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ECONOMIC AND STEEL MARKET OUTLOOK 2021-2022

Introduction

The COVID-19 pandemic slashed steel consumption forecasts and the overall economic outlook across the EU. Shutdown measures implemented by governments that began in earnest in March 2020 severely impacted manufacturing activity and steel-using industrial sectors. However, some of the measures that had the greatest impact on the economy were loosened as of June 2020, though many measures remain in effect or have been reinforced in recent months EU steel market overview EU28 apparent steel consumption fell (-11.6%) year-on-year in the third quarter of 2020 (that is for the seventh consecutive quarter, after an unprecedented drop (-25%) in the second quarter) and amounted to 32.8 million tonnes. The volume for the third quarter 2020, albeit higher than the record low seen in the second quarter, reflects the unprecedented deterioration in steel demand due to the severe disruption brought by the Covid-19 pandemic, in addition to the negative factors that had materialised in the preceding quarters and had already led to a sharp, continued reduction in steel consumption. As a result, the downturn in steel demand led to the eighth consecutive fall year-on-year in domestic deliveries in the EU in the third quarter of 2020 (i.e. -8%, much lower than -28.1% recorded in the second quarter). Data for the third quarter also showed the continued downturn in imports from third countries. After the severe drop (-16.8%) in the second quarter of 2020, imports from third countries dropped even more severely in the third quarter of 2020, with a year-on-year fall (-25.4%), that is the fourth consecutive quarterly drop of more than 10%. EU steel-using sectors the COVID-19 outbreak has further hit EU industrial sectors at a time when these had already been experiencing a severe downturn and were coping with serious challenges. Over the course of 2019, business conditions in the manufacturing industry had continued to deteriorate. This downward trend has gained speed in the second half of 2019, particularly in the automotive industry, while the construction sector has continued to outperform other major steel-using sectors. This has resulted in a pronounced slowdown in output growth in steel-using sectors. This has culminated in unprecedented drops over the second quarter 2020, mainly as a result of the severe lockdown measures imposed by governments in March and April 2020. Total output in steel-using sectors fell (-24.4%) in the second quarter of 2020. In the third quarter of 2020, output in steel-using sectors has rebounded compared to the previous quarter – thanks to restarted industrial activity across the EU – but has nevertheless fallen year-on-year (-6.4%).

The EU steel market: supply

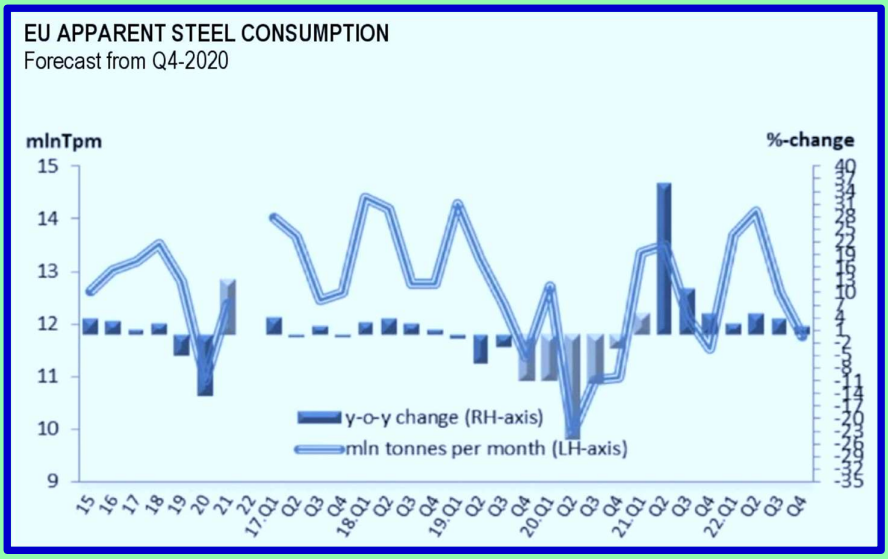
The supply-side of the EU steel market analyses factors affecting domestic and foreign

supply, as well as stock effects in the distribution chain and at the end-user level.

Apparent steel consumption

Definition

Apparent consumption is also referred to as 'steel demand'. It is total deliveries of all steel products and qualities by EU producers plus imports less 'receipts' into the EU, minus exports to third countries.



In other words, apparent consumption is deliveries by EU producers plus imports minus receipts (that is, imports by EU producers themselves of material that is further processed), minus exports to third countries. EUROFER's definition of apparent consumption includes all qualities, including stainless, and all finished products and semi-finished products. If apparent consumption exceeds real steel consumption, the surplus is stocked in the distribution chain. If apparent consumption is less than real steel consumption, inventories are being withdrawn.

Apparent steel consumption in the third quarter of 2020

Further to the exceptional drop in the second quarter (i.e. -25%) due to harsh lockdown measures all over the EU leading to a stop in most industrial activities, EU apparent steel consumption fell (-11.6%) year-onyear in the third quarter of 2020, reaching 32.8 million tonnes. This marked the seventh consecutive fall. The outbreak of the Covid-19 pandemic led to an almost complete stop in industrial activity from mid-March 2020 took its heaviest toll at that point, but steel demand had already been impacted in the previous quarters. EU domestic and foreign supply A substantial deterioration in business conditions due to the onset of the pandemic was added to existing downside factors that had already seriously depressed steel demand over the preceding quarters: uncertainty about near-term business conditions, weak demand from the manufacturing sector and continued stock reduction to

record lows have resulted in exceptional quarterly falls in the second quarter. As a result of these downside factors prior to the pandemic, apparent consumption in the EU fell (-5.3%) over the entire year 2019, compared to 2018, when apparent consumption increased year-on-year (+2.6%).

EU domestic and foreign supply

In line with what had been seen in preceding quarters, imports of steel products from third countries into the EU market – including semi-finished products – decreased markedly over the third quarter of 2020 as a result of extremely weak steel demand in the EU, coupled with current safeguard measures, resulting in a year-on-year drop (-25.4%), even steeper than that recorded in the second quarter (-16.6%).

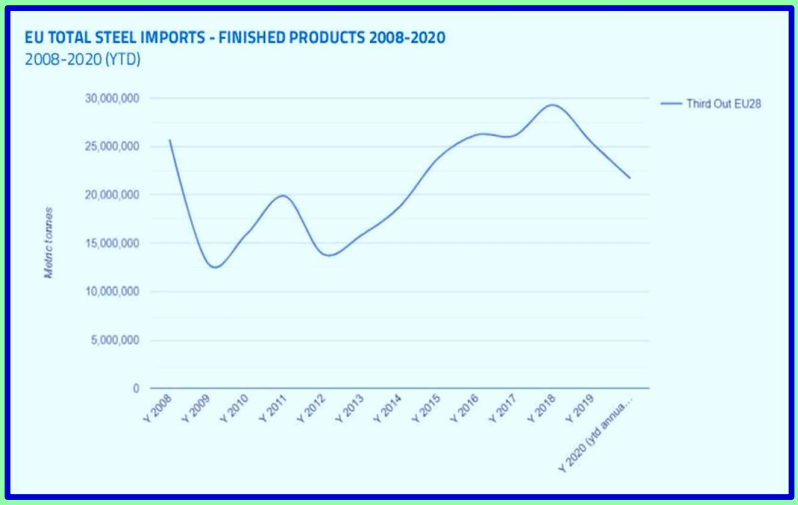
EU APPARENT STEEL CONSUMPTION - IN MILLION TONNES PER YEAR

Year	2013	2014	2015	2016	2017	2018	2019	2020(f)	2021 (f)	2022 (f)
Million tonnes	141	146	152	156	158	162	154	134	152	157

FORECAST FOR EU APPARENT STEEL CONSUMPTION - % CHANGE YEAR-ON-YEAR

Period	Year 2020	Q1'21	Q2'21	Q3'21	Q4'21	Year 2021	Q1'22	Q2'22	Q3'22	Q4'22	Year 2022
% change	-13	5.0	35.8	11.0	4.9	13.3	2.6	4.9	3.8	2.1	3.4

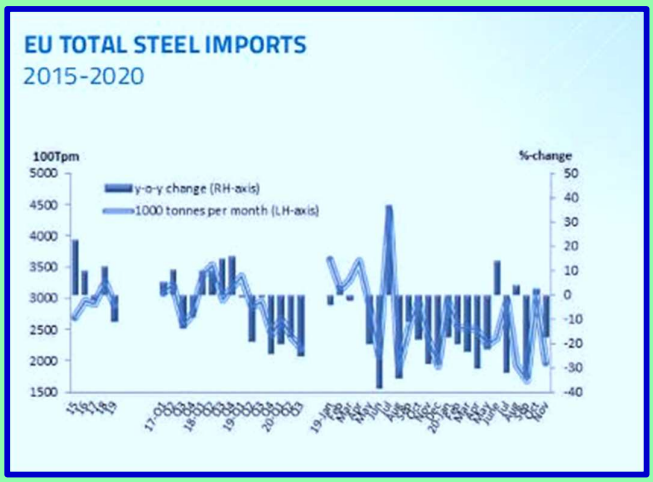
Imports showed considerable volatility throughout 2019, with unusual monthly peaks, and this trend continued in the first eight months of 2020. Imports jumped to all-time record level of 4.4 million tonnes in August 2019. This was followed by much lower tonnages in the subsequent months down to low levels in historical terms, with more stable figures and lower volatility up to April 2020 (as a reflection of exceptionally weak demand). before surging again for some products in July 2020 and show some volatility again from September to November. Meanwhile, domestic deliveries by EU steel suppliers fell (-8%) year-on-year in the third quarter of 2020, less than recorded in the



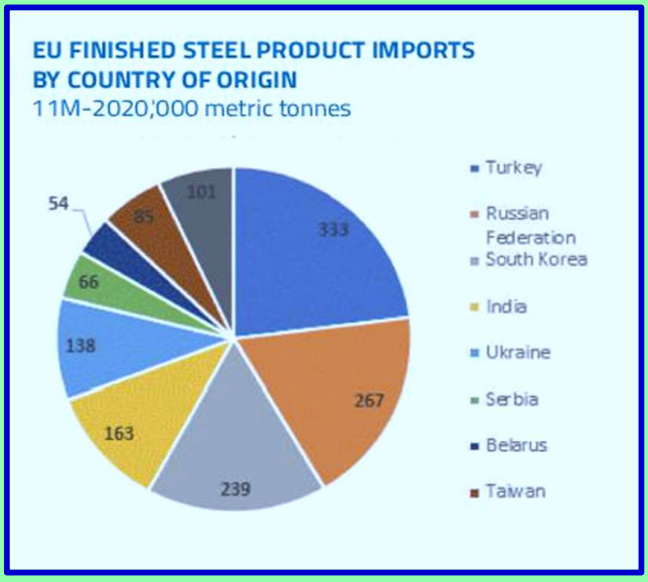
second quarter of the year (-28.1%). Over 2019, deliveries fell (-4.2%) compared to 2018, when they had increased in yearly terms (+1.2%). Apparent consumption is expected to fall (-13%, previously forecast at -14.6%) in 2020, and then to rebound (+13.3%) in 2021, and to grow more moderately (+3.4%) in 2022.

Imports

Total imports of steel products into the EU28 – including semi-finished products – fell pronouncedly (-25.4%) in the third quarter of 2020 (vs -16.8% in the second quarter). In the whole year 2019, imports from third countries had decreased (-11.5%), against an increase (+12.5%) in 2018.



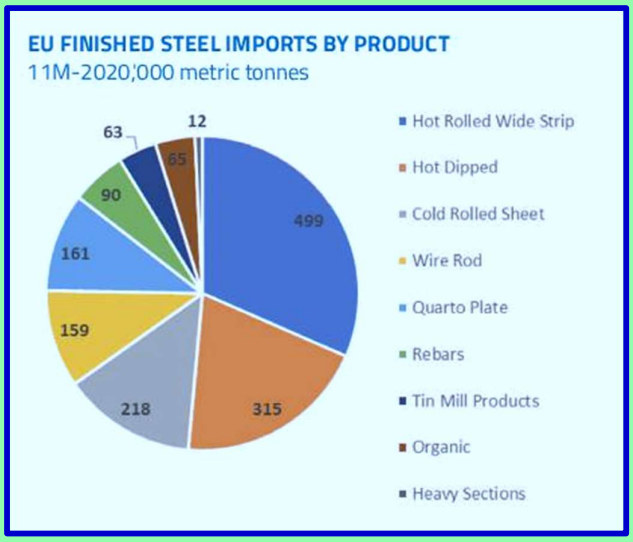
In 2019 monthly data showed increasing volatility, which eased considerably after an exceptional peak in August of that year. This relatively stable trend continued up to April 2020, but then a short-term increase (particularly for some specific products) was reported in July 2020, with signs of volatility from September to November 2020. In the first eleven months of 2020 – as November is the most recent monthly data available at the time of publication - finished product imports fell (-17%) year-on-year due a year-on-year drop in flat product (-16%) and long product (-20%) imports.



