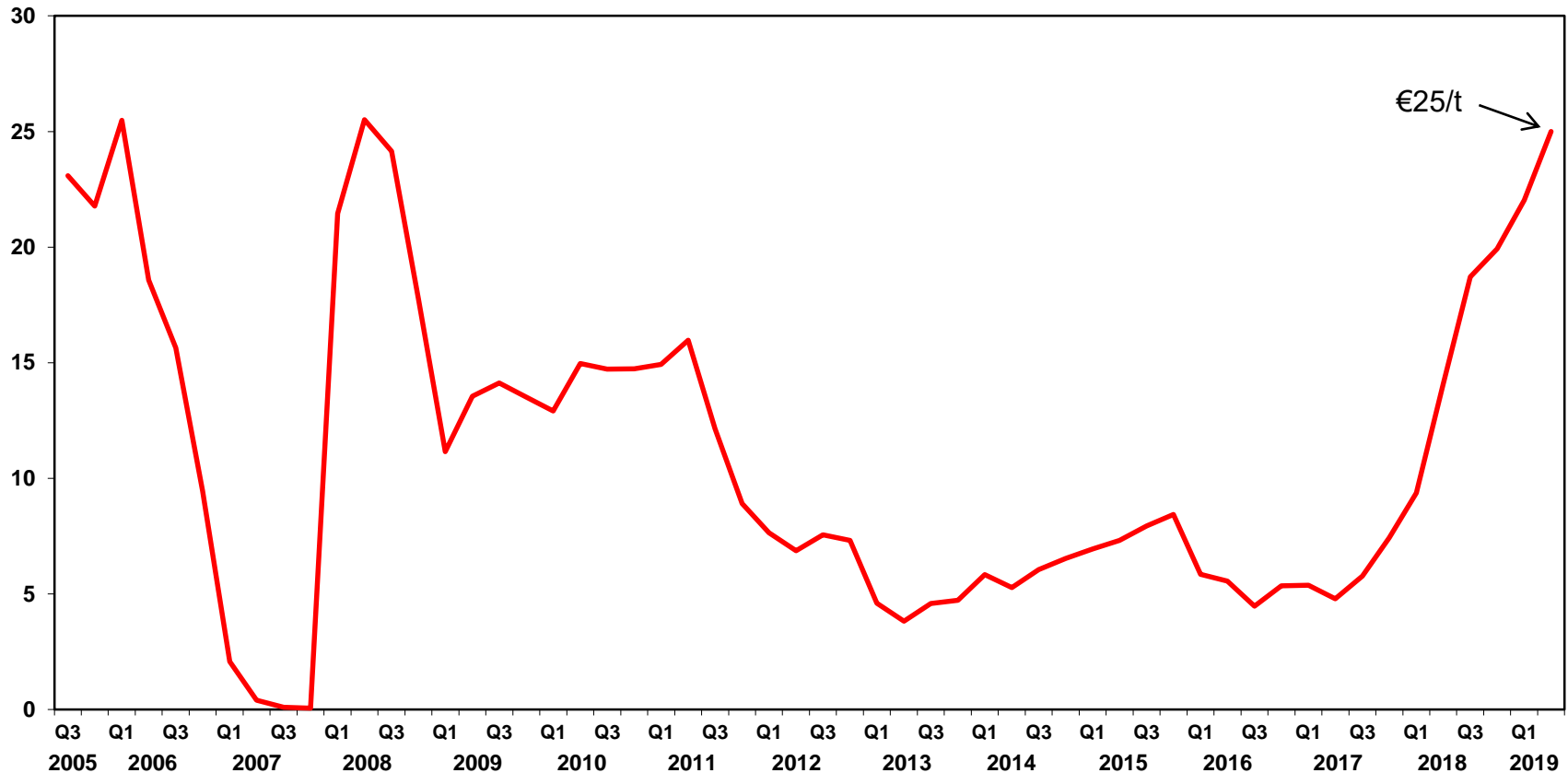
Steel mills are also facing rising raw materials costs...



