MARKET INSIGHT January 2020

NORFOLK IRON & METAL

ECONOMIC NEWS

For the first time in history, the US economy has started and ended a decade without a recession

of old age."

In the case of the American economy over the past decade, it rings true.

As of December, the U.S. economy has expanded for a record 126 straight months, the longest time period in the country's history according to the National Bureau of Economic Research. Put another way, the U.S. has avoided a recession for an entire calendar decade for the first time ever.

"It is unusual that this has been such a persistent recovery," Michelle Meyer, chief U.S. economist at Bank of America Merrill Lynch, told CNBC.

Economists cite a few reasons for why the expansion has lasted for so long. For one, the U.S. was coming from a low point at the end of the last decade. Much of the expansion over the past ten years has been spent recovering from the Great Recession.

"It's almost hard to imagine how awful that time was," said David Wilcox, former director of the Division of Research and Statistics at the Federal Reserve Board and a current senior fellow at the Peterson Institute.

Job growth, for example, has recovered more slowly than in

JOB MARKET ENDS 2019 WITH DISAPPOINTING 145,000 **GROWTH IN PAYROLLS**

The U.S. jobs market ended 2019 on a sour note, with December's payroll and wage growth missing expectations, according to Labor Department figures released Friday.

Nonfarm payrolls increased by just 145,000 while the unemployment rate held steady at 3.5%. Economists surveyed by Dow Jones had been looking for job growth of 160,000. The jobless rate met expectations for staying at a 50-year low.

In addition to the slow payroll growth, average hourly earnings rose by just 2.9%, below the 3.1% projection. December marked the first time that wage gains were below 3% on a year-over-year basis since July 2018.

Revisions to the October and November counts brought those two months down by 14,000 as well. The glittering 266,000 initial estimate for November came down 10,000 while October's fell from 156,000 to 152,000.

"After a strong 256,000 gain in payrolls in November, boosted by the return of 40,000 GM workers, some slowdown in the pace of job gains in December was inevitable," Michael Pearce, senior U.S. economist at Capital Economics, said in a note. Pearce characterized the job growth as "solid" even though it missed estimates, and said "we expect solid gains in payrolls to extend through 2020."

Dow futures turned negative following the disappointing report.

On the upside, a separate, more encompassing measure that includes discouraged and underemployed workers fell to 6.7%, the lowest it's ever been in records going back to 1994. The decline came amid a drop of 140,000 in people working parttime for economic reasons.

There's a saying among economists that "expansions don't die previous economic booms, in part because unemployment was so high during the financial crisis. As some economists have said, the deeper the hole, the longer it takes to climb out.

> Overall, economic expansions have started to last longer in the post-war period. The NBER, which keeps the official tally of recessions in the U.S., found expansions have lasted an average of 58.4 months from 1945 to 2009, compared to 35 months from 1919 to 1945. One reason for this, economists say, is that policymakers have gotten better at responding to changes in the economy while inflation has remained subdued.

> Wilcox, who was a senior advisor to Federal Reserve Chairs Ben Bernanke, Janet Yellen and Jerome Powell, said stimulus efforts from policymakers during the financial crisis, like quantitative easing, were an important ingredient in fostering the length of the economic recovery today.

> The Fed has kept borrowing rates low throughout the decade, gradually raising them from the end of 2015 through 2018, only to cut quickly again in 2019 to try to fend off any uncertainty in the economy. The central bank's balance sheet sits at roughly \$4 trillion, quadruple its size in 2008.

> "Even today, a decade later, we're still running off some of the aftereffects of the extraordinary support that was put in place," Wilcox said. Continue reading at: CNBC, 12/20/2019

> The labor force participation rate held steady at 63.2% as the workforce rose by 209,000 to 164.6 million and those considered no longer in the job pool fell by 48,000 to 95.6 million.

> The total employment level rose to 158.8 million, also a fresh high. However, the unemployment rate for African Americans rose 0.3 percentage points to 5.9%.

