worldsteel Short Range Outlook April 2022 Appendix

China

The 2021 first half recovery in China's steel demand slowed down sharply in the second half as the real estate market weakened due to tough government measures on developers' financing. Infrastructure investment also failed to recover due to local government financing constraints. From August 2021 the manufacturing sector slowed down, though exports supported some sectors like machinery and automotive. Shipbuilding and container production remained firm amid the backdrop of global shipping congestion. As a result, despite a strong rebound of 12.0% in steel demand in the early part of 2021, demand in the second half contracted by 18.5%, leading to an overall decline of 5.4% for the year.

In 2022, stimulus measures focused on infrastructure projects are expected to have a positive impact on steel demand and the real estate sector may improve later in 2022. China's manufacturing exports remained strong in 2021, but are expected to weaken slightly following the recovery in supply chain bottlenecks abroad. Overall steel demand is expected to remain flat in 2022. In 2023, the carryover of the stimulus effect from 2022 will support steel demand, but this will be balanced by environmental pressure. China's steel demand in 2023 is expected to increase slightly by 1.0%.

With inflation within a reasonable range and low trade dependence with Russia, the impact of the war in Ukraine will be limited, but the weakening global economic outlook may undermine China's exports. Continued and expanding outbreaks of the COVID virus and local lockdowns also constitute a downside risk. However, if the impact of external factors weighs too heavily on economic performance, the stimulus measures could be scaled up to result in stronger demand for steel.

Advanced economies

Despite the COVID waves and some supply chain issues in the manufacturing sector, steel demand in the EU and the US recovered strongly in 2021. However, the outlook for 2022 has weakened due to inflationary pressure, which is further reinforced by the events surrounding Ukraine.

The impact of the war is expected to be larger in the **EU** due to its close trade and energy links with Russia. Russia is the fifth-largest trade partner of the EU, accounting for 5.8% of the EU's total trade in 2021. Energy takes the lion's share of the EU's imports from Russia: about 45% of the EU's gas imports and 25% of oil imports come from Russia. Italy and Germany appear most vulnerable among major EU countries, as their dependence on Russian gas exceeds 45% of gas consumption.

The war in Ukraine will further delay the manufacturing sector's recovery from the shortage of semiconductors, with the automotive industry the most vulnerable sector. Construction activities will be affected by high materials costs. As a result, the EU's steel demand in 2022 is expected to contract slightly, a substantial downward revision from worldsteel's October 2021 SRO. In 2023, we expect the situation to stabilise, and accelerating investment in the energy transition will provide some positive momentum for steel demand in the region.

The situation in the **US** is different as it is relatively insulated from the direct economic impact of the war in Ukraine. It is expected that the economy will maintain strong momentum although high inflation is a concern, with CPI approaching 8% in February 2022, the highest since the early '80s.

Steel demand recovered strongly in 2021 due to strong multi-unit residential construction and durable goods. However, auto production increased only modestly because of supply chain bottlenecks. The recovery is expected to continue in 2022 and 2023, albeit at a slower rate, reflecting the high base effect and monetary policy tightening to tackle inflation. Steel demand will be supported by a recovery in non-residential construction, auto production, and investment in the energy sector as well as capital investment projects as a consequence of the infrastructure bill. However, surging oil prices and volatile financial markets pose downside risks to the outlook.

In developed Asia, **Japanese** steel demand increased by 12.3% in 2021 after falling by 10.4% in 2020, due to the National Resilience Programme and a recovery in exports. Steel demand is expected to continue with a moderate recovery in 2022 and 2023. Construction will be backed by strong public investments and demand for logistics facilities and data centres, while supply constraints and rising resource and energy costs will continue to exert a negative impact. Automobile production will see a recovery, as supply constraints are expected to improve from the previous year, even though they may not be resolved entirely. In the industrial machinery sector, both external and domestic demand are expected to continue to support its growth, benefiting from expanding infrastructure and capital investment.

South Korea's steel demand suffered only mildly from the pandemic and experienced a sound recovery in 2020-21, backed by solid export performance and corporate investment, despite contracting construction activity. The strong COVID wave in the first quarter of 2022 did not seem to impact economic activities seriously. Only moderate growth in steel demand is expected In 2022 and 2023 due to limited growth in automotive, despite improving demand from construction and shipbuilding.

Developing economies excluding China

In the developing economies, recovery from the pandemic faced more challenges due to lower rates of COVID vaccination, continued virus waves, and surging inflation, which prompted a monetary tightening cycle in many emerging economies.

India

The third wave of COVID-19 in early 2022 was short-lived and did not greatly affect economic activities; India's quarterly GDP touched pre-COVID levels in Q4 2021, and growth is expected to normalise gradually, supported by the government's push for investment and healthy recovery in services. However, the manufacturing sector slowed down as high inflation affected consumer sentiment and investment.

In 2022, construction and manufacturing will likely be supported by spending on infrastructure and a gradual revival in automotive production, with an expected improvement in semiconductor supply. Expected raw material supply constraints in the international market will result in higher domestic mining output and support the capital goods sector.

However, the war in Ukraine poses a renewed risk of supply disruption and inflation, which may impact the central bank's accommodative stance and consumer sentiment.