Imports by country of origin

According to November 2020 data, the main countries of origin for finished steel imports into the EU market were Turkey, the Russian Federation, South Korea, India and Ukraine. These five countries represented 65% of total finished steel imports into the EU. Eleven months into 2020, despite consistently declining import volumes across 2020, Turkey was still the largest exporter of finished steel products to the EU with 19% of total EU finished

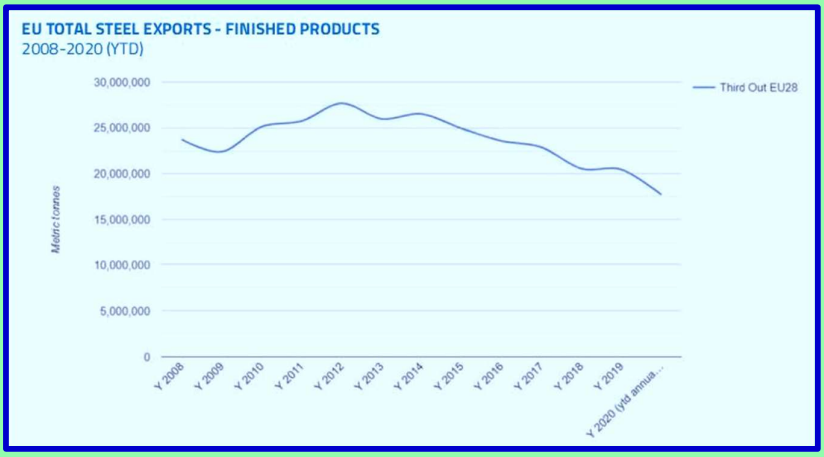
steel imports. This was followed by the Russian Federation with 15% and South Korea with 14%. In the first eleven months of 2020, imports of finished products from Turkey decreased (-31%) because of a fall in both flat (-24%) and long (-51%) product imports. Over the same period, imports from China fell (-29%). By contrast, imports from the Russian Federation have increased (+5%); From Russa, flat products increased (+9%) and long product imports decreased (-3%).



Imports by product category

Customs data show that flat product imports dropped (-21%) year-on-year over the third quarter of 2020 (vs. -10% in the second quarter). Over the first eleven months of 2020 imports of flat products decreased (-16%). Meanwhile, long product imports fell (-42%) on a yearly basis in the third quarter of 2020 (vs. -3% in the second quarter), and (-20%) in the first eleven months of 2020. The share of long products out of total finished steel product imports was 22%. Within the flat product market segment, in the first eleven months of 2020 imports of cold rolled sheet decreased (-18%), imports of strip mill products (-19%) and hot-rolled wide by (-21%). Imports of coated sheets and hot-dipped galvanised sheets fell (-14% and -13% respectively). Imports of quarto plate fell more moderately (-5%).

All long product imports were significantly lower in the first eleven months of 2020 compared to the same period of 2019. The sharpest falls were recorded for heavy sections (-53%) and rebars (-38%), while merchant bars and wire rod recorded decreases (-9% and -7% respectively).

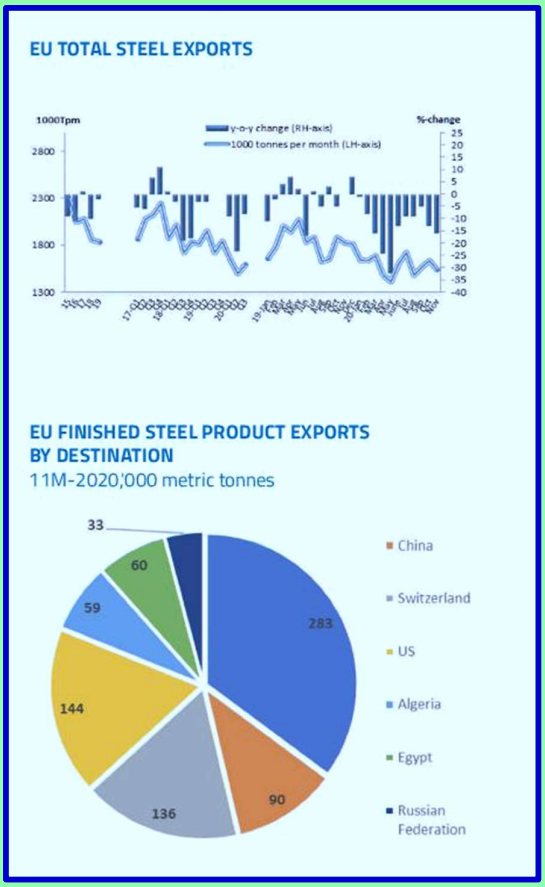


Exports

Total EU exports of steel products to third countries decreased (-8%) year-on-year in the

third quarter of 2020, further to a decline (-23%) in the second quarter.

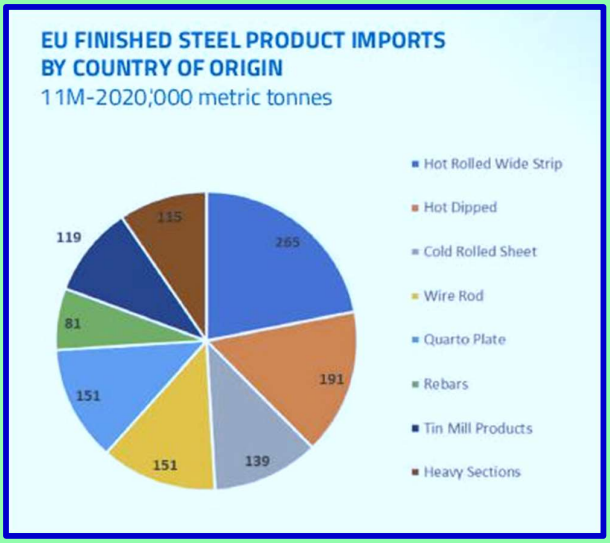
In the first eleven months of 2020, total steel exports fell (-14%) compared to the same period of the previous year, as a result of a decrease of a drop (-13%) in exports of flat products and a drop (-14%) in the exports of long products. Over the same period, exports of finished steel products dropped (-13%).



Exports by country

The main export destinations for EU steel exports over the third quarter of 2020 were Turkey, China, Switzerland and the United States, followed by Algeria and Egypt, with some changes compared to the pattern in key export destinations seen in 2019. This trend has continued up to the latest monthly data available (November 2020), when the main four exporting countries together accounted for 44% of total EU finished product exports over this period. In the first 11 months of 2020, exports of finished products to China rose (+19%) and export to Egypt rose (+21%). By contrast, exports to the Russian Federation and Algeria dropped significantly (-40% and 42% respectively), and also exports to the US (-34%), whereas exports to Switzerland decreased much less significantly (-9%).

Exports by product category



In the third quarter of 2020, flat product exports accounted for 68% of finished product exports and long product exports accounted for the remaining 32%. Exports of flat products recorded a decrease (-6% following a drop (-24%) in the second quarter), and exports of long products decreased (-9%, further to a decline (-17%) in the second quarter). Exports of finished products decreased (-7%). In the first eleven months of 2020, exports of all individual flat products decreased compared to the

previous year. Exports of quarto plate recorded the least pronounced drop (-7%), while, while all other flat products recorded decreases (between -12% and -18%). Among long products, exports of rebar recorded the most significant drops (-27%), while exports of wire rod, merchant bars and heavy sections fell (-15%, 10% and 8% respectively).

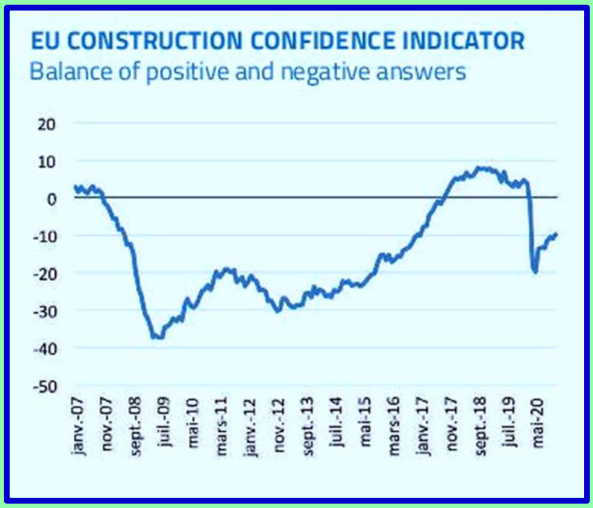
Trade balance

The EU's total steel product trade deficit amounted to 854 kilotonnes per month over the first eleven months of 2020. In November 2020, to which the latest report referred, there was a trade surplus in long products thanks to a considerable surplus in heavy sections, as observed over the preceding months. In the third quarter of 2020, the trade deficit of total steel products amounted to 609 kilotonnes, lower than 881 kilotonnes reported in the second quarter. In detail, there was a deficit of 275 kilotonnes in flat products and a surplus of 65 kilotonnes in long products. As far as the trade deficit with individual trade partners is concerned, the largest trade deficit in finished products was with Russia with 432 kilotonnes, followed by South Korea with a deficit of 212 kilotonnes. The trade position with Turkey has relatively improved in recent quarters as the trade deficit decreased from 428 kilotonnes in the fourth quarter of 2018 to 11 kilotonnes in the third quarter of 2020. The major destination countries for EU finished steel exports with a trade surplus over the first eleven months of 2020 remained the US, Switzerland and Algeria. It is worth noting that once normal business conditions are restored after the end of the COVID-19 pandemic and steel demand picks up again, the combination of still-volatile monthly steel imports and the increased capacity of major exporting third countries will continue to pose a serious risk for EU steel producers. The final safeguards may have undergone some improvements in their design, but the safeguard itself keeps the door open for historically high import volumes. These are imports which under the safeguard are allowed to increase further, even as market conditions deteriorated. The risk is that any growth of EU steel demand in the course of 2021 would mostly benefit imports due to the unused quota transfer mechanism. This is already partly reflected in imports' market shares of EU steel consumption that have remained unchanged even in times of plummeting steel demand. The EU market therefore remains at risk of being destabilised by third country imports to the detriment of EU domestic producers. The root cause of the challenges faced by the EU sector today is, still, global overcapacity. Global overcapacity is still running far ahead of growth in worldwide production. Moreover, excess capacity is still being built up without solid economic justification in countries such as China (that was able to relaunch again its economy and its industrial growth at speed since the third quarter of 2020), Indonesia, Iran, Russia, or Turkey.

The EU steel market: final use

Outlook for steel-using sectors

Prior to the onset of the Covid-19 pandemic, the manufacturing slump in the EU had deepened in the second half of 2019, with the automotive sector registering quarterly falls in production activity since the third quarter of 2018. In most other sectors, output fell considerably as well. The main exception was the construction industry whose growth, nevertheless, lost ground considerably. Persistent headwinds were already blowing before the outbreak of COVID-19, and are likely to continue weighing on the steel-using sectors once normal business conditions are fully restored. The outlook for output growth was slashed dramatically for 2020 due to the almost complete shutdown in industrial activity from the second half of March 2020. This resulted in unprecedented falls in output over the second quarter and is set to lead to very severe output drops by the European steel-using sectors, despite a short-term rebound over the third quarter due to restart of industrial activity and removal of lockdown measures (albeit still at historically low levels).

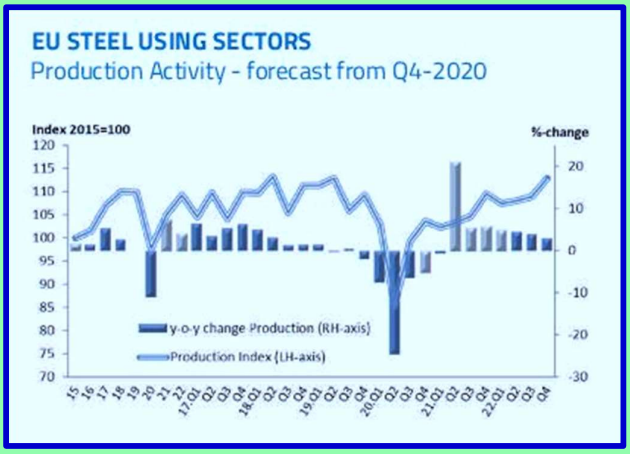


Total EU steel-using sector output

Total production activity in EU steel-using sectors experienced flat growth in 2019 (which is a revision from the former 0.1% in our previous outlook) - further to an increase (+2.7%) in 2018 - which was the first annual drop in output since 2013. The negative growth in 2019 was the result of an increase in construction output and a drop in all other steel-using sectors (the most pronounced being recorded by the automotive sector). This negative trend continued at a faster pace in the first quarter of 2020. This quarter was only impacted to a limited extent – i.e. from mid-March – by the lockdown measures. The most severe consequences of the stop to industrial activity were thus recorded over the second quarter. The removal of lockdown measures over the third quarter allowed industrial activity to restart, with a considerable rebound in output compared to the record lows seen in the preceding quarter, but industrial activity has remained slow, and is exposed to fragility and risks.