> For the year, payrolls increased by 2.1 million, an average of 176,000 a month, the slowest year for job creation since 2011 - three years after the start of the financial crisis - and down considerably from the 2.7 million positions added in 2018.

> The numbers follow a year of anxiety about a potential recession on the horizon. While fears of an outright downturn have largely been eradicated, recent surveys among corporate executives show a high level of unease about slowing growth.

> Job gains in December came primarily from retail (41,000), leisure and hospitality (40,000) and health care (28,000).

> Construction rose by 20,000 and professional and business services saw an increase of 10,000, while manufacturing declined by 12,000, transportation and warehousing lost 10,000 and mining fell by 8,000.

> It was a difficult year for manufacturing jobs: The sector saw a net gain of just 46,000 compared with a 264,000 gain the year before. The U.S. and China spent the year locked in a trade battle that saw billions of dollars in tariffs exchanged between the two sides.

> The average work week, considered a good indicator for employers' future intentions, held steady at 34.3 hours.

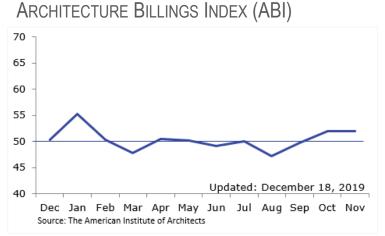
> The Labor Department also released its annual revisions to its household survey data, but there were no changes to monthly unemployment rates throughout the year. Source: CNBC, 1/10/2020

NIM

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KEY ECONOMIC INDICATORS



The Architecture Billings Index (ABI) registered positive growth for American architecture firms during the month of November 2019.

According to a newly published report from the American Institute of Architects (AIA), the ABI scored at 51.9 last month, signaling the second month of modest growth for the industry following a somewhat depressed summer.

Not only that, but three of the nation's four regional markets showed signs of positive growth, as well. In terms of the regional breakdown, the Midwest (51.1), West (51.3), and South (54.5) regions all saw increased design activity last month, while the Northeast (47.5) saw a drop in design activity. The West and South regions have shown growth consistently over the year, with the Midwest area waffling back and forth between slight gains and sharp contractions over the year. The Northeast sector has shown lagging growth all year long.

The **ARCHITECTURE BILLINGS INDEX (ABI)** is an economic indicator for nonresidential construction activity, with a lead time of approximately 9–12 months. The index is derived from AIA's Work-on-the-Boards survey, which has gathered data on shifts in billings from architectural firm leaders for over 20 years. An index score of 50 represents no change in firm billings from the previous month, a score above 50 indicates an increase in firm billings from the previous month, and a score below 50 indicates a decline in firm billings from the previous month. *Source: American Institute for AIA, 12/18/2019*

In the week ending on January 4, 2020, domestic raw steel production was 1,898,000 net tons while the capability utilization rate was 82.0 percent. Production was 1,861,000 net tons in the week ending January 4, 2019 while the capability utilization then was 79.4 percent. The current week production represents a 2.0 percent increase from the same period in the previous year. Production for the week ending January 4, 2020 is up 1.2 percent from the previous week ending December 28, 2019 when production was 1,876,000 net tons and the rate of capability utilization was 81.1 percent.

Adjusted year-to-date production through January 4, 2020 was 1,898,000 net tons, at a capability utilization rate of 82.0 percent. That is up 2.0 percent from the 1,861,000 net tons during the same period last year, when the capability utilization rate was 79.4 percent.

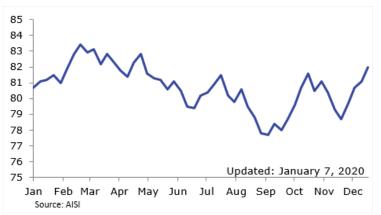
RAW STEEL PRODUCTION is a domestic report based on estimates from companies representing approximately 90% of the Industry's Raw Steel Capability as compiled by the American Iron and Steel Institute. *Source: AISI, 1/7/2020*