Source: SteelConsult analysis

Finally, CO₂ prices have surged sharply in the last year, as Phase IV of the ETS approaches, and currently amount to €25/t of CO₂ vs just €5-8/t a year ago

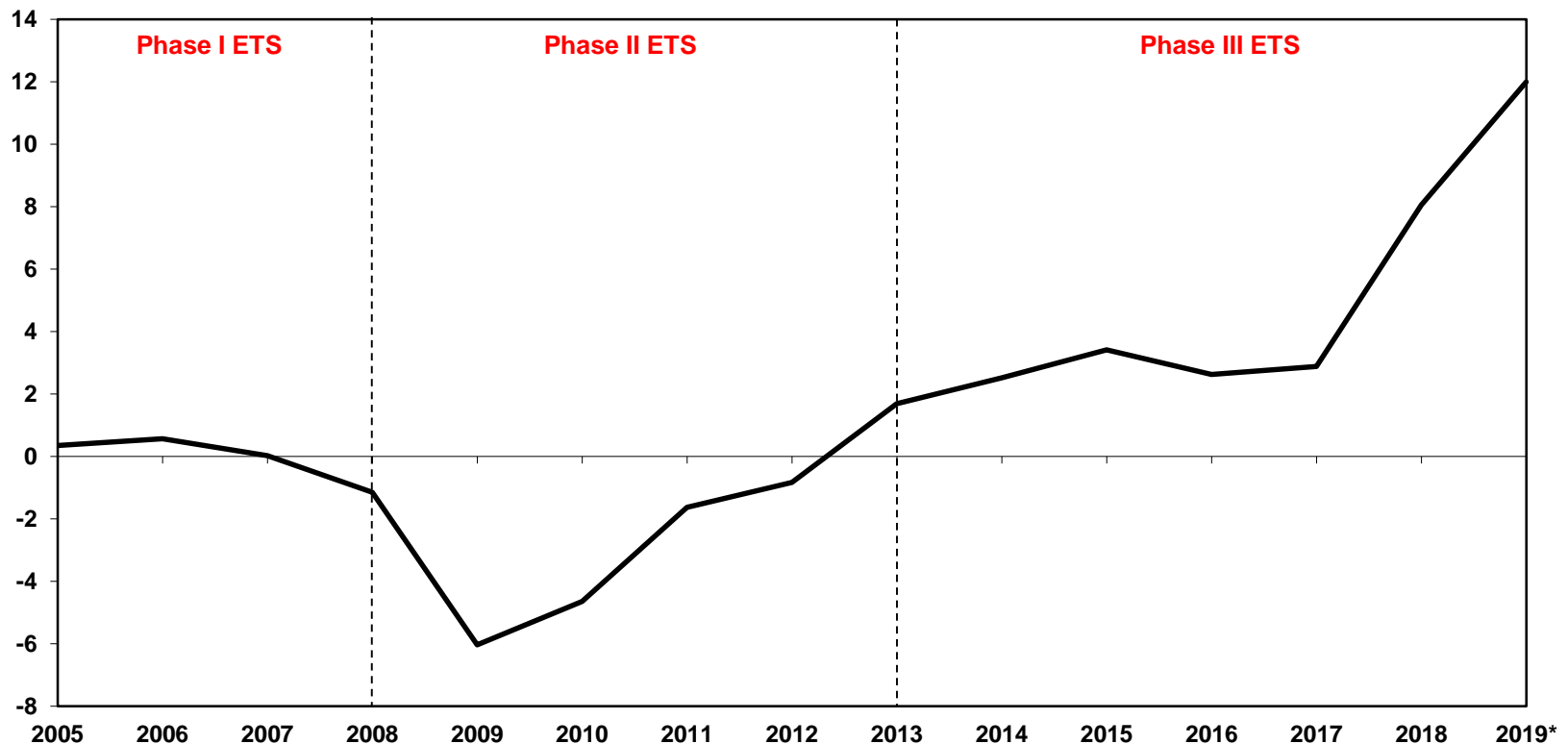
Spot carbon emission price ETS (€/t CO₂)