Total steel-using sector activity in the third quarter of 2020

Further to the downturn already observed in the preceding quarters due to worsening conditions for the whole manufacturing sector, production activity in steel-using sectors of the EU experienced a pronounced fall in the first two quarters of 2020. Output fell year-on-year (- 7.5%) in the first quarter and in the second quarter -24.4%). In the third quarter, despite a quarter-on-quarter rebound, steel-using sectors' output continued to fall on a year-on-year basis (-6.4%). In fact, since the second quarter of 2019, manufacturing output slowed considerably compared to the bullish cycle of 2017 and the first half of 2018, due to international trade tensions and lower exports to third countries, decreasing industrial confidence and growing business uncertainty. In particular, since mid-2018, automotive production activity was under severe pressure. Meanwhile, total production activity in the steel-using sectors has held up somewhat better thanks to the resilience of the construction sector. This is because it is largely protected from the ongoing weakening dynamics in foreign trade, though it was disrupted by COVID-19 in the first quarter, and to an even greater extent in the second. There was a rebound in the third quarter, however. Overall output in the steel-using sectors in the third quarter of 2020 registered negative growth in all EU economies (at different rates across countries) with the only exceptions being the Czech Republic and Hungary.



Total steel-using sectors forecast 2021-2022

The Coronavirus pandemic and lockdown has a massive impact on steel-using sectors' output, with plant closures, capacity reduction (permanent and/or temporary) and huge supply chain

YEAR-ON-YEAR % CHANGE - EU STEEL WEIGHTED INDUSTRIAL PRODUCTION (SWIP) INDEX

	% Share in total Consumption	Year 2020	Q1'21	Q2'21	Q3'21	Q4'21	Year 2021	Q1'22	Q2'22	Q3'22	Q4'22	Year 2022
Construction	35	-5.7	-1.3	9.5	4.5	4.8	4.3	6.7	5.7	2.6	1.3	4.0
Mechanical engineering	14	-11.5	-1.2	18.9	5.8	5.8	7.0	6.4	4.9	4.0	2.8	4.5
Automotive	18	-19.5	2.7	62.3	9.1	7.4	15.9	6.7	5.5	4.1	3.1	4.8
Domestic appliances	3	-3.6	1.0	16.9	-0.3	4.5	4.8	3.0	6.0	4.5	1.0	3.5
Other Transport	2	-9.9	-6.1	19.1	6.8	7.3	5.9	4.2	4.7	4.4	3.7	4.3
Tubes	13	-15.2	-2.3	20.9	9.0	7.8	8.4	6.8	5.5	4.9	3.2	5.1
Metal goods	14	-9.6	-0.5	21.0	3.3	4.2	6.4	5.6	5.4	4.7	4.0	4.9
Miscellaneous	2	-9.4	-4.9	13.8	3.0	3.8	3.5	5.2	4.5	3.9	2.8	4.1
TOTAL	100	-11.0	-0.7	21.1	5.5	5.8	7.4	5.0	4.5	4.0	3.0	4.1

disruption. Despite the removal of lockdown measures and restarted industrial activity, uncertainty remains quite high as the pandemic is not yet over and continues to weigh down confidence and growth prospects. This was particularly visible during the new wave of the pandemic that hit Europe since the start of the fourth quarter 2020, with new lockdowns put in place (albeit without affecting industrial activity). Thus, economic growth and global trade are set to remain subdued and exposed to fragility until the second quarter 2021, with repercussions for export-oriented sectors (automotive in particular). This will also affect EU investment via severely weakened business confidence levels. Likely less negative output growth in construction, rather than other sectors, may cushion negative trends in other steel-using sectors. Total steel-using sectors output is set to fall (-11%, almost unchanged from EUROFER's previous forecast of -10.4%) in 2020, to recover (+7.4%) in 2021 and to grow more moderately in 2022 (+4.1%).

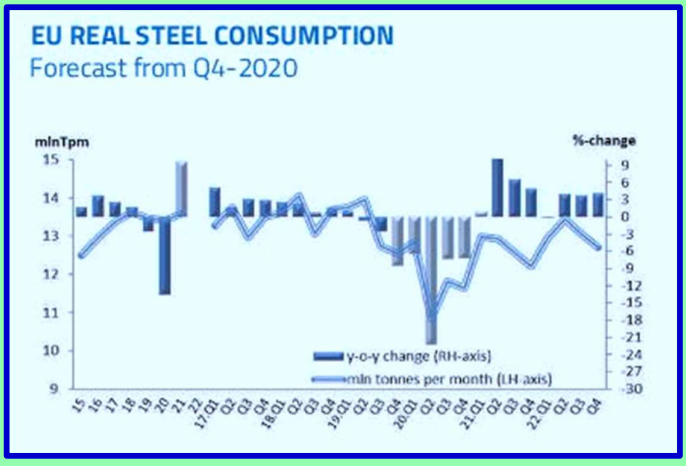
Real steel consumption

Definition

Real consumption is the use of all steel products used by steel-using sectors in their production processes, also referred to as the 'final use' of steel products, adjusted for the stock cycle. Overview Real steel consumption fell (-7.3%, after -22.3% in the second quarter) year-on-year in the third quarter of 2020 and stood at 35.4 million tonnes. Over the entire year 2020, real consumption is set to fall (-11%), the second consecutive annual drop after 2019 (-2.7%).

Real steel consumption in the third quarter of 2020

The continued, pronounced slowdown in production activity of steel-using sectors, coupled with reduced steel intensity and the rapid, dramatic deterioration in market conditions due to the onset of the Covid-19 pandemic led to a fall (-7.3%, further to -22.3% in the second quarter) year-on-year in real steel consumption in the third quarter of 2020. This was the sixth consecutive year-on-year drop. The third quarter's real consumption figure resulted from unprecedentedly poor market conditions that had materialised due to the Covid-19 pandemic. This



compounded deterioration from the preceding quarters, albeit with some significant rebound in the third quarter from the record lows seen in the preceding quarter. The economic slowdown over the second half of 2019 and widespread business uncertainty, plus decreasing steel intensity – the ratio of steel consumption to steel-weighted production in steel-using industries – reflecting the fact that during economic downturns steel using industries tend to reduce the steel content in their final output unit – were key drivers behind this negative performance. The de-stocking process, which had already taken place substantially during 2019, reflecting poor expectations, has continued also in the first three quarters of 2020, contrary to the seasonal pattern (i.e. under normal business cycles, stocks increase over the first two quarters of the year), albeit slowing down.

FORECAST FOR REAL CONSUMPTION - % CHANGE YEAR-ON-YEAR

Period	Year 2020	Q1'21	Q2'21	Q3'21	Q4'21	Year 2021	Q1'21	Q2'21	Q3'21	Q4'21	Year 2022
% change	-11.0	0.9	19.2	6.6	4.9	7.5	-0.1	4.0	3.8	4.1	2.9

Real consumption was severely impacted by the Covid-19 pandemic and the shutdown in economic activity, particularly steel-using industries. Real consumption will fall (-11%, previously set at --11.5%) in 2020, and will recover in 2021, together with the improvement in steel demand, (+7.5%, previously +9.3%), and in 2022 (+2.9%).

Construction industry

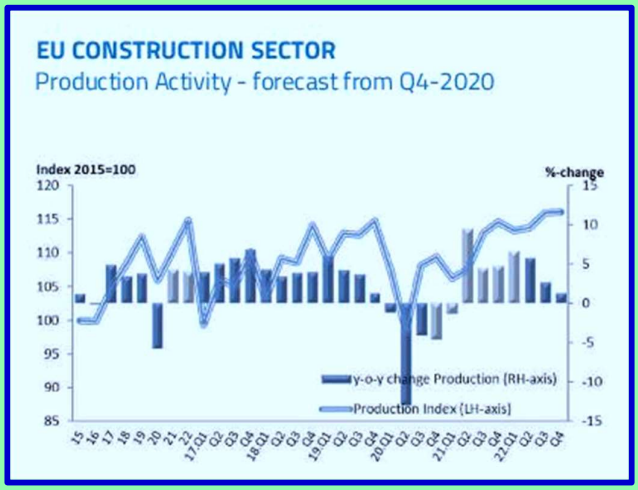
The momentum of the EU construction sector had lost speed considerably over the last three quarters of 2019, culminating in a growth year-on-year of just 1.2% in the fourth quarter of 2020. In the second quarter, construction output in the EU plummeted (-12.9%) as a result of fractured confidence and the stop in construction sites and housing starts due to the outbreak of the Covid-19 pandemic (which would to some extent be in line with the seasonal pattern). In the third quarter of 2020, the worst effects of the pandemic were over, with a quarter-on-quarter rebound which however translated in another year-on-year drop (-4.1%).

Real steel consumption in the third quarter of 2020

In the third quarter of 2020, construction output benefited, to a limited extent, from the restart in economic activity all across the EU. Although the construction sector cycle usually reacts more slowly to economic shocks, construction output in EU fell year-on-year (-4.1%) (compared to the exceptional -12.9% in the second quarter). Construction output grew in Italy, the Netherlands and Sweden at moderate rates, while it fell in all other European countries. In line with actual construction production volumes, gross fixed investment in construction in the third quarter of 2020 rebounded in the third quarter (+ 11%, after a fall of

-11.3% in the second quarter). This, however, equated with equating with a fall (-3.8%) year-on-year, due to a sharp year-on-year fall both in residential investment (-3.7%) and in other construction investment (i.e. private non-residential plus civil engineering, -3.9%). Looking at the performance of individual countries, construction investment dropped year-on-year almost across all countries, albeit at different speed, with the exception of Italy, Greece and Hungary.

Construction industry forecast 2021-22



Despite the rebound over the third quarter, prospects for the EU construction sector during 2020 were hugely impacted by the economic lockdown. This resulted in closures of construction sites, particularly in civil engineering, despite a slow restart in construction works (particularly in public construction) from June/July onwards. However, some EU countries have explicitly planned to restart public construction activity as quickly as possible, so as to use it as a countercyclical tool during the downturn. The EU construction confidence indicator had remained well above its long-term average over the first half of 2019 but has continued to decline since then. This trend continued in early 2020 according to available figures, before plummeting to dramatic record lows in April, followed by a short-term rebound in June and July. This continued, albeit at moderate pace, until December 2020. However, confidence remains rather low in historical terms. Construction activity at the end of 2019 was already experiencing a slowdown. This was not just because of demand-related factors, such as the weakening economic fundamentals and a general cooling of market dynamics after several years of strong growth, so the experience of 2020 merely extends this decline. Although it has been affected by the huge disruption caused by the COVID-19 lockdown, the construction industry is expected to experience a lower recession than other steel-using sectors with regards to the expected trend in production activity. The residential construction market and, particularly, private non-residential subsectors were most impacted by the halt in construction production in the course of 2020.

Despite mortgage and business loans set to remain at record lows, the fall in incomes due to the increase in unemployment as a result of the economic lockdown will continue to be

strongly unsupportive of housing demand. Until a substantial improvement in the labour market occurs – and growth in wages is seen – the residential market will not provide positive contribution to new output in construction. Non-residential construction (offices, commercial and industrial buildings), which was already the weakest subsector in 2019 due to subdued investment climate and economic uncertainty, is expected to pay the highest toll to the pandemic-related lockdown. Even after the removal of lockdown measures the increasing vacancy rates in offices due to widespread remote working across Member States and the uncertain and fragile recovery in the manufacturing industry in the EU will most likely result in delayed investment decisions, with very little benefit for new non-residential investment. In contrast, the role of civil engineering as a growth engine for the construction sector is expected to strengthen at least from the first half of 2021, and to avoid a deeper collapse of the sector as a result of the COVID-19 outbreak. During the economic slowdown in 2019, civil engineering consistently recorded higher growth rates than both residential and non-residential construction. Under the current, dire economic circumstances, many EU governments have announced that they will provide impetus to the completion of public construction and infrastructure projects, facilitated by to the suspension of the Stability and Growth Pact and the Fiscal Compact. Lower government debt service costs, given the continuity of the ECB action, should provide a very supportive role. Construction output will drop (-5.7%) in 2020 (a more pessimistic outlook than our previous forecast of -3.6%), and will rebound (+4.3%) in 2021 and (+4%) in 2022.

Automotive industry

The EU automotive sector was already suffering its worst slump since the eurozone crisis of 2009-2012, before the onset of the COVID-19 outbreak that led, in March and April 2020, to an almost complete stop in production across EU car plants. Activity restarted after the removal of economic lockdown measures between May and early June in almost all EU countries, leading to a considerable rebound in output albeit far below the activity levels observed before the pandemic. Sluggish domestic and export demand, trade-related uncertainties, emissions woes, shifting patterns in ownership and model ranges (namely uncertainty about regulation and facilities for Electric Vehicles) already took their heavy toll on production activity during 2019. Output in the automotive sector has fallen since the third quarter of 2018, resulting in annual drop (-5%) over the entire year 2019 (the first since 2013), and – due to the huge impact of the pandemic-related lockdown - to an unprecedented year-on-year fall (-47.1% revised, formerly -44%) in the second quarter of 2020. Over the third quarter, the restart in industrial activity that was made possible by lockdown measures removal in the EU resulted in a strong quarter-on-quarter rebound, which however still translated into a year-on-year drop (-10.7%).