The December PMI® registered 47.2 percent, a decrease of 0.9 percentage point from the November reading of 48.1 percent. This is the PMI®'s lowest reading since June 2009, when it registered 46.3 percent. The New Orders Index registered 46.8 percent, a decrease of 0.4 percentage point from the November reading of 47.2 percent. The Production Index registered 43.2 percent, down 5.9 percentage points compared to the November reading of 49.1 percent. The Backlog of Orders Index registered 43.3 percent, up 0.3 percentage point compared to the November reading of 43 percent. The Employment Index registered 45.1 percent, a 1.5-percentage point decrease from the November reading of 46.6 percent. The Supplier Deliveries Index registered 54.6 percent, a 2.6-percentage point increase from the November reading of 52 percent. The Inventories Index registered 46.5 percent, an increase of 1 percentage point from the November reading of 45.5 percent. The Prices Index registered 51.7 percent, a 5-percentage point increase from the November reading of 46.7 percent. The New Export Orders Index registered 47.3 percent, a 0.6-percentage point decrease from the November reading of 47.9 percent. The Imports Index registered 48.8 percent, a 0.5-percentage point increase from the November reading of 48.3 percent.

THE PURCHASING MANAGERS INDEX® is based on a monthly survey sent to senior executives at more than 400 companies. A PMI above 50 represents an expansion when compared to the previous month. The further from 50, the greater the change. *Source: Institute for Supply Management, 1/3/2020*

RAW STEEL PRODUCTION



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INDUSTRY NEWS

IS THERE HOPE AFTER GLOOM FOR STEEL INDUSTRY? EDEL-WEISS BELIEVES IT DOES

Most brokerages are positive about the metal space and believe 2020 to be a good year for the sector. With signs of recovery in the US-China trade relations, the metal space has already started to gain momentum. The World Steel Association estimated global steel demand to grow at 1.7 percent in CY20E with a higher contribution of emerging and developing economies, excluding China.

Edelweiss's report suggested that as per CISA's forecast, in CY19, China's crude steel output will grow 7 percent YoY to 994mt— the highest-ever level— and steel consumption will grow 5 percent YoY. While demand has maintained momentum, China has put effective controls in place on additional steel production capacity. Hence, with recovery in demand and limited supply, steel prices have recovered from the trough in the recent past.

According to the World Steel Association, after a better-thanexpected CY19E, global steel demand will grow a mere 1.7 percent in CY20E with a higher contribution of emerging and developing economies, excluding China, said the report.

In fact globally, iron ore and coking coal prices have corrected more than 20 percent over the past 2 months, offering pure steel manufacturers the opportunity to garner higher profitability.

The firm noted, "Expect overall steel production to grow 6.5 percent in FY21. With an expectation of demand recovery and improvement in global steel prices, domestic hot-rolled coil (HRC) prices have started rising sharply - Rs 37,000/tonnes on average currently."

The report expected rising spreads to spur profitability. With an increase in domestic and international steel prices and a fall in raw material prices, initiate 'trading buy' on Tata Steel and JSW Steel with target prices of Rs 580 and Rs 333 respectively. Source: CNBC, January 3, 2020

STEELMAKERS FOLLOW NUCOR SHEET HIKE

ArcelorMittal USA and NLMK USA will raise flat-rolled steel prices effective immediately, the companies said in separate letters to customers on Wednesday January 8.

"This increase is applicable to all new orders and recent quotations that have not yet been accepted by ArcelorMittal or AM/NS Calvert entities. We reserve the right to modify any outstanding quotations," the steelmaker said in a letter to customers on Wednesday.

The HRC order books at ArcelorMittal USA and AM/NS Calvert facilities have closed for February, the company noted.

"This price increase is effective immediately for all new spot orders. Orders received and not yet confirmed are subject to this increase," NLMK wrote in its letter, crediting extending lead times and strong order placement for the price hike.

Earlier in the day, Nucor Corp took the lead in announcing a flat-rolled product price increase in the same amount.

Price increases announced by mills east of the Rocky Mountains were followed by both major West Coast flat-rolled steel suppliers.

USS-Posco Industries (UPI) said it would raise base prices for all sheet products effective immediately.