Source: EEX

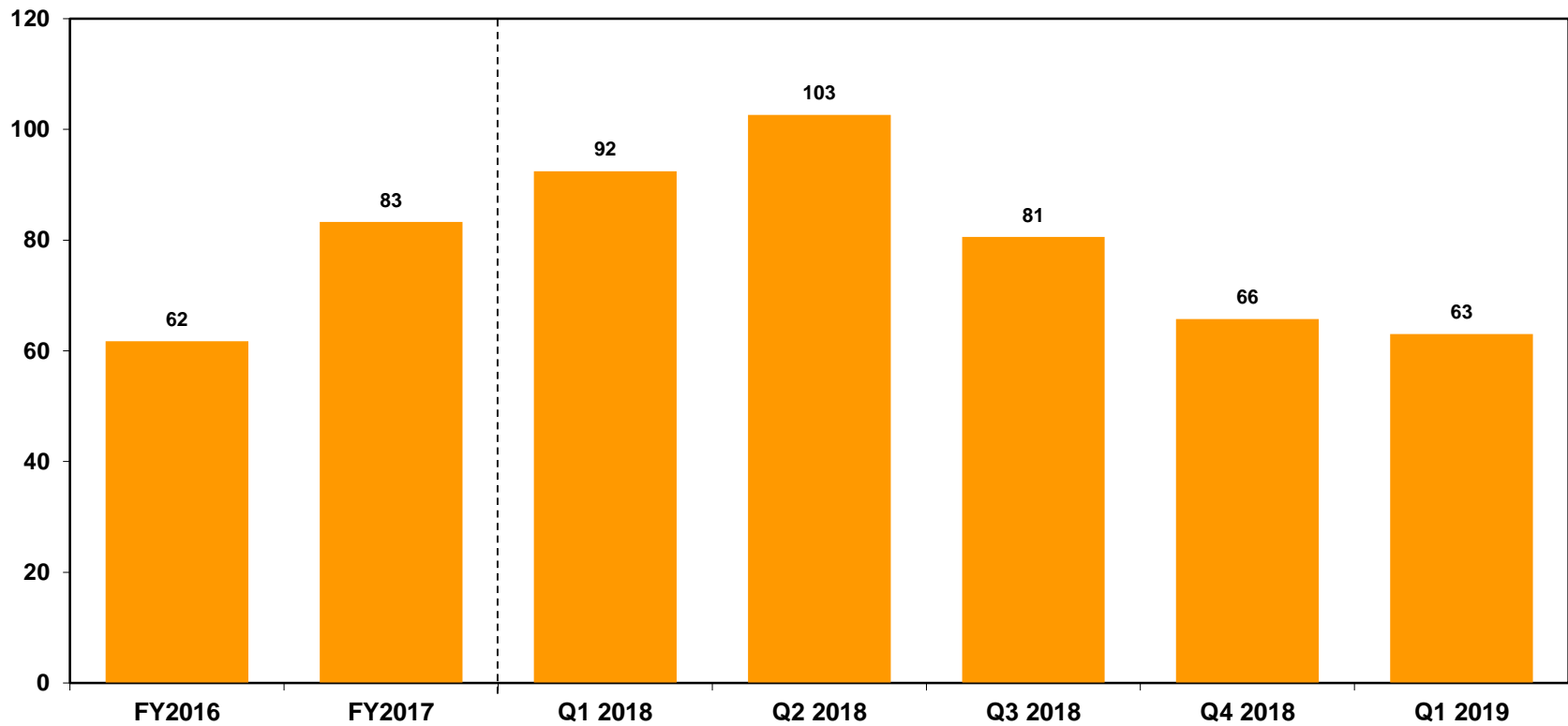
CO₂ emissions costs have now already increased to ~€12/t for each tonne of steel on average in H1 2019, and are starting to hurt

CO₂ emissions costs, average of integrated EU steel mills (€/t crude steel)



As a result of all these factors, EU steel industry profitability has fallen sharply since the peak in Q2 2018

Average EBITDA margin EU steel industry (€/t crude steel)