EU passenger car and commercial vehicle demand

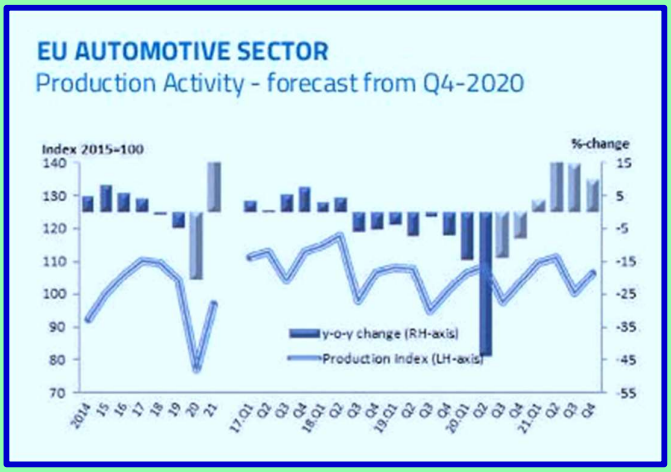
Despite restored production activity, according to most recent data market conditions and car demand in the EU continue to experience unprecedented weakness, despite the strong rebound in production seen from the third quarter of 2020, due to persistently weak demand from consumers due to the economic uncertainty. Passenger car registrations fell (-23.7%) over the entire year 2020 (-3.3% in December 2020). Commercial vehicle registrations followed the same pattern, with a drop (-18.9%) in 2020 and (-4.2%) in December 2020.

Automotive sector activity in the third quarter of 2020

Production activity in the EU automotive industry fell year-on-year for the eighth consecutive quarter (-10.7%, albeit lower than the dramatic -47.1% experienced over the second quarter). The combination of already weakening demand for new passenger cars in Europe and in key export markets such as the US, China and Turkey, uncertainty around WLTP and model changes plus – from mid-March 2020 – the outbreak of the Covid-19 pandemic, took an unprecedented toll on production activity in all EU countries, despite rebound in activity further to the removal of lockdown measures in the third quarter of 2020.

Automotive industry forecast 2021-2022

Due to the onset of the pandemic, the automotive industry almost completely shut down in the second quarter of 2020 and production was suspended all over Europe, with very few exceptions. Some production sites reopened already in late April, and gradually the sector returned to almost normal activity around mid-June all over the EU. This led to new orders and restart in output, albeit around low levels. Huge disruption in the supply chain due to lockdowns and blockages in transport across EU countries made it very difficult to ensure the supply of materials and components to the industry. The rebound seen over the third quarter has led to sharp quarter-on-quarter rises in output, but still around historically low levels. Uncertainty has spread again since the beginning of the fourth quarter due to the new wave of the pandemic, as this has led to a new set of lockdown measures in most Member States (albeit much less severe than the measures put in place in March). Consumer confidence, due to poor



disposable income developments, has remained depressed. The manufacturing cycle has started to be on the upswing again over the fourth quarter – as plants were allowed to operate – but this recovery appears to be fragile and exposed to many uncertainty factors. However, assuming that from the second quarter 2021 onwards full confidence is restored and normal business conditions return it will take time before activity levels before the downturn seen in 2019 will resume. In addition, demand for new cars from consumers is expected to remain very weak at least until the macroeconomic picture and consumer disposable income improve. This is another source of uncertainty. In 2021, provided that the industry has been able to restore its production to normal levels, and with WLTP distortions having faded out by then, the launch of new models - many of them electric vehicles – could be a supportive factor, combined with some improvement in real wages and labour market dynamics on the demand side. However, subdued car demand from major markets such as the US, China and Turkey will remain a challenge for EU car exporters.

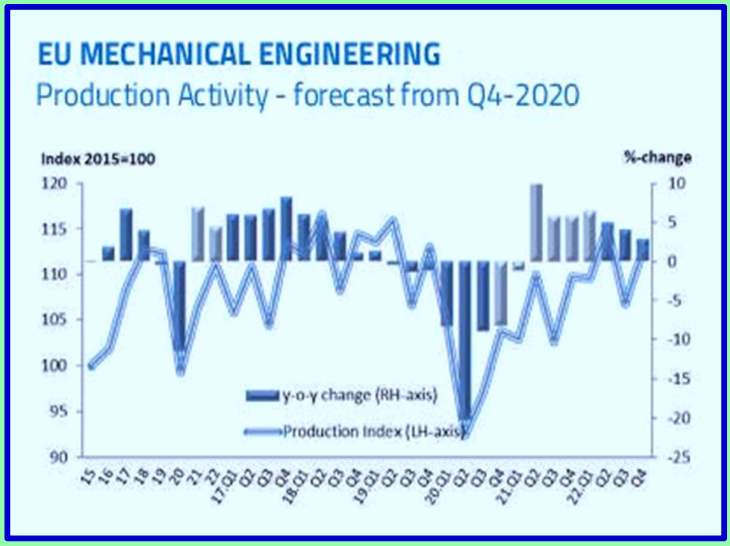
In addition, trade-related risks, potential disputes with the US on tariffs on EU automobiles and automotive parts and components, cannot be completely ruled out, possibly also under the new US Administration, that will still hamper the recovery of the industry. This would continue to impact Germany and Central European industry, which have extensive trade linkages with the US market and are closely integrated into European auto supply chains. Output in the automotive sector is expected to be hit the most compared to all other steel-using sectors in the course of 2020, with an annual slump (-19.5%, slightly less severe than -20.6% in our previous outlook), followed by a rebound (+15.9%) in 2021 and a more moderate growth (+4.8%) in 2022.

Mechanical engineering

Output in mechanical engineering had been falling since the second quarter of 2019, in connection with the continued downturn in manufacturing. In line with expectations, production activity in the EU mechanical engineering sector registered record recession in the second quarter of 2020, which was equally affected by the industrial lockdown in response to the Covid-19 outbreak as the lack of new orders took its toll on production activity. As a result, the downward trend in output observed in previous quarters was considerably exacerbated, with a fall of –20.3% year-on-year in the second quarter, during the most severe Covid19-related lockdowns (against -8.3% in the first quarter).

Mechanical engineering activity in the third quarter of 2020

Further to the removal of lockdown measures and the restart in industrial production, output in the EU mechanical engineering industry in the third quarter of 2020 rebounded significantly quarter-on-quarter but still fell year-on-year (albeit much less than in the second quarter, -9%), as a continuation of the existing negative trend and reflecting low activity levels. The negative impact of slowing capital investment growth in the EU, weaker international trade, slowing global economic growth, protectionist policies and continuing Brexit uncertainty had continued to outweigh positive support for output growth from orders that were still in the production pipe line throughout 2019. As a consequence, growth in production activity continued to lose speed. The business climate in the mechanical engineering sector had continued to deteriorate in general due to trade-related issues as well as on incoming orders and near-term production activity, which led to investment decisions being postponed. This trend was further worsened by the onset of the Covid-19 pandemic and its unprecedented consequences on the industry. Activity came to almost complete shutdown from mid-March, which has hugely impacted figures for the second quarter of 2020. The rebound seen over the third quarter has led to sharp quarter-on-quarter improvement, but activity remains well below output levels seen before the downturn that started in the second quarter of 2019. In addition, the second wave of the pandemic has resulted in continued uncertainty and hampered the industrial recovery as well as the global manufacturing cycle. This is not set to gain speed and remain stable until the second half of 2021, provided that the negative effects of the pandemic are diminished and no other external shock will materialise.



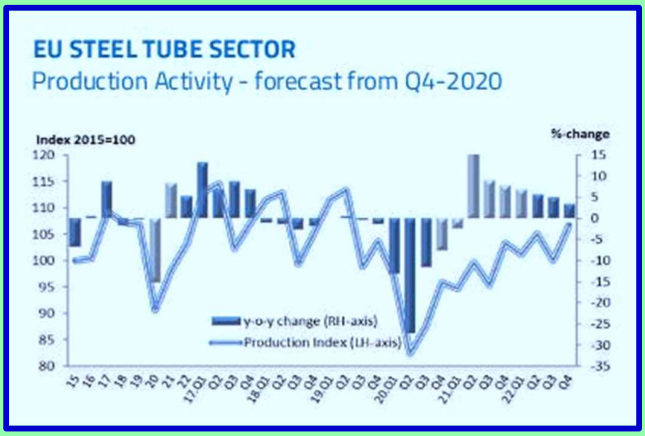
Mechanical engineering forecast 2021-2022

The pandemic has taken a heavy toll on the sector, with an unprecedented output loss at least until the end of the second quarter2021. Due to the relatively strong reliance of the mechanical engineering sector in the EU on export markets and the investment climate, prospects for the post-pandemic scenario are far from bright, at least as long as the international economic recovery will remain fragile and exposed to risks. The combined effect of persistently low business confidence, trade friction, weakened demand in key

domestic markets in the EU, policy uncertainty and the likely weakness of the manufacturing sector in general may continue to put the brake on investment decisions even after the end of the pandemic. Amid such levels of uncertainty, companies in most downstream sectors will likely refrain from investment in new machinery and equipment and will instead favour maintenance, debottlenecking and the upgrading of existing machinery. Business conditions are expected to improve only from the second quarter of 2021 as the manufacturing sector in the EU begins to recover from the huge disruptions linked to the COVID-19 pandemic with the global supply chain functioning normally. On the other hand, in the post-pandemic scenario, easy credit conditions and financial support from policymakers should remain supportive. Mechanical engineering output is expected to fall (-11.5%, in line with our previous forecast (-11%) in 2020, that is for the second consecutive year – further to -0.5% in 2019, and to rebound later on (+7%) in 2021 and (+4.5%) in 2022.

Steel tube industry

Production activity in the EU steel tube industry has become more closely aligned with downstream sectors such as construction, automotive, the metal goods and mechanical engineering sectors. It thus moderately declined over the second half of 2019, further to modest growth rates or even negative growth rates recorded between the second half of 2018 and the first half of 2019. This trend was exacerbated dramatically by the outbreak of the Covid-19 pandemic in March 2020, resulted in an even steeper fall in steel tube output in the first and second quarter of 2020. Over the whole year 2019, the sector had experienced a moderate drop (-0.3%), which was however the second in a row (-1.8% in 2018) signalling already challenging situation and deteriorating perspectives for the sector.



Steel tube industry activity in the third quarter of 2020 In the third quarter of 2020, as a result of the removal of lockdown measures linked to the Covid-19 pandemic in April and May, output in the EU steel tube industry fell (-11.6%, much less than the -27.3% observed in the second quarter, despite a robust quarter-on-quarter rebound), with output remaining around historically low levels. This marked the fifth quarterly drop in a row. The tube industry had proven relatively resilient during 2019, showing more moderate decreases in output compared to other steel-using sectors, which can be partly explained by the links with the construction sector in the EU, which had a positive impact on demand for steel tubes in

construction applications up to the first quarter of 2020. This had somewhat mitigated the negative impact of deteriorating demand conditions in other sectors, such the automotive industry, mechanical engineering and the metal goods sector. However, this trend has ended over the second quarter of this year when the harshest consequences of the pandemic have materialised and have also seriously impacted the construction sector. This trend has continued over the third quarter, as the sector has experienced a year-on-year fall in output which is comparable with those experienced by other steel-using sectors in the EU.

Steel tube industry forecast 2021-2022

During 2020, output in the EU steel tube industry was heavily impacted by the industrial lockdown that had hit the EU further to the COVID-19 outbreak. EUROFER assumes that – provided that the pandemic fades around the third quarter 2021, the full year should see a moderate rebound. In fact, the outlook for demand for large welded tubes from the oil and gas sector is expected to remain very weak. Most important regional projects from which EU-based large welded tube producers could benefit have been put on hold and little progress was made over the past few months in solving the political and commercial issues hampering the completion of some specific pipeline projects. The recent collapse of global oil demand (and oil prices, which struggle to recover around profitable levels) reinforces this difficulty.

In fact, the demand outlook from the other downstream steel tube market segments is expected to remain fairly sluggish even after the return to normal business conditions. This will produce some positive effects on output from the second quarter of 2021, provided that the economic scenario will not deteriorate due to another external shock. Demand from the construction sector looks set to recover, whereas tube demand from the automotive and engineering sectors is forecast to remain rather weak, even if these sectors restore their production activity to high historical levels and supply chain disruptions are ultimately sorted out. Import pressure on steel tube markets in the EU will remain high, particularly for the commodity segment. Steel tube output is set to fall for the third consecutive year in 2020, at a much faster rate than in 2019 (-15.2% vs -0.3%). A rebound (+8.4%) is foreseen for 2021, followed by growth (+5.1%) in 2022.

