

A hand in a white lab coat pointing forward, with various circular icons overlaid on a futuristic background. The icons include a document, a computer monitor with a wrench and screwdriver, a waveform graph, a bar chart, a power button, a cursor arrow, a power button, and a bar chart. The background features a grid of hexagons and arrows, suggesting a digital or scientific environment.

Let's talk about the future

TATA STEEL

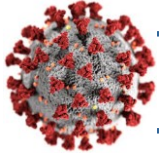
22 October 2020

Compliance notice

- This event has participants from companies that are competitors with one another
- We need to remember that it is, at all times, forbidden for competitors to discuss and share competitively sensitive information, including information about their:
 - Current or future pricing
 - Current or future costs
 - Current or future output and capacity levels
 - Sales efforts directed at present or prospective customers or customer groups
 - Marketing and strategic plans not already in the public domain



3 Key Issues to be Discussed



COVID 19 – Impact on the Steel Supply and Demand



Sustainable Steel



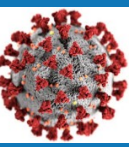
Steel 4.0 – Digitalisation and AI

2020: Maneuvering with reduced visability



Covid-19: World GDP: Recession 2020 stronger than the Financial Crisis 2009

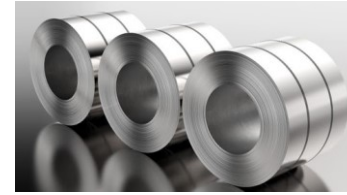
Will macroeconomic forecasts and the financial crisis give us guidance?



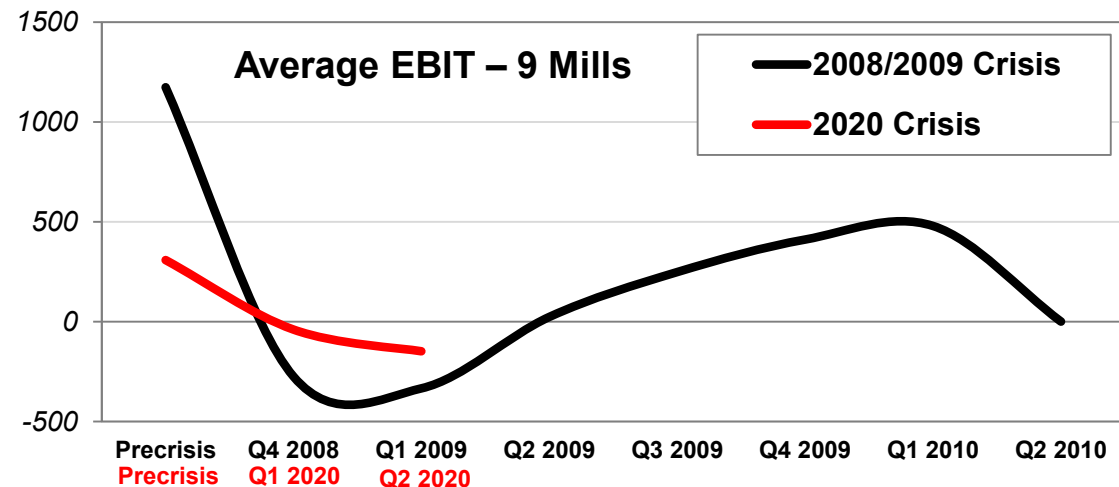
World GDP growth 2020

% change on previous year

	April Forecast	May Forecast	Current Forecast
Real GDP			
North America			
United States	-4.1	-13.2	-7.2
Canada	-6.5	-14.5	-6.4
Europe			
Eurozone	-5.0	-12.0	-6.9
Germany	-3.9	-11.8	-5.3
France	-5.3	-12.2	-4.1
Italy	-7.6	-14.0	-9.4
UK	-5.1	-10.0	-7.1
EU27 incl UK	-4.8	-11.3	-6.9
Asia			
Japan	-4.8	-13.8	-7.9
Emerging Asia, excl Japan	-0.5	-6.7	0.5
China	-0.2	-5.2	3.0
India	-1.0	-7.6	6.3
World	-2.8	-10.6	-4.5
Commodity Prices			
Brent Oil (\$/bl)*	29.9	34.4	37.8