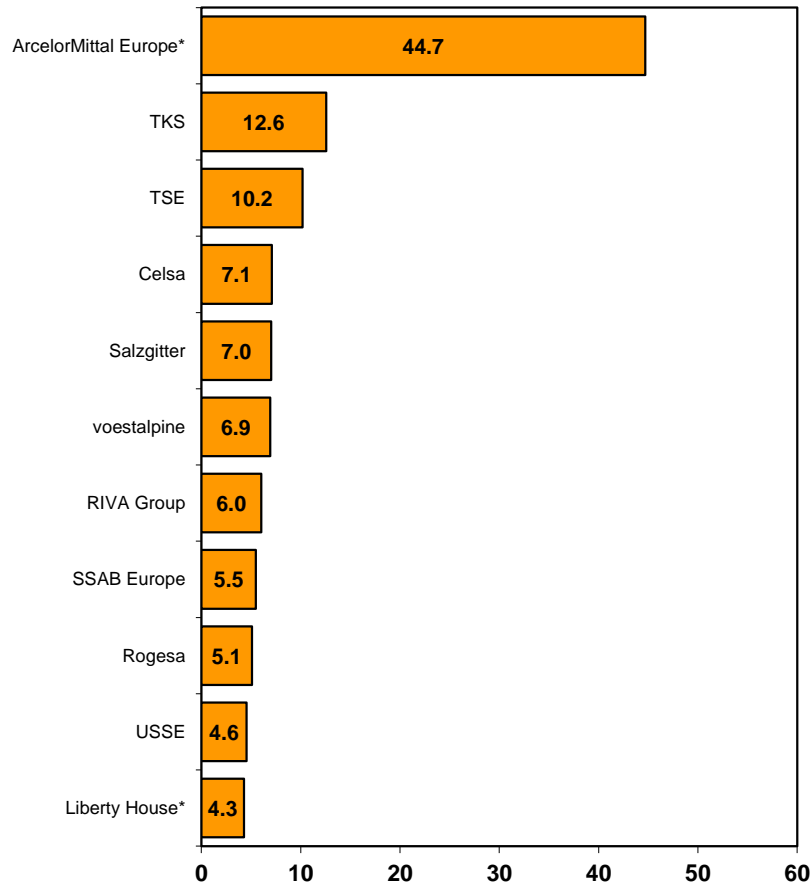
Source: SteelConsult analysis

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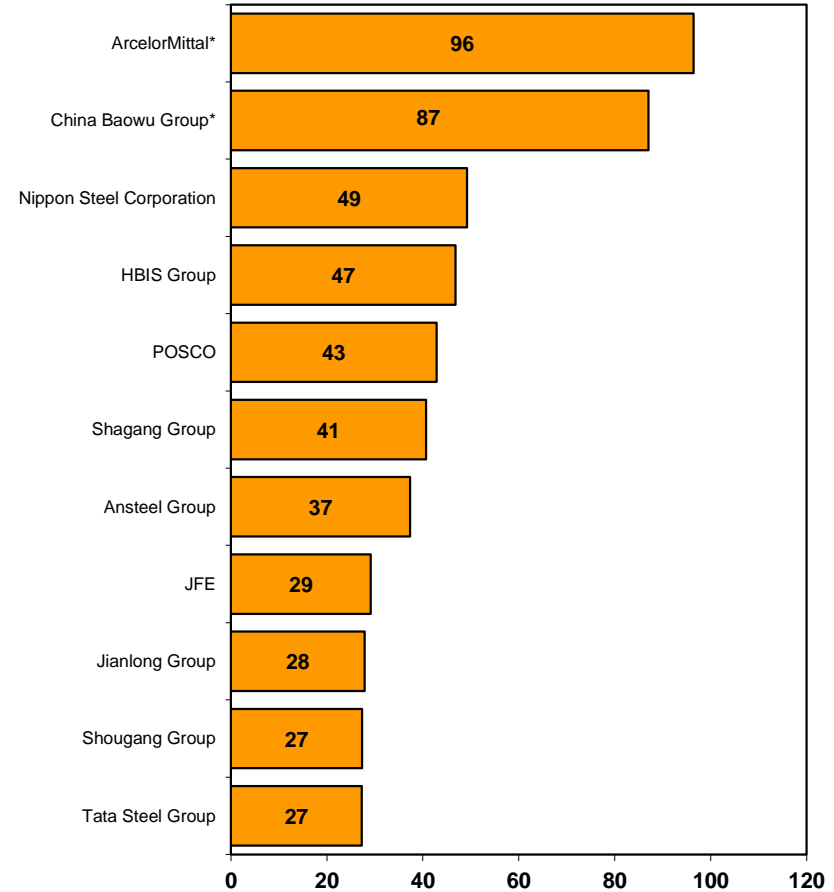
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The takeover of ILVA by AM has not changed the competitive shares in the EU steel industry, and the planned merger between TKS and TSE collapsed. Meanwhile, consolidation in Asia is progressing

Crude steel output Top-11 mills EU, 2018 (mln tonnes)