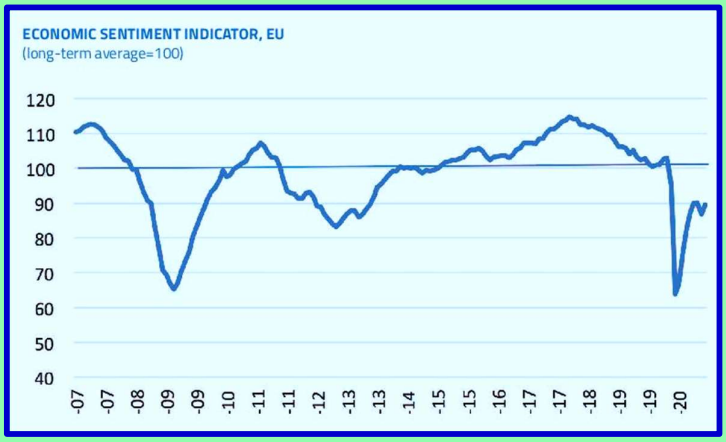
EU economic outlook 2020-2021

GDP Growth

The EU economy was already experiencing a significant slowdown over the second half of 2019, reflecting global trade tensions and the continued downturn in manufacturing – affecting Germany in particular – culminating in marginal GDP growth rates in the fourth

quarter of 2019. The onset of the Covid-19 pandemic with all its disruptions has obviously worsened this trend, resulting in substantial falls in real GDP across the EU in the first quarter of 2020. Even more severe quarterly GDP falls were reflected in the data of the second quarter of 2020 (which include April – the month most affected by the general economic lockdown), so that the entire EU technically entered economic recession (i.e. two consecutive quarterly GDP drops). As a result, in the second quarter of 2020 EU 's real GDP recorded a record slump (-11.4%, further to -3.3% in the first quarter), that marked the trough of the cycle, albeit exceptional due to the worst effects of lockdowns on the economy. In the third quarter, reflecting restarted economic activity, EU economies experienced strong quarter-on-quarter growth which were however widely expected and equally exceptional, being a mere technical rebound from the record lows of the preceding quarter. The EU recorded a rebound (+12%) in quarter-on-quarter terms, but real GDP dropped (-4%) year-on-year, after a record slump (-14%) in the second quarter. Individual EU economies recorded comparable GDP falls. Eastern European countries generally recorded relatively less pronounced year-on-year falls in real GDP (i.e. below -10%) over the third quarter. During the preceding quarters, GDP growth had been led mainly by domestic demand, that had to some extent proven resilient and had gradually been replacing exports as the main engine of growth during 2018 and 2019 (due to substantial slowdown in international trade), particularly in a largely export-driven economy such as Germany. Data for the first quarter had already reveal sharply negative contribution to GDP growth from private consumption (-3.2%), and gross fixed capital formation (-2.6% quarter-on-quarter), whose contribution had been positive in preceding quarters. Data for the second quarter had shown falls (-9.2%) quarter-on-quarter in consumption and from gross capital formation (-15.4%) respectively due to lockdown measures. These rebounded (+10.4% and +6.5%) respectively in the third quarter. Government consumption, that had proven relatively more resilient as governments used public spending as a macroeconomic tool to alleviate the slump in demand and support the economy, grew (+4.2%) over the third quarter. In the third quarter of 2020, investment in construction in the EU rebounded (+11.1%, after -11.3% in the second quarter) quarter-on-quarter, but this translated into a fall (-3.8%) year-on-year – the third consecutive drop. This resulted from the continued year-on-year fall both in residential investment (-3.7%, after -11.3% in the second quarter) and in other construction investment (i.e. private non-residential plus civil engineering, -3.9%, after 13.4% in second quarter). EUROFER's GDP growth forecast for 2020 in the EU is -7.9% (unchanged from our previous report), that is the first recession since 2013 and the harshest ever recorded. However, given the ongoing uncertainty EUROFER has lowered its prediction for 2021 compared to its previous Quarterly Outlook (5%, formerly 5.7%). It will be followed by GDP growth (+7.4%) in 2022.

Confidence Indicators



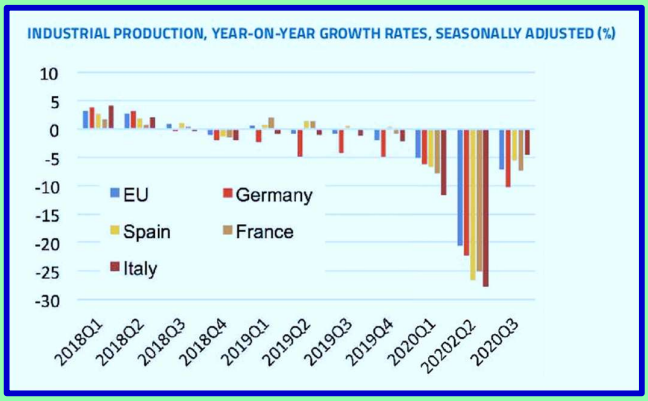
Decreasing economic confidence in the EU due to the sharp slowdown in the economic cycle was already clearly visible during the second half of 2019, as the Economic Sentiment Indicator (ESI) for the EU had been moving around the low levels last seen in 2014. Sentiment had improved among consumers and had remained stable in services, construction and in the retail sector during 2019, but confidence in these sectors has also shifted to deeply negative levels from March 2020, particularly in services that was hit the most by the economic lockdown in earlier months, and relatively less pronounced for construction. The Economic Sentiment Indicator for the EU plummeted to 94.5 in March 2020 after the onset of the pandemic, the lowest level since November 2013, and then reached the all-time low of 63.8 in April, i.e. the month of the toughest lockdown in economic activity everywhere in the EU. It then rebounded to 74.9 in June and has increased up to 90.2 in September, but then has eased and stabilised at 89.5 in December. This resulted from the removal of lockdown measures and improved economic confidence over the summer of 2020, along with better prospects for the economy for the rest of year thanks to expected substantial weakening of the Covid-19 pandemic and restored industrial activity, before the new wave of the pandemic over the fourth quarter.

Other leading indicators reflected the continued deterioration in the EU economic outlook over the first half of the year, followed by a sharp short-term rebound from September. However, the private sector economy in the euro area contracted for a second successive month in December, albeit at a much slower rate. The IHS Markit Eurozone PMI Composite Output Index rose from 45.3 in November to 49.1 in December. Services remained the principal drag on economic output, with activity here falling for a fourth successive survey period. In line with the recent trend, manufacturing remained the principal bright spot of the euro area economic performance, expanding for a sixth successive month and at a faster rate than in November. Sharply declining industrial confidence due to the COVID-19 outbreak in the first four months of 2020 followed the prolonged weakness in industrial activity in the EU throughout 2019. This is reflected in real industrial production data, being only partly affected by the industrial lockdown that started in mid-March in most Member

States.

The year-on-year decline in industrial production dramatically worsened in the first quarter of 2020 in the EU as well as in major euro area economies and even more in the second quarter, that was affected (in April and May) by lockdowns imposed by governments due to the pandemic, leading de facto to complete stop in industrial production over these two months.

In Germany, where industrial production had been dropping (by around -5%) year-on-year in each of the last three quarters of 2019, (-6.3% in the first quarter of 2020), the fall in industrial output in the second quarter was large (-22.8%). Spain – and France in in the second quarter – were the only large EU countries that registered a slight increase in manufacturing output over the last three quarters of 2019. These countries then recorded a first quarter slump (-6.4% and -8% respectively), which culminated in drops (-26.5% and 25.2% respectively) over the second quarter. As reported in the first quarter, the most severe impact was felt in Italy, where industrial production in the second quarter of 2020 plummeted by 28%. In the third quarter industrial production rebound considerably quarter-on-quarter over the third quarter of 2020. Growth was seen in the EU (+17.8%), Germany (+14.8%), France (+22.6%), Italy (+31.9%), and Spain (+28.3%). Most other economies experienced similar developments. However, on a monthly basis whereas in the EU in November 2020 year-on-year growth was still positive (+2.8), year-on-year growth in industrial production was flat in Spain, fell (-1.4%) in Italy and slowed down in most EU countries. These developments presaged disappointing economic developments over the whole fourth quarter 2020 as a result of the widespread resurgence of the pandemic. This is a 'double dip' scenario for industrial production, i.e. another quarter-on quarter drop in the fourth quarter after the temporary rebound in third quarter. The year-on-year comparison in the third quarter turned out to be negative, showing that industrial activity, in absolute terms, was around low historical levels despite the quarter-on-quarter rebound. In the EU, industrial production fell (-6%) compared to the third quarter of 2019, in Germany (-10.1%), in France (-7.3%), in Italy (-4.3%), in Spain (-5.3%). Any significant rebound around high levels in industrial output is not likely to materialise before the second quarter of 2021, provided that other adverse pandemic-related shocks do not negatively affect this outlook. Even once



normal business conditions are restored, lower production levels and rising stock levels in the manufacturing supply chain, are set to take their toll on industrial confidence, contributing to delayed business investment decisions. EUROFER foresees a fall in industrial production in the EU (-9.5%) in 2020, followed by a rebound (+6.5%) in 2021 and a more moderate growth (+4.2%) in 2022.

Economic fundamentals

Due to the global pandemic, the downward trend in world trade has dramatically worsened exacerbated, as reported by short-term (i.e. monthly) trade volumes according to WTO data. World merchandise export volumes decreased by 4.3% in the third quarter of 2020 compared to the second quarter, that had already seen a drop of 14.3%. Lockdown measures across the globe took a heavy toll on global demand, production and trade, which was only partly offset by the widespread economic rebound over the third quarter. All world regions recorded considerable declines in the third quarter. Exports from Europe contacted (-2%), from North America (-11%), while Asia (thanks to the considerable economic rebound in China, that was more robust than other world regions) saw a growth of exports (+2%). World imports contracted (-6%, after -21% in the second quarter). Still in the first quarter of 2020, as in the previous three quarters – and prior to any possible impact on actual data by the current COVID-19 outbreak – private consumption had remained relatively resilient and continued to provide positive contribution to GDP growth. Labour market fundamentals had continued to improve, albeit at a slower pace than before in most EU countries. However, job creation continued to be affected by lower levels of production activity in industry and by persistent uncertainty on short-term business conditions. The dramatic deterioration of the economic situation due to the pandemic, the ongoing rise in unemployment have – as expected – completely reversed the picture. The EU28 unemployment rate – which had remained around the levels observed around late 2019, started to rise, i.e. from 6.6% in March to 7.5% in November, with considerable variations across Member States and across

EUROFER MACROECONOMIC DATA
ANNUAL % CHANGE, UNLESS OTHERWISE INDICATED

	2019	2020	2021	2022
GDP	1.4	-7.9	5.0	7.4
Private consumption	1.4	-7.4	4.8	4.4
Government consumption	2.1	-0.6	5.0	1.4
Investment	2.5	-9.0	4.9	4.2
Investment in mach. equip.	1.6	-13.7	5.8	5.5
Investment in construction	3.2	-6.1	5.1	3.0
Exports	2.7	-11.6	6.9	5.3
Imports	3.4	-11.2	7.8	5.8
Unemployment rate (level)	6.6	7.4	8.5	7.7
Inflation	1.4	0.5	1.2	1.4
Industrial production	-1.0	-9.5	6.5	4.2

economic sectors (employment in services being particularly impacted). Consumers have been suffering from substantial losses in their in disposable income, due to job losses or temporary lay-off or reduction of working time, which will slash private consumption growth. Other major GDP components are set to pay a high price for the COVID-19 disruption. The combined effect of cooling global GDP growth, increasing trade frictions, policy uncertainty and the ongoing profit squeeze in the corporate sector will curb business investment in machinery and equipment at least until the third quarter of 2020, but repercussions on investment of the deteriorated economic environment have already been felt during the fourth quarter. The outlook for construction investment is relatively less negative, as the construction sector is set to be more resilient and, to some extent, less exposed to the huge repercussions of the COVID-19 lockdown. It is thus likely to achieve relatively better performance than other GDP components in 2020. In addition, government investment and public expenditure are expected to play a rather robust, countercyclical role and could provide a strong contribution to the growth of domestic demand. The role of fiscal policy in providing stimulus could be an approach, as both 'conventional' and 'unconventional' monetary policies (e.g. quantitative easing, negative interest rates) have been deployed by the ECB to a very large extent. It is expected that the ECB will provide further support until the end of the current crisis. Further measures are being discussed and/or refined, both at the EU level as well as the state level. The objective is to provide adequate support for, and liquidity to, the economy (both to households and businesses) so as to alleviate the huge costs of the economic lockdown and the related output (and job) losses.

The central EU institutions and bodies have responded to the outbreak-related economic emergency with a detailed set of measures, whose implementation will however require time (and additional political negotiations). The Stability and Growth Pact and the Fiscal Compact have been suspended. With regard to monetary policy, the ECB has extended and enhanced its ongoing Asset Purchase Programme (APP, or Quantitative Easing, QE) – that had been launched in 2015 in order to tackle the already weak economic environment. The 'augmented' APP is now called the Pandemic Emergency Purchase Programme (PEPP) will have an overall envelope of €750 billion, and will last until March 2022, including all the asset categories (i.e. government and corporate bonds) eligible under the previous APP. The ECB has also continued to provide its forward guidance, leaving its key policy rate unchanged at zero, its deposit facility rates at negative levels (-0.50%) and indicating that its key policy rates will remain at current levels as long as the economic circumstances make it appropriate (i.e. in the absence of any inflationary pressure and as long as economic conditions remain depressed). The European Commission has launched the SURE fund worth €100 billion. This will be distributed among Member States in order to provide short-time working schemes and tackle unemployment costs. The European Investment Bank

(EIB) has committed to leveraging its €25 billion guarantee fund up to €200 billion that will be available for EU Member States. In addition, the European Stability Mechanism (ESM) will make €240 billion available in the form of very cheap loans for those EU countries that might have difficulty on government bond markets (Italy, Spain etc). The above measures total some €540 billion that EU countries can use as additional resources so as to cope with the costs of the recession. Lastly, it is worth mentioning the Next Generation EU package that was agreed at the European Council last summer, and will provide support to the EU economies worth €750 billion, of which grants worth 390 billion and loans worth 360 billion. It will be financed by issuing common bonds for the first time in EU history. The core programme of the package is the so-called Recovery and Resilience Facility (RRF) and will amount to €313 billion.