The move applies equally to hot-rolled pickled and oil, coldrolled and galvanized product, the company said in a letter to customers dated Wednesday January 8.

UPI - a joint venture between U.S. Steel and South Korean steelmaker Posco - converts hot band supplied by its parent companies into value-added products.

California Steel Industries (CSI) said that it, too, would raise prices effective immediately.

The price hike - which coincides with the opening of CSI's flatrolled order book for March - applies to hot-rolled, pickled-andoiled, cold-rolled and galvanized product, the company said in a letter to customers on Wednesday.

CSI - a joint venture between Brazilian miner Vale and Japanese steelmaker JFE - converts slab into hot-rolled, cold-rolled and galvanized flat-rolled steel, according to its website.

If all other mills follow, this will mark domestic mills' fifth attempt to raise flat-rolled pricing since late October, putting the cumulative increase at \$190 per ton. Source: AMM, January 8, 2020

PLATE PRICE UNCHANGED ON LIMITED ACTIVITY

Steel plate prices in the United States were unchanged during the week to Friday January 3 amid scarce market activity around the year-end holiday season.

With the New Year holiday falling in the middle of the week, most market participants were on vacation and little activity was reported to Fastmarkets.

The lack of activity kept most mills' lead times at four to five weeks, sources said, which has put pressure on mills to sell plate products at discounted prices.

"The mills are quoting up," one Midwest service center source said. "It's just a matter of if you have an order to place ... If you have an order to place, they'll still listen [to discounted prices].

Still, prices remain up overall after rising in the wake of a third mill increase - announced in early December 2019 - and sources expect that the plate market could improve this month after participants return to work following the holidays.

"With the combination of a return to business coming out of the holidays and people having a better focus [on their business], people will start to feel busy," a second Midwest service center source said.

Meanwhile, expectations that domestic ferrous scrap prices will rise in the January trade were further supporting the plate market.

Sources were unsure how demand will perform in the long term, however. While most agreed that demand will recover by the end of January, they questioned whether demand would continue to improve significantly.

And one East Coast distributor source said that a lack of infrastructure spending has been dragging the plate market down.

In the manufacturing sector, the Institute for Supply Management's (ISM) purchasing managers' index (PMI) dropped to 47.2% last month - its lowest since June 2009, the Tempe,

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Arizona-based group said on January 3. A PMI reading above 50% indicates that the manufacturing economy is generally expanding; a reading below 50% indicates that it is generally contracting.

2020 PREVIEW: FINISHED STEEL EYES '21 REVIVAL

The global finished steel market in 2020 is set to be weighed down by a continuation of last year's weaker end-consumption tion is predicted throughout the decade, but industrial activity in rates, but there are bright spots coming in the longer term, all those years is forecast to expand faster than this one, posi-Fastmarkets analysts forecast.

In some ways, 2019 looked very similar to the year before in the world's steel markets as momentum continued to slow from the supercharged year of 2017.

From an apparent consumption viewpoint, it was clearly another tale of contrasts between the strong and the weak. After 11 months of provisional data, we estimate that Chinese steel demand, on an apparent basis, rose by 6.9% year on year - or 52 million tonnes - to yet another new record level of 806.3 million tonnes. This was actually a slowdown from the year before when demand increased by 8% - or 55.8 million tonnes - over the same period.

In the rest of the world, meanwhile, apparent consumption continued to disappoint. After rising by just 1.2% or 8.9 million Taking the example of the Chinese hot-rolled coil export price, tonnes in the first 11 months of 2018 to 786.4 million tonnes, last year turned out to be a rare steel recession outside of China. We estimate that apparent consumption fell by 1.4% year on year to 775.7 million tonnes, a decline of 10.7 million tonnes. For the year as a whole, we predict global steel consumption will have risen by 2.6% last year to a record 1.75 billion tonnes, an increase of 43.8 million tonnes.

While tonnage changes last year were very much in line with the average recorded by the World Steel Association (Worldsteel) over the past decade, the growth rate we predict is well below average. Apparent steel consumption rose