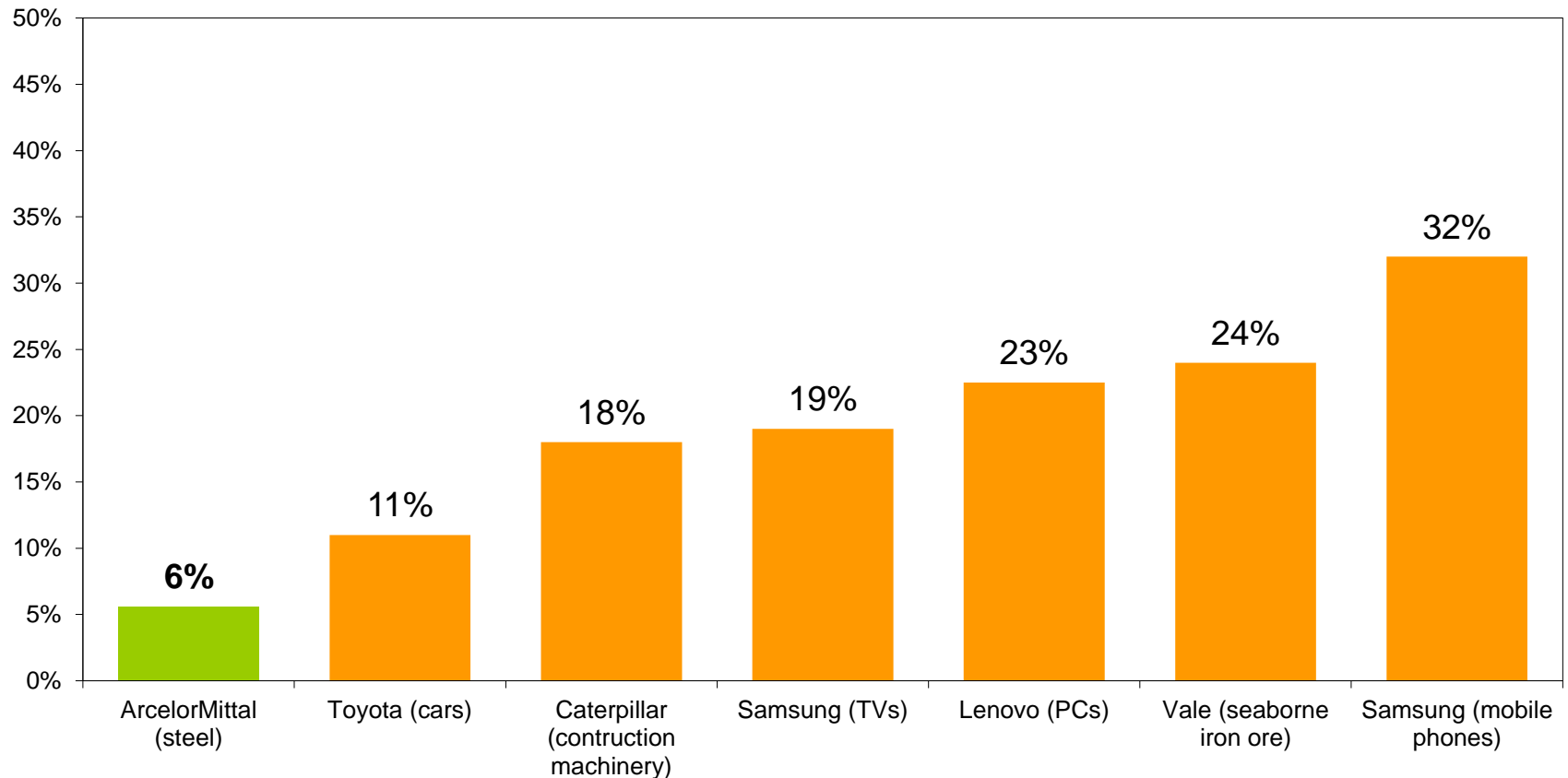
Crude steel output Top-11 mills, 2018 (mln tonnes)