Source: www.eurofer.eu

WORDSTEEL SHORT RANGE OUTLOOK APRIL 2021

The World Steel Association (worldsteel) today released its Short-Range Outlook (SRO) for 2021 and 2022. worldsteel forecasts that steel demand will grow by 5.8% in 2021 to reach 1,874.0 million tonnes (Mt), after declining by 0.2% in 2020. In 2022 steel demand will see further growth of 2.7% to reach 1,924.6 Mt.

The current forecast assumes that the ongoing second or third waves of infections will stabilise in the second quarter and that steady progress on vaccinations will be made, allowing a gradual return to normality in major steel-using countries.

Commenting on the outlook, Mr Al Remeithi, Chairman of the worldsteel Economics Committee, said, “despite the disastrous impact of the pandemic on lives and livelihoods, the global steel industry was fortunate enough to end 2020 with only a minor contraction in steel demand. This was due to a surprisingly robust recovery in China, with growth of 9.1%. In the rest of the world steel demand contracted by 10.0%. In the coming years, steel demand will recover firmly, both in the developed and developing economies, supported by pent-up demand and governments’ recovery programmes. However, for most developed economies a return to the pre-pandemic levels of steel demand will take a few years.

While it is hoped that the worst of the pandemic is passing, there is still considerable uncertainty for the rest of 2021. The evolution of the virus and progress of vaccinations, withdrawal of supportive fiscal and monetary policies, geopolitics and trade tensions could all affect the recovery envisaged in this forecast.

For the future, structural changes in a post-pandemic world will bring about shifts in steel demand shape. The steel industry will see exciting opportunities from rapid developments through digitisation and automation, infrastructure initiatives, reorganisation of urban centres, and energy transformation. All at the same time as the industry is responding to the need to produce low-carbon steel.”

Background to the forecast

1) China

China's economy quickly rebounded from the lockdown in late February, and almost all economic activity except retailing resumed full productivity by May. Since then, despite sporadic small localised waves of COVID-19, economic activity has not been affected by the pandemic, unlike the rest of the world.

The Chinese economy benefited from the government's implementation of various measures to stimulate the economy. From several new infrastructure projects and accelerating existing projects, to relaxing control over the real estate sector and tax reduction to boost household consumption.

On top of this the economy benefitted from strong exports as the rest of the world was affected by the pandemic.

As a result, after contracting by 6.8% in the first quarter of 2020, China's economy recorded annual growth of 2.3% in 2020. China's GDP growth is expected to accelerate to 7.5% or higher in 2021, followed by moderate growth of 5.5% in 2022.

The construction sector had a fast recovery from April 2020, supported by infrastructure investment. For 2021 and onwards, real estate investment growth may decrease due to the government's guidance to slow growth in the sector down.

Investment in infrastructure projects in 2020 reported a mild growth of 0.9%. However, as the Chinese government has kicked off a number of new projects to support the economy, the growth in infrastructure investment is expected to pick up in 2021 and continue to affect steel demand in 2022.

In the manufacturing sector, automotive production contracted the most by 45% during the lockdown, but has been recovering strongly since May. For the whole of 2020, auto production declined by only 1.4%. Other manufacturing sectors have shown positive growth due to strong export demand.

Due to the strong activity in the construction and machinery sectors, and with some inventory accumulations, apparent steel use rose by 9.1% in 2020. In 2021, it is expected that the stimulus measures introduced in 2020 will largely remain in place to ensure continued reasonable growth in the economy.

As a result, most steel-using sectors will show moderate growth and China's steel demand is expected to grow by 3.0% in 2021. In 2022, steel demand growth will decelerate to 1.0% as the effect of the 2020 stimulus subsides, and the government focuses on more sustainable growth. The government's reaction to the new US administration's trade policy and the intensified environmental push add uncertainty.

2) Advanced economies

After the free-fall in economic activity in the second quarter of 2020, industry generally rebounded quickly in the third quarter, largely due to the substantial fiscal stimulus measures and unleashing of pent-up demand. However, activity levels still remained below the pre-pandemic level at the end of 2020. As a result, the developed world's steel demand recorded a double-digit decline of 12.7% in 2020.

We will see substantial recovery in 2021 and 2022, with growth of 8.2% and 4.2% respectively. However, steel demand in 2022 will still fall short of 2019 levels.

Despite high infection levels, the US economy was able to rebound strongly from the first wave due to the substantial fiscal stimulus that supported consumption. This helped durable goods manufacturing, but overall US steel demand fell by 18% in 2020. The Biden administration recently announced a large fiscal proposal containing provisions for substantial infrastructure investment over a multi-year period.

The plan is expected to be considered by Congress in the second half of 2021 and, depending on its final form, may have upside potential for steel demand in the longer term. However, despite this and fast progress in vaccinations, steel demand recovery will be constrained in the short term by a weak rebound in the non-residential construction and energy sectors. The automotive sector is expected to recover strongly.

Similarly, the EU steel-using sectors suffered severely from the first lockdown measures in 2020, but experienced a stronger than expected post-lockdown rebound in manufacturing activities due to supportive government measures and pent-up demand. Accordingly, steel demand in 2020 in the EU27 and the UK ended with a better than expected 11.4% contraction. Italy and France recorded proportionately larger contractions due to the severest lockdown measures and collapsed tourism.

The recovery in 2021 and 2022 is expected to be healthy, driven by recovery in all steel-using sectors, especially the automotive sector, and public construction initiatives. So far, the EU's recovery momentum has not been derailed by the ongoing third waves, but it remains fragile.

While there were fewer COVID-19 cases relative to the US or EU, the Japanese economy was also dealt a severe blow from the pandemic due to the interruption of broad economic activity and weak confidence that added to the effect of the October 2019 consumption tax hike. With a particularly pronounced fall in auto production, steel demand declined by 16.8% in 2020. The recovery in Japan’s steel demand will be moderate, driven by a rebound in the automotive sector with recovering exports and industrial machinery because of a worldwide recovery in capital spending.

South Korea’s economy escaped a large decline in GDP thanks to better management of the pandemic, and it saw positive momentum in facility investment and construction. Nevertheless, steel demand contracted by 8.0% in 2020 due to the contraction in the auto

and shipbuilding sectors. In 2021-22, these two sectors will lead the recovery, which will be further supported by the continued strength in facility investment and government infrastructure programmes. Nevertheless, steel demand in 2022 is not expected to return to the pre-pandemic level.

3) Developing economics excluding China

Generally speaking, developing economies excluding China suffered more from the pandemic relative to the developed economies, with inadequate medical capacity, a collapse in tourism and commodity prices, and insufficient fiscal support. Steel demand in the developing economies excluding China declined by 7.8% in 2020. However, within the emerging economies, the picture was varied. India, MENA, and most Latin American countries suffered the most.

Benefitting from the global economic recovery and with renewed government infrastructure initiatives, steel demand in the developing economies is expected to show a relatively quick rebound in 2021 and 2022, with growth of 10.2% and 5.2% respectively. Accumulation of debts, no recovery in international tourism, and slow vaccination will prevent a faster recovery.

India suffered severely from an extended period of severe lockdown, which brought most industrial and construction activities to a standstill. However, the economy has been recovering strongly since August, much sharper than expected, with the resumption of government projects and pent-up consumption demand. India's steel demand fell by 13.7% in 2020 but is expected to rebound by 19.8% to exceed the 2019 level in 2021. The growth-oriented government agenda will drive India's steel demand up, while private investment will take longer to recover.

In **ASEAN**, disruptions to construction projects hit the fast-growing steel market, and steel demand contracted by 11.9% in 2020. Malaysia and the Philippines were the most severely hit, while Vietnam and Indonesia saw only a modest decline in steel demand. Recovery will be driven by a gradual resumption of construction activities and tourism, which will accelerate in 2022.

Latin American economies in general were severely hit by the pandemic and steel demand in 2020 recorded a double-digit contraction in most countries in the region. Mexico's steel demand was hard hit by reduced auto production and investment. The fast recovery in the automotive sector and a strong US economy will support the recovery of Mexico's steel demand in 2021. In Brazil, the economy rebounded sharply following a severe decline in Q2, aided by government support. As a result, Brazil's steel demand recorded a small positive growth in 2020 and will continue to recover at a healthy pace in 2021 and 2022.

Steel demand in **Russia** suffered less decline than other regions thanks to the government

measures that supported construction activities. The National Projects initiatives are expected to support a moderate recovery of steel demand in 2021-22.

Steel demand in **Turkey**, which suffered a deep contraction in 2019 due to the currency crisis of 2018, maintained the recovery momentum that started in late 2019 due to construction activities. The recovery momentum will continue and steel demand is expected to return to the pre-currency crisis level in 2022.

In the **MENA** region, steel demand suffered from the cancellation of construction projects and a fall in oil prices, but the rebound of oil prices helped the region's steel demand to recover toward the end of 2020. Steel demand in the MENA region declined by 9.5% in 2020 and is expected to recover moderately with the resumption of infrastructure investments.

Steel-using sectors

1) Construction

Global construction output in 2020 fell more than in 2009 after the global financial crisis, 3.9% and 1.9% respectively, as the COVID confinement measures led to an interruption of construction works and revision of investment plans in many countries. In several developing countries, fiscal resources were drawn away from infrastructure investment for the pandemic support programmes.

Across countries, the most severe decline in construction was observed in the Philippines, India and Mexico. There will be regional variation to the speed of recovery in construction. In some countries, the resumption of construction projects is still constrained by COVID restrictions, worker shortages, and weak private investment. At the same time, there are countries where construction activities could gain ground through the year as governments prioritise infrastructure investment as a recovery tool.

In China, the construction sector returned to normal operation at the end of April 2020 and has been showing a fast recovery since then.

Diverging trends among the construction subsectors will emerge from the pandemic. With increased remote working, e-commerce, and reduced business travel, demand for commercial buildings and travel-related facilities will continue to see a downward trend. At the same time, demand for logistics-related facilities to support e-commerce has increased and will continue to be a growth sector. Infrastructure projects have become important and are sometimes the only tool in many countries for economic recovery. They will continue to be a strong driver in emerging economies. In developed economies, green recovery programmes and infrastructure renewal will drive construction demand.

Global construction is expected to reach the 2019 level again in 2022.

2) Automotive

Globally, the automotive sectors saw the most profound decline among the steel-using sectors, with a nosedive in the second quarter of 2020. While post-lockdown recovery was somewhat more robust than expected, the decline in the automotive industry in 2020 was of a double-digit scale in most countries.

However, the automotive sector is expected to recover strongly in 2021. The recovery will be driven by pent-up demand, increased use of personal transportation due to safety concerns, and increased household cash savings. The recovery is expected to be particularly strong in the US, where the production level in 2021 will exceed the 2019 level. The global automotive industry is expected to return to the 2019 level in 2022.

Despite a faster than expected recovery in demand, the sector is encountering another supply chain bottleneck in early 2021 with a shortage of semiconductors and other parts, which could constrain the recovery potential.

Amid the crisis, 2020 saw a substantial increase in the share of hybrid and fully electric cars sales in the EU to 11.9% and 10.5% respectively, up from 5.7% and 3.0% in 2019.

3) Machinery

The global machinery sector was hit by the fall in investment in 2020, but the decline was much less than in 2009. Recovery is expected to take place at a faster pace as well, while a lack of confidence and uncertainty is still a constraining factor.

Due to highly globalised supply chains, disruption was one of the major problems that emerged for the machinery industry during the lockdown. As a result, the sector has started reviewing its supply chains for flexibility and reliability.

Another important factor that will affect the machinery sector is an accelerating trend toward digitisation and automation. Investment in this regard will drive growth in the machinery industry.

Also, green initiatives and investment in renewable energy sources will be another growth area for the machinery sector.

Source: www.worldsteel.org

INDIA'S STEEL OUTPUT REPORTS MARGINAL FALL TO OVER 19 MT IN JAN-FEB 2021

India's crude steel output fell by 1 per cent to 19.1 million tonnes (MT) during the first two months of 2021, according to worldsteel. The country had produced 18.9 MT crude steel during the same period last year. The production for the 64 countries reporting to the worldsteel was 313.1 MT in January-February 2021, registering a 5 per cent increase compared to 297.7 MT in the year ago period, the global industry body data showed.

China remained the global leader in production of steel, registering 8.86 per cent year-on-year growth in output at 173.2 MT during the said period. According to the World Steel Association (worldsteel) data, China had produced 159.1 MT steel in the same period last year. During January-February 2021, Japan's output slipped 6 per cent to 15 MT year-on-year from 16.1 MT. The US produced 13.2 MT steel in the period under review. Its output was at 14.9 MT in 2020.