Steel demand in **ASEAN** has been slow to recover from the pandemic due to continued disruptions to construction activities and a slow recovery in tourism. Supply bottlenecks further contributed to slower than expected recovery of manufacturing. However, a stronger recovery momentum has been visible since Q3 2021. COVID cases remain high as of Q1 2022, especially in Vietnam. Still, countries are gradually opening up, and a visible recovery in construction projects is expected in 2022, allowing a return to a more normal growth track.

Turkish steel demand showed double-digit growth during the pandemic and the following year. However, an unorthodox monetary policy has led to another round of currency depreciation and deteriorating economic performance in 2022. The government’s measures to support construction and supply chain normalisation will allow moderate steel demand growth in 2022 and 2023. With its relatively high dependence on Russia for inputs and raw materials, the Russia-Ukraine conflict has significant downside risks for Turkey through inflation and currency volatility.

While the recovery in steel demand in the **GCC** countries lagged behind other regions in 2021, GCC steel demand will accelerate with the resumption of construction projects that will be further boosted by lessening budget pressures and easing of COVID-19 related restrictions. The UAE is likely to lead the recovery, while Saudi's continued effort for economic diversification is expected to drive steel demand growth in the GCC region in the coming years.

In **North Africa**, a resumption of tourism, a rebound in commodity prices, and the rollback of pandemic-induced restrictions supports the economy recovery. A modest recovery in steel demand is expected, led mainly by infrastructure-driven growth in Egypt. However, rising energy and food prices pose a serious challenge to the region's growth.

After a year of solid rebound from the pandemic in 2021, **Latin America** is facing a challenging environment in 2022. Steel demand surged by 26.6% in 2021, following a contraction of 8.8% in 2020, led by Brazil. However, in 2022, the Latin American economy faces challenges from rising inflation, uncertainty related to elections, and social tensions in some countries. The war in Ukraine and the US monetary tightening will add further pressure to these challenges. The region's steel demand is expected to contract in 2022, as Brazil and Mexico, the region's two largest steel using countries, are expected to face challenges in maintaining their economic momentum. In particular, Brazil's steel demand is expected to contract by 8.5% in 2022. A moderate recovery is expected for the region in 2023.

The current war between Russia and Ukraine makes it difficult to provide any credible projections for these countries. A major decline of steel demand in both countries is penciled in under the assumption that military actions will end in the course of 2022 and reconstruction activities will start in Ukraine in 2023. The sanctions on Russia are expected to be sustained.

Steel using sectors

Construction

In 2021, global construction activity continued to recover from the lockdowns, to record 3.4% growth despite a contraction in China. The recovery was driven by an infrastructure push as part of most recovery programmes.

Strong infrastructure initiatives in many countries and investments related to the energy transition will likely drive the construction sector's growth for years to come. However, the construction sector is facing some headwinds. Like other sectors, the global construction sector is experiencing supply-side problems, leading to increased construction costs. Also, the move of central banks to raise interest rates to fight inflation may play a negative role in the growth of construction activity in 2022-23.

The residential sector was performing well due to low interest rates and the expansion of working from home practices. Accelerated inflation is forcing buyers to rush into property markets, using them as a hedge. However, rising housing prices might undermine future housing affordability for some social groups. In the non-residential sector, while office buildings suffered from remote working practices, e-commerce and IT-related investments supported the sector.

On a regional basis, there is strong growth in the multi-unit segment in the US. Also, infrastructure investment will get some positive momentum driven by the infrastructure bill of 2021. Recovery in energy-related investments is also expected to boost construction activities in the US.

In China, with government policies in place to tame the real estate sector bubble, infrastructure will be the main driver for the recovery of the construction sector. Residential construction might also get some small support from stimulus measures.

In India, infrastructure in four key areas – national highways, railways, water infrastructure & government housing will remain the main driver of construction growth. New projects in the residential real estate segment are also expected to gather pace.

In Brazil, after robust growth in 2021, the construction sector is expected to report moderate growth in 2022 due to the monetary tightening cycle and the US interest rate hikes.

A strong rebound in energy prices significantly improves the prospects of the construction sector in oil exporters. In the GCC, construction activities are expected to accelerate with the resumption of construction projects that will be further boosted by relaxing budget pressures and easing of COVID-19 related restrictions.

Automotive

The recovery of the global auto industry in 2021 was disappointing as supply chain bottlenecks reversed the strong momentum seen in the first half of the year. Auto production contracted in the second half of 2021 in most countries, and global auto production ended the year with only marginal growth. Supply chain problems also led to reduced choice for buyers and increased prices. It had been expected that the supply bottlenecks would dissipate in the second half of 2022. However, the war in Ukraine is likely to delay any return to normal, especially in Europe.

In China, automobile production grew by 4.8% in 2021 and is expected to continue its growth in 2022-23. New energy vehicles production jumped by 1.6 times to 3.55 million units, accounting for 13.6% of total vehicles production in 2021.

The recovery in US auto production in 2021 was also severely dampened by supply chain problems. In 2022-23, pent-up demand is expected to drive the production of light vehicles.

While global auto production slumped due to the pandemic, the EV segment grew exponentially. Global sales of EVs in 2021 reached 6.6 million units, almost doubling from 2020. The share of EVs in total car sales increased from 2.49% in 2019 to 8.57% in 2021. The trend is driven by toughening government regulations against car emissions and will impact other sectors, including the development of relevant infrastructure.