Source: WSA, SteelConsult
 Note: *Proforma

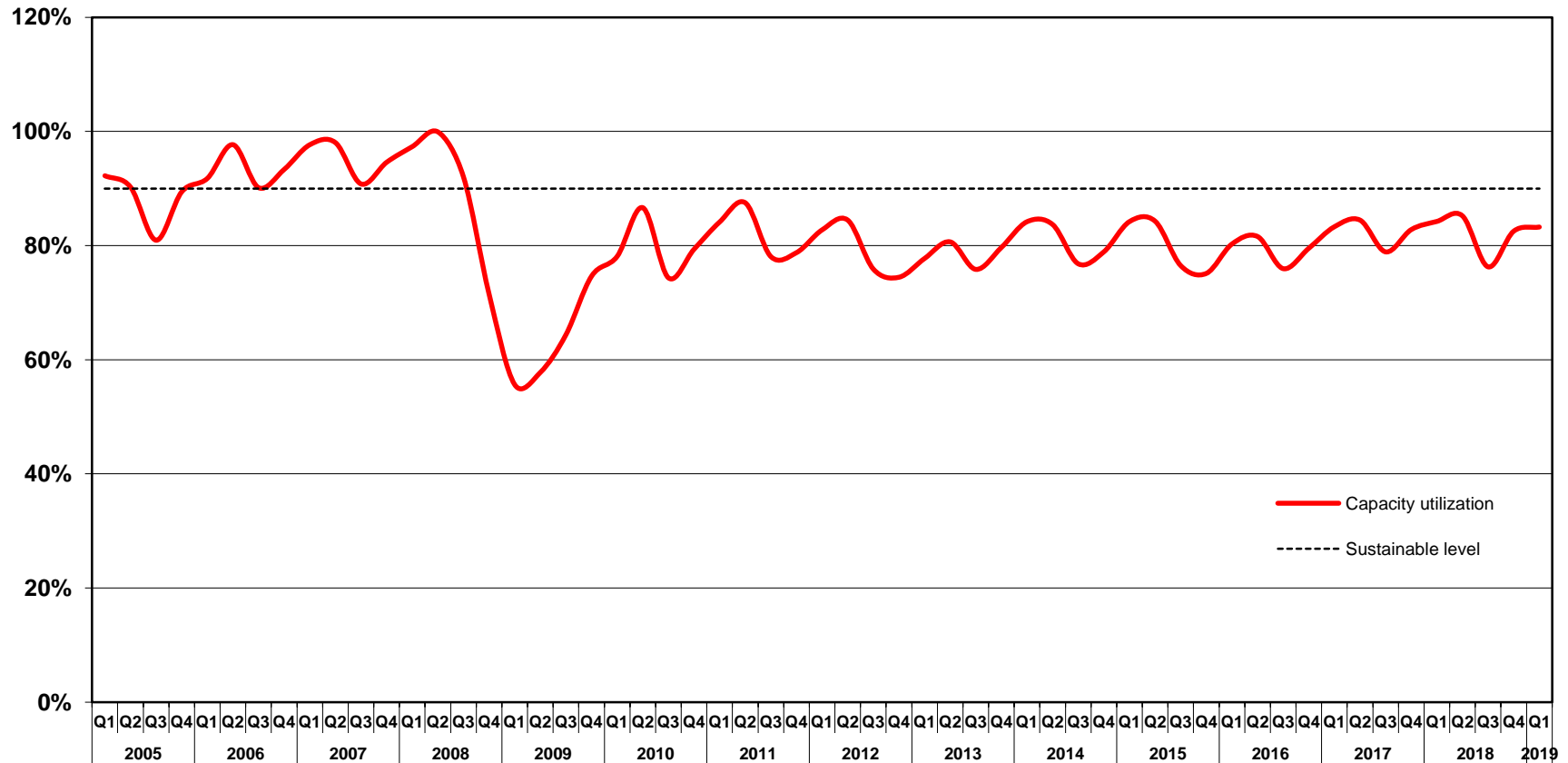
Steel mills are still not particularly large players compared to leaders in other industries, where market leaders account for ~20% or more of the global market...

Global market share industry leader 2018



Consolidation not only increases scale vs suppliers, users and competitors, but also facilitates reduction of overcapacity and enables effective supply responses to changes in demand. The EU steel industry still has ~10 mln tpy of overcapacity in today's market