Russia's output was at 12.4 MT compared to 11.61 MT in 2020.

South Korea's steel production was at 11.5 MT, as compared to 11.2 MT in the year-ago period.

Turkey produced 6.4 MT of crude steel in period under review. It had produced 5.9 MT in same period in 2020.
While Germany produced 6.4 MT steel in January-February 2021, Brazil and Iran produced 5.8 MT and 5.3 MT, respectively.

With members in every major steel-producing country, Brussels-based worldsteel represents steel producers, national and regional steel industry associations, and steel research institutes. Its members represent around 85 per cent of the global steel production.

Source: Economic Times

HOW CHINA'S SURGE OF IRON ORE IMPORTS SEEMS TO BE IMPACTING GLOBAL STEEL PRODUCTION

Back in the first quarter of 2020, China imposed economic lockdowns to combat the spread of coronavirus—an action that initially hit global prices of iron ore. But since reopening, China's economy has significantly bounced back into growth, causing a major swing in demand for steel production, and a record breaking August for iron imports.

Global steel production recovered in response, pushing steel and iron producers such as Cleveland-Cliffs Inc. (NYSE:CLF), ArcelorMittal (NYSE:MT), Vale S.A. (NYSE:VALE) and Rio Tinto Group (NYSE:RIO) to respond to rising demand, while also pushing further demand for materials such as fluorite from producers like Ares Strategic Mining Inc. (TSXV:ARS) (OTCQX:ARSMF).

A key ingredient in the making of steel, the issue of the fluorite (or "fluorspar") supply is integral to steel's resurgence. Earlier this year, price increases in China suggested a coronavirus supply disruption. Domestically, the only currently producing fluorspar mine is

the Lost Sheep mine in Utah, owned and operated by Ares Strategic Mining Inc. (TSXV:ARS) (OTCQX:ARSMF).

The firm has begun investing in the upgrade of the Lost Sheep mine's facility, with expanded mine designs, and a new high-capacity plant to significantly increase production capacity, make Ares the only domestic supplier of products such as acidspar and metspar. Ares projects that the equipment to upgrade operations will only cost roughly US$3 million to acquire and install.

Bolstering their ambitions, Ares also recently announced a new fluorspar discovery on Lost Sheep's permitted mining area, with very promising results. The newly discovered zone connects two known mining sites on the property and expands the preliminary mining plan scope. All 5 drill holes within the new zone intersected fluorspar mineralization, with boundaries still remining open.

"The high-grade results from the last drill program gave us a great insight into the geology and layout of the subsurface fluorspar mineralization, and directed the Company towards locations where high-grade fluorspar was likely located," said James Walker, President and CEO of the Ares Strategic Mining. "The first drill holes have confirmed that Ares' geological assessment were correct… Ares can now consider expanding its proposed production capacity and processing facilities at its mine and anticipates secondary and tertiary mining operations at other sites alongside its Giant Little Pit operation."

The news of the discovery further encouraged Ares' management and shareholders, as Walker added: "The Company and its staff are excited at the tangible near-term and long-term prospects, and are looking forward to commencing operations and being the only domestic supplier of metspar and acidspar to the U.S."

Steel Demands rebalancing the fluorspar value Chain

Prior to China's v-shaped recovery, predictions were being made regarding a rebalance of fluorspar's value chain. Known also in the industrial space as fluorite, fluorspar is used to produce and trade globally two primary commercial grades: metallurgical and acid-grade.

Acid-grade product normally sells at a premium, and is used in making hydrofluoric acid and aluminum, while metallurgical (aka "met-spar") is primarily used in steel production.
Using a flotation method, Ares can upgrade its product easily from the natural occurring metspar to the premium acidspar, which comes with a nearly $200/tonne increase in price.

From an environmental standpoint, Ares's Lost Sheep product contains no sulphides or arsenic, unlike currently imported fluorspar from other parts of the world. Steel mills require roughly 15-20lbs of fluorspar per ton of steel, while aluminum producers require 50-60lbs of

high-grade fluorspar per ton of aluminum. Ares has already established a customer base that exceeds US$10 million, and is in discussions with four major offtake partners. The mine is currently supplying small shipments of metgrade fluorspare to steel producers, however, Ares states that all of their metspar customers have also requested acidspar products.

In the US steel space, iron ore miner Cleveland-Cliffs Inc. (NYSE:CLF) shocked the market in September, with their plans to become a steel giant through the acquisition of ArcelorMittal USA from ArcelorMittal (NYSE:MT).

The unexpected transaction set Cleveland-Cliffs stocks ablaze, as shares went up 13.4% in midday trading, while ArcelorMittal shares soared more than 10%. As the largest US producer of iron ore pellets, Cleveland-Cliffs announced a $1.4 billion purchase of ArcelorMittal's US assets, while recognizing that steel production in the US is recovering as auto plants resume operations.

"We have been through a very profitable quarter and very strong in terms of the recovery of demand particularly in automotive," said Cleveland-Cliffs CEO Lourenco Goncalves.
Following the deal, Cleveland-Cliffs will now be the largest flat-rolled steel producer in North America, with approximately 17 million net tons in 2019 of combined shipments—which could require between 255-340 million pounds of fluorspar to produce.

Internationally, the scramble for steel production continues to cause effects on the market as a whole. Rio Tinto Group (NYSE:RIO) is in the midst of a significant decision on whether or not they'll engage on a costly but coveted African project that "represents a major threat to long-term iron-ore prices." Ahead of that decision, the metal giant is set to develop bonded area operations for blending iron ore at China's port of Dalian. While Rio Tinto is looking to increase its iron production and retain the distinction of the world's largest iron ore producer, the previous world leader, Vale S.A. (NYSE:VALE) is embroiled in a case from federal prosecutors in Brazil to cancel an agreement between the company and the Brazilian government following a tailings dam collapse in Brumadinho.

However, some of the mines linked to the dams in the case are vital to Vale's plans to recover lost iron ore production and grow capacity to 400 million tonnes per year. At this level, Vale would regain its status as the world's largest producer of the steel-making raw material. Looking ahead, the resurgence of demand from China, has Vale exploring new options to prioritize exports from Brazil to China in the future, including a new deep-water port, much like Rio Tinto's ambitions. Ultimately, China remains in the driver's seat of the global steel market.

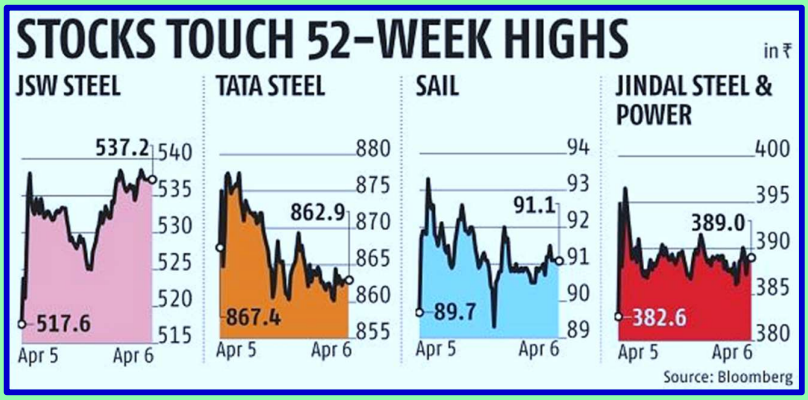
Source: www.hellenicshippingnews.com

STEEL PRICES HIKED BY RS 5,000 A TONNE ON GLOBAL RALLY, IRON ORE RISES TOO

The last time steel price rose was in Jan when it touched an all-time high. But it came off

those highs as China moved into the new year holiday season on pressure from end users in domestic market

After a pause, prices of steel and iron ore are on the rise. Steel companies have increased prices by up to Rs 5,000 a tonne beginning April while state-owned iron ore producer, NMDC has hiked prices of lump ore by Rs 500 a tonne.



Steel producers said that prices of hot rolled coil – a benchmark for flat steel (used in automobile, domestic appliances and construction) – have been increased by Rs 4,500-5,000 a tonne; prices of long steel (used in infrastructure and construction) have increased by up to Rs 3,000 a tonne.

Post-increase, the price of HRC is at Rs 57,600; in longs, TMT is at Rs 52,500. The increase in steel prices is led by a surge in global prices.

Ranjan Dhar, chief marketing officer, ArcelorMittal Nippon Steel India (AM/NS India) said, price parity of the world has been changing from last year onwards.

"HRC (hot rolled coil) prices in Europe is inching towards $1,000 a tonne, in West Asia to around $900 and China $870. The difference between average global price and Indian HRC price is about Rs 11,000 a tonne," he added.

"We are looking at providing support to MSMEs, but overall, it appears that the market has gone through a structural change," Dhar further said.

The last time the price of steel increased was in January when it touched an all-time high. However, it came off those highs as China moved into the new year holiday season on pressure from end users in the domestic market.

Producers rolled over prices in February and in the early part of March, prices dropped by about a Rs 1,000 a tonne. But sentiments started improving towards the middle of March and prices in the trade segment showed an upward trend.

The trend is across the value chain.

An India Ratings report said, international iron ore prices in mid-March were at $195 a

tonne, $8 a tonne lower month-on-month, but still at elevated levels with prices in mid-March 2021 being 81 per cent higher year-on-year.

That played out in the domestic market as well. NMDC had kept prices unchanged from February to beginning March. But effective March 21, prices of lump ore and fines were revised upwards.

Lump ore prices were increased to Rs 5,350 a tonne from Rs 5,100 a tonne and fines from Rs 4,200 a tonne to Rs 4,310 a tonne. Prices were increased again effective April by about Rs 500 in lump ore and Rs 250 a tonne in fines.

Domestic pellet prices, according to the India Ratings report, were at Rs 12,125 a tonne in mid-March, up five per cent month-on-month and 92 per cent year-on-year.

Analysts expect, prices to remain strong in the months ahead on the back of domestic demand and cues from China.

Domestic steel consumption over April 2020-February 2021 at 79.2 million tonnes was down by only 8.8 per cent despite Covid-19, reflecting the improving end-use demand, the India Ratings report mentioned.

Steel prices in the domestic market have been on an uptrend since July last year and that reflected on steel stocks.

Globally, measures in China are expected to lend support to prices. China is looking to reduce its steel output to curb pollution and according to World Steel Association, its crude steel output stood at 83 million tonnes in February, which was lower than 90 million tonnes in January, even though year-on-year it was higher by 10.9 per cent.

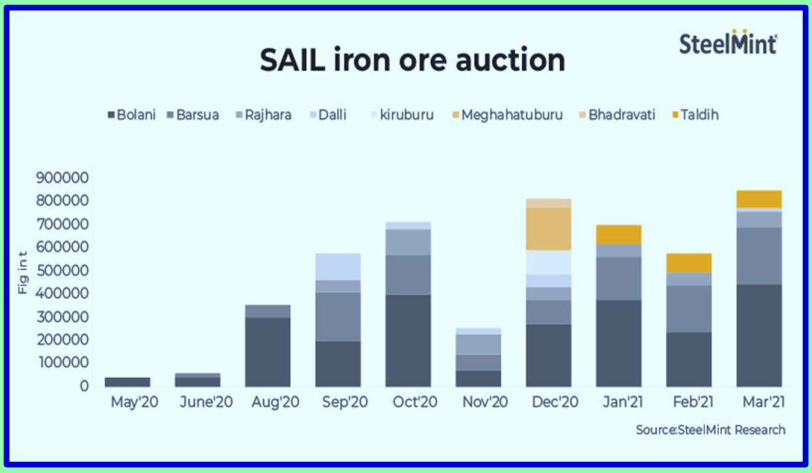
Source: Business Standard

INDIA: SAIL RECORDS ROBUST IRON ORE SALES OF OVER 850,000 T AT AUCTIONS IN MAR 2021

PSU steel producer Steel Authority of India Ltd. (SAIL) posted robust sales of over 850,000 t of iron ore fines at auctions in Mar'21 - significantly higher compared to a little over 570,000 t in Feb'21. Iron ore mines under SAIL's Raw Materials Division (RMD) in Odisha, Jharkhand and Karnataka and those under Bhilai Steel Plant in Chhattisgarh produced 22.5 mn t of iron ore in FY21. As per SteelMint data, SAIL has auctioned around 4.7 mn t of iron ore fines between May'20 and Mar'21.

Nearly 700,000 t of iron ore fines went under the hammer from the company's Bolani and Barsua mines in Odisha in Mar'21, while 80,000 t was allocated from the Rajhara and Dalli mines in Chhattisgarh. The Taldih mine in Odisha supplied another 80,000 t of material for

auctions in Mar'21. Notably, Bolani produced 6.24 mn t of iron ore in FY21 - the highest among all SAIL mines.



As per SAIL's recent disclosure, the steel-maker despatched 22.8 mn t of iron ore in FY21. Chairman Soma Mondal told the media recently that "apart from higher cash collections due to increased steel sales, the company is augmenting cash flows through auctions of iron ore and fines." Notably, iron ore dumps and tailings form a chunk of the total fines sales at periodic auctions.

The MMDR Amendment Act, 2021 allows government companies to sell up to 50% of total annual iron ore production in the open market after meeting captive requirements and by paying an "additional amount". The aim is to augment iron ore supplies for downstream users.