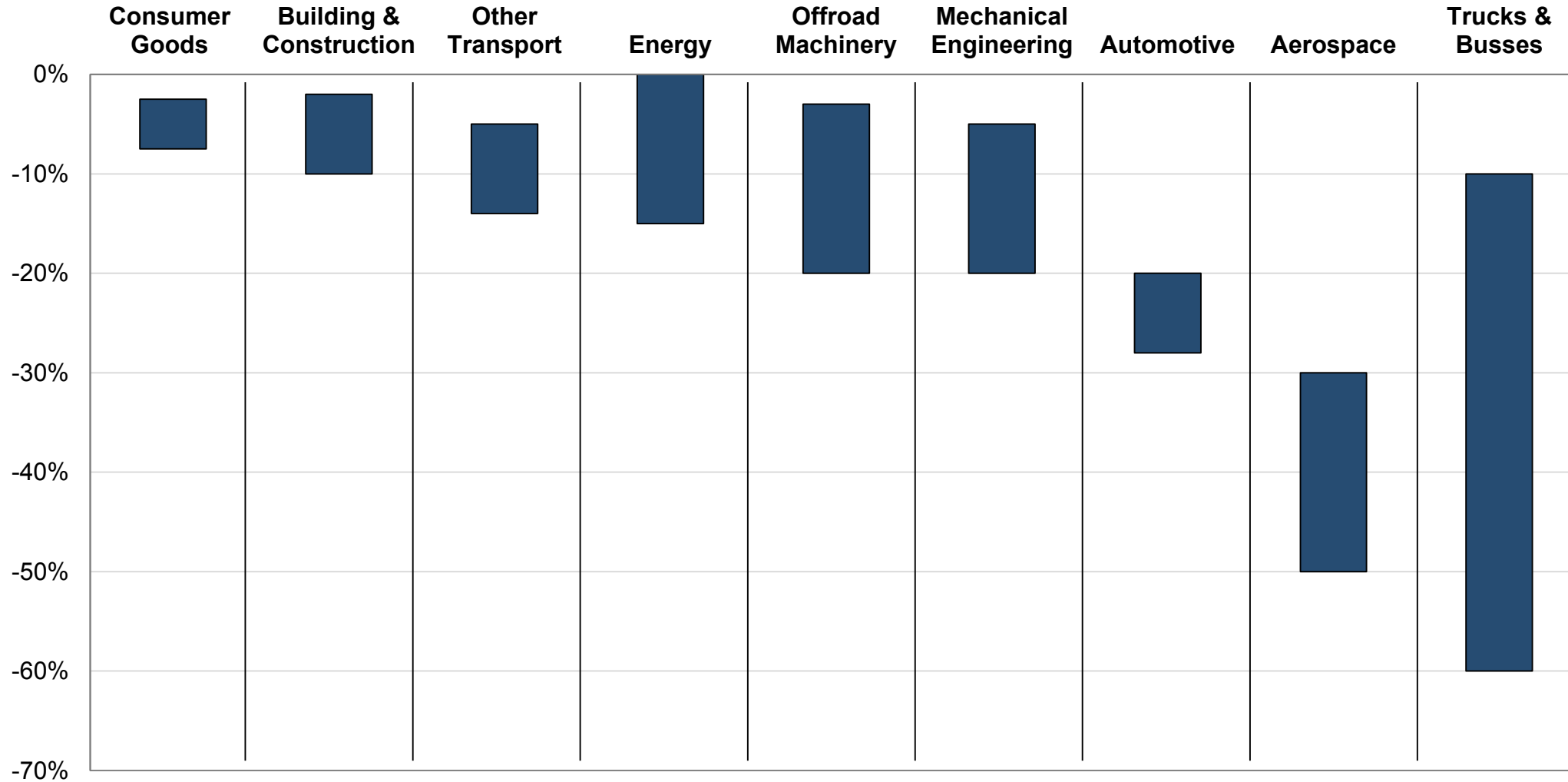
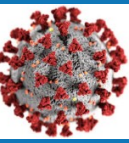
Region	2019	2020e	Change	Share	
	In [mill. Tonnes]			[%]	
China	993	1,055	6%	54%	58%
ROW	848	755	-11%	46%	42%
Total World	1,841	1,810	-2%	100%	100%



Source: IMF / OEF / Status October 2020

Covid-19: Global Impact on various Industry Segments (outside China)

The impact varies from very hard (Trucks -33% average) to virtually none (Renewable Energy (+8%))



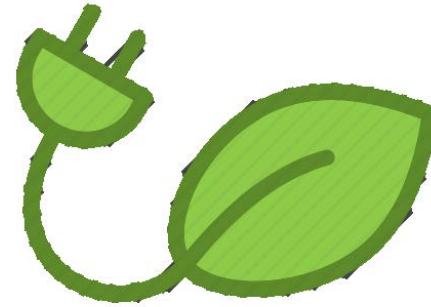
Source: worldsteel.org, OEF, KGP Automotive Intelligence, IMS Markit,



1.85 t / tonne

**MATERIAL
EFFICIENCY**

>96%



20 GJ / tonne



83% recycled

Steel 4.0 (Digitalization and AI)

Enormous opportunities to improve efficiency, sustainability and safety in the steel industry



Internet of Things

Digital Twins

Big Data Analytics

Cloud Computing

Robots

Predictive Maintenance

Cyber Security

Augmented Work

Self Driving Vehicles

Digital Customer Access

Production Line Simulation

Self-organizing Production