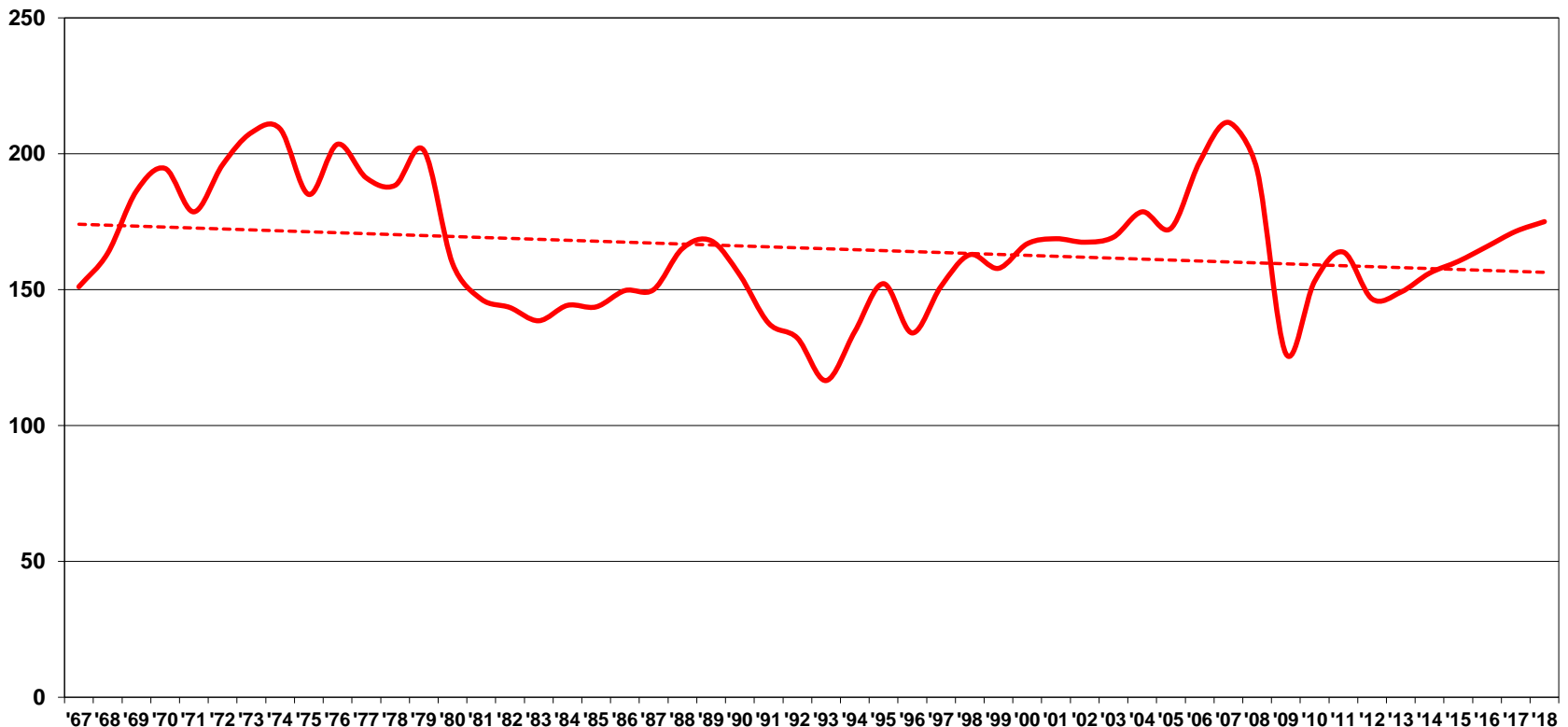
Crude steel capacity utilization EU steel industry



Source: WSA, SteelConsult analysis

The European steel market is mature and, despite the current upturn, it declines by 0.3% per year on average over the long term. Structural overcapacity is considerably higher than 10 mln tpy

Finished steel consumption Europe (mln tonnes)



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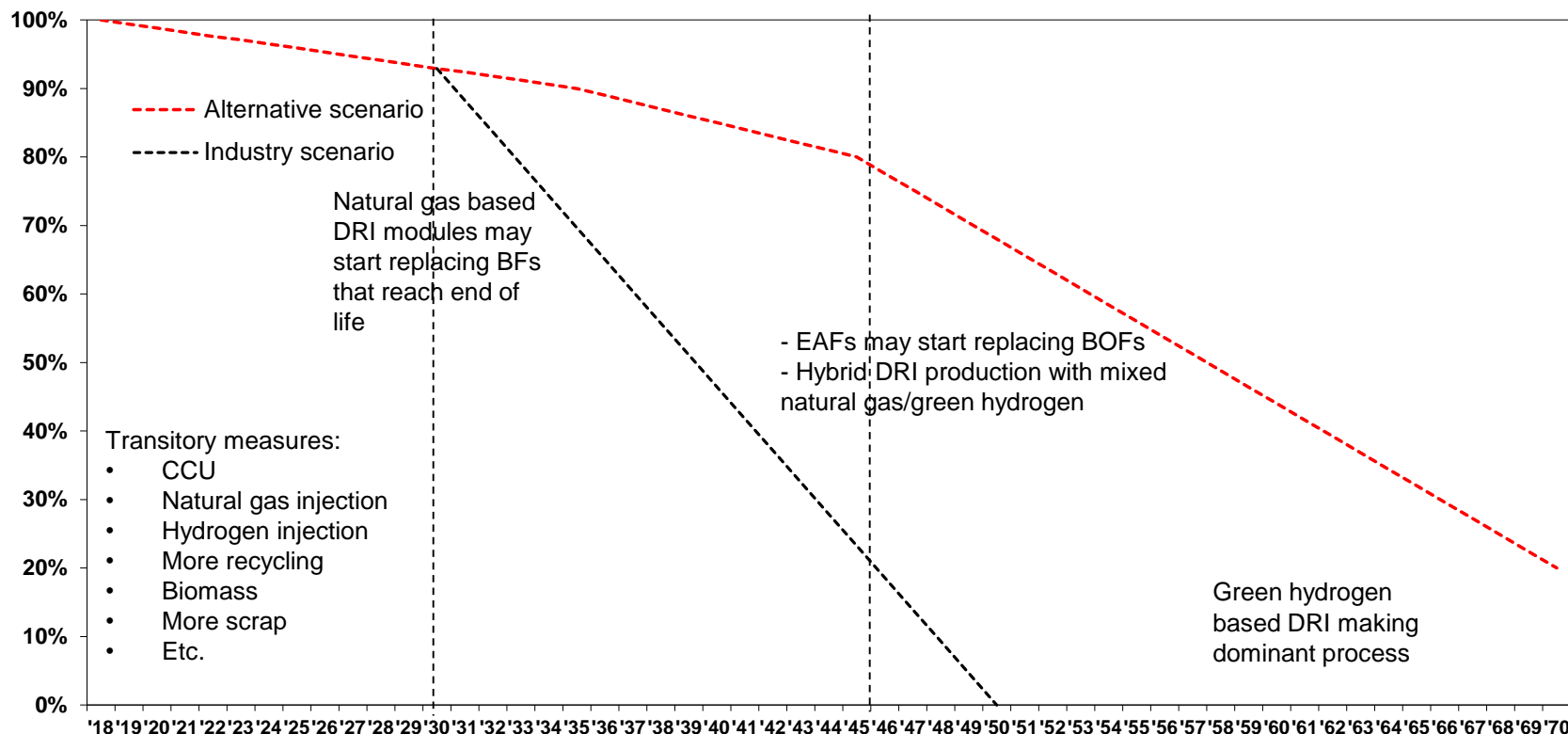
Since the end of ULCOS, EU mills have been developing their own initiatives and are following different paths towards carbon reduction: Carbon Direct Avoidance (CDA), Green hydrogen production, Carbon Capture and Use (CCU) and Carbon Capture and Storage (CCS)

| | Carbon Direct Avoidance (CDA) | Green hydrogen production | Carbon Capture and Use (CCU) | Carbon Capture and Storage | Carbon neutrality aim | |
|-------------------------|-------------------------------|----------------------------------|------------------------------|----------------------------|------------------------------|------|
| SSAB | HYBRIT | | FReSMe | | 2045 | |
| voestalpine | SuSteel/DRI | H2Future | | | Replacement of BFs from 2035 | |
| Salzgitter | SALCOS | GrInHy/Salzgitter Clean Hydrogen | SALCOS | | | |
| Tata Steel IJmuiden | | Hisarna | Green cluster Amsterdam | FReSMe/ Steel2Chemicals | Hisarna | 2050 |
| TKS | | IN4climate | Carbon2Chem | | ->80% by 2050 | |
| ArcelorMittal Gent | | | | Steelanol/ Steel2Chemicals | | |
| ArcelorMittal Fos | | | | Carbon4PUR | | |
| ArcelorMittal Hamburg | Grey hydrogen in DRI | | | | | |
| ArcelorMittal Dunkerque | | IGAR | | | | |

Source: SteelConsult

Scenarios of decarbonization in EU steel industry: The challenges are huge, esp. to realize sufficient and reliable availability of competitively priced green hydrogen

CO2 emissions EU steel industry (% current levels)



Source: SteelConsult

Thank you for your attention!



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