Bids rise for high-grade ore

Robust downstream demand triggered strong sales at SAIL auctions in Mar'21, SteelMint notes, with high-grade material attracting high bids at auctions on limited availability. For instance, 64,000 t of Fe 62.5% fines received bids at INR 4,260-4,280/t (excluding royalty) at SAIL's Bolani auction on 20 Mar'21. The bids were INR 500/t higher compared to INR 3,810-3,830/t bids received for similar grade material from Bolani mine on 12 Feb'21, SteelMint learnt from sources.

Iron ore prices are staying firm due to paucity of lumps and high-grade ore in the market. SteelMint has reported that some merchant miners have exhausted their annual EC limit in Odisha. However, overall supplies have steadily increased since operationalisation of auctioned leases in the state. In addition, healthy steel margins are supporting iron ore prices: PSU miner NMDC has hiked prices in the beginning of Apr'21 in conjunction with merchant miners.

SteelMint assesses weighted average prices of iron ore (Fe 62.5%) from SAIL's Bolani mine in Odisha at INR 4,270/t in Mar'21 vis-a-vis INR 3,820/t in Feb'21 - an increase of INR 450/t. However, prices of Fe 60-61% ore from BSP's Chhattisgarh mines are flat at INR 3,350/t (m-o-m).

Source: www.steelmint.com

BASE METALS PRICES MAINLY HIGHER, WITH NICKEL GETTING INTO GEAR TOO

Copper is once again pushing ahead with its advance toward $10,000 per tonne, Tuesday April 27, and such is the upward momentum now across most of the complex that it has woken nickel up from its two-month slumber in low ground.

- Market focused on economies that are recovering...
- ...less so on the areas where Covid-19 is raging

Base Metals

Most of the LME three-month base metals prices were higher this morning, the exception was zinc ($2,922.50 per tonne) that was off by 0.2%, while the rest were up by an average of 0.4%, led by a 0.8% rise in nickel ($16,815 per tonne, which looks set to breakout of its two-month sideways trend. Copper was up by 0.6% at $9,837.50 per tonne – the highest it has been since August 2011 and closing in on its all-time high at $10,190 per tonne from February 2011.

The most-active base metals contracts on the SHFE were up across the board this morning with gains averaging 1.7%, skewed by a 3% rise in June nickel prices. But with June copper showing strong gains of 2.4% to 72,030 yuan ($11,099) per tonne recently and June zinc up by 2.2%, the strong gains are widespread.

Precious metals

The precious metals were for the most part little changed, with spot gold up by $0.60 per oz at $1,781.94 per oz. Palladium was the main mover with a 0.5% gain to $2,933 per oz, Monday's fresh all-time high was $2,944.50 per oz.

Wider markets

The yield on US 10-year treasuries was slightly firmer again this morning and was recently

quoted at 1.58%, this after 1.57% at a similar time on Monday. Asian-Pacific equities were mainly weaker on Tuesday: the ASX 200 (-0.21%), the CSI 300 (-0.07%), the Nikkei (-0.31%) and the Kospi (-0.11%), the exception was the Hang Seng (+0.25%).

Currencies

The US Dollar Index was consolidating in low ground this morning and was recently quoted at 90.92, this after a 90.67 low on Monday. The index is now in the lower half of the year-to-date range. In the first quarter, the Index rallied from a multi-year low at 89.21 to a high of 93.44.

The other major currencies were mixed this morning: the euro (1.2074) and sterling (1.3892) were consolidating, the Australian dollar (0.7796) was firmer and the yen (108.24) was weaker.

Key data

Key economic data already out on Tuesday showed Japan's core consumer prices (CPI) were flat in March, after a 0.2% decline in February. The Bank of Japan also kept its policy rate at -0.1%, where it has been for years. Later there is data on realized sales from the Confederation of British Industry and US data on house prices, consumer confidence and the Richmond manufacturing index.

Today's key themes and views

Copper and aluminium are setting new multi-year highs, zinc and tin are close to following, while lead is accelerating higher and nickel is trying to break higher too. Once again, the metals have upward momentum after their period of consolidating during March and the first half of April. The metals were vulnerable while they consolidated, but only nickel was hit hard on the downside, the fact the rest were not hit hard suggests underlying sentiment has remained generally bullish, which means the path of least resistance remains to the upside – even if some of the macro data suggests otherwise. For now, Wall Street seems to have shaken-off concerns over US President Joe Biden's tax changes, but there is a risk that when the details are signed off by Congress the market has another reaction. We still see the main risk to the metals' bull market is if equities correct lower. With other markets looking stronger again, gold's recent show of strength is consolidating. Demand for other haven assets has also eased – the yen is weaker and treasury yields are firmer.

MARKET SNAPSHOT 6.14 AM (BST)				
London Metal Exchange	Price		Change	
Copper ($/tonne)	9,837.50	▲	60	0.6%
Aluminium ($/tonne)	2,410	▲	6	0.2%
Nickel ($/tonne)	16,815	▲	135	0.8%
Zinc ($/tonne)	2,922.50	▼	5	0.2%
Lead ($/tonne)	2,085	▲	7	0.3%
Tin ($/tonne)	27,200	▲	50	0.2%
	Average base metals	▲	**0.3%**	
Shanghai Futures Exchange	Price		Change	
Copper - Jun (yuan/tonne)	72,030	▲	1,670	2.4%
Aluminium - Jun (yuan/tonne)	18,510	▲	165	0.9%
Nickel - Jun (yuan/tonne)	125,790	▲	3,640	3.0%
Zinc - Jun (yuan/tonne)	22,225	▲	480	2.2%
Lead - Jun (yuan/tonne)	15,445	▲	110	0.7%
Tin - Jun (yuan/tonne)	186,410	▲	1,580	0.9%
	Average base metals	▲	**1.7%**	
Rebar - Oct (yuan/tonne)	5,397	▲	15	0.3%
Dalian Commodity Exchange	Price		Change	
Iron ore - Sep (yuan/tonne)	1,151	▲	14	1.2%

PRECIOUS METALS				
Spot	Price		Change	
Gold ($/oz)	1,781.94	▲	0.60	0.0%
Silver ($/oz)	26.21	flat	0.00	0.0%
Platinum ($/oz)	1,249	▼	1	0.1%
Palladium ($/oz)	2,933	▲	15	0.5%
	Average precious metals	▲	**0.1%**	
Shanghai Futures Exchange	Price		Change	
Gold - Jun (yuan/gram)	373.42	▼	0.56	0.1%
Silver - Jun (yuan/kg)	5,427	▲	12.00	0.2%
	Average precious metals	▲	**0.1%**	
Source: Fastmarkets				

ECONOMIC CALENDAR					
BST	Country	Data	Actual	Expected	Previous
4.02am	Japan	BOJ outlook report			
4.02am	Japan	Monetary policy statement			
4.02am	Japan	BOJ policy rate	▼0.1%	▼0.1%	▼0.1%
5.59am	Japan	BOJ core CPI y/y	0.0%	▼0.2%	▼0.2%
Tentative	Japan	BOJ press conference			
11.00am	UK	CBI realized sales		9	-45
2.00pm	US	HPI m/m		▲1.0%	▲1.0%
2.00pm	US	S&P/CS composite-20 HPI y/y		▲11.8%	▲11.1%
3.00pm	US	CB consumer confidence		113.1	109.7
3.00pm	US	Richmond manufacturing index		22	17
Source: Fastmarkets					

Source: www.metalbulletin.com

INDIA LEAD ACID BATTERY MARKET 2016 – 2020

The Market Forecast

IESA estimates the overall market size for lead acid battery in India at around INR 27,000 Crore (USD 4.2 billion) in 2015-16. Out of this, the share of batteries in stationary and motive application is around INR 12,650 crore (USD 1.9 billion). Due to a number of

Governmental and consumer side pull, the market for lead acid batteries in those two applications is poised for a major growth going forward and having consulted the relevant stakeholders, IESA now forecasts the market size at around INR 24,900 crore (USD 4 billion) by 2020 representing a CAGR of 13% in the next 5-year period.

Application of Lead Acid Batteries

In current market scenario, Inverter and UPS applications take the major share of 60% of the stationary and motive battery market. In future years, home inverter segment market growth will be stagnant (7% - 8% growth) due to improved power scenario and use of common power back up in new townships and societies in urban areas. Increase of automation in Indian C&I segment with scattered location of IT offices and Data Centres in Tier 2 and Tier 3 cities makes mandatory use of UPS in India. It leads to a healthy growth (10%-15%) in the segment.

Key applications that will boost the market is application of storage in renewable integration, especially solar PV and wind (CAGR > 50%). With Government of India's ambitious target of 100 GW solar, there is a huge opportunity for battery storage. To solve the issue of solar ramping and intermittent nature of solar (both rooftop and large plants), storage is the key enabler to provide reliable power. Similarly, in wind, issues such intermittency and curtailment have necessitated the

Survey of Top Scientists and Researchers in USA

Stanford University in USA has conducted survey of 2% Scientists and Researchers working in USA. Fifty one of the Scientists and Researchers belong to University of Milwaukee Wisconsin USA. Four Indians belonging to the Indian community. They names are as mentioned below:

1. Prof. Pradeep Rohatgi
2. Prof. Krishna Pillai
3. Prof. Devendra Kumar Gupta
4. Prof. Anoop Dhingra

Prof Pradeep Rohtagi is a Life Fellow of IIM Delhi Chapter. Prof. Anoop Dhingra is the son in law of Mr. S C Suri, Hon. Member of Delhi chapter.

Congratulations to all the above listed Indian Scientists and Researchers.

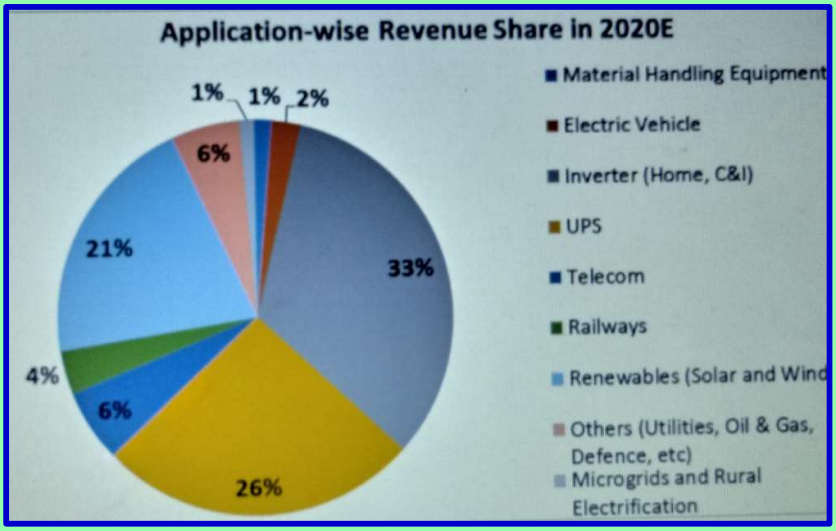
application of batteries. To IESA's knowledge, all wind power generators are looking for 1 Hour to 2 Hours storage due to evacuation problem and also for the 15-minute scheduling that has been laid out as a rule for grid discipline.

With Governments National Electric Mobility Mission and incentive for electric vehicles (EV) and promotion of e-rickshaw already making this market very attractive. In future this segment will be one of the highest growing sectors for high energy density / high specific energy lead acid battery with an estimated 40% growth between 2016 and 2020. Apart from the more conventional 2-wheeler and 4- wheeler segments, the adaptability of NEVs in private segment like hotels, resorts, golf course large SEZS and government premises like Airport, railways offer significant potential for growth. Telecom is one of the most promising segments for battery use, but the adaptation of newer technologies like Li-Ion or Flow battery is giving tough competition to use of Lead acid battery for telecom towers.

With the increase in railway network and ambitious target of metro trains with introduction of bullet train may lead this segment as one of the attractive segments for lead acid battery manufacturers (with growth prospect of 4%). With the formation of the National Smart Grid Mission (NSGM) and few smart grid pilot projects, it is evident that India is adopting smart utilities for reliable and quality power. So, there is a huge opportunity for battery installation in this segment for applications like ancillary services, load balancing and grid storage and IESA estimates a growth rate of 23% in these segments.

Consolidation of the Sector

Unorganised market takes a market share of 30-40% of the market and leaving the rest for the organised market. IESA has observed that local manufacturers in the unorganised market provide a 20-30% cheaper option than branded products with similar configuration. However, going forward, IESA expects the organised market getting consolidated through acquisition of small players by larger ones. In addition, unorganized players are more likely to wind down due to stringent rules on recycling and manufacturing process. The organized sector is



currently dominated by few major/top players, which includes EXIDE, AMARA RAJA, few growing companies LUMINOUS, HBL, Enersys and other emerging/upcoming companies includes Eastman, ARISE, Base Corporation and Rocket Batteries etc. Newer application and more demanding performance requirement (long duration, higher DoD, higher cycle life) encourage many new technology players to enter the Indian battery market. It will create healthy competition in R&D and will open the market for advanced lead acid batteries.

Source: www.indiaesa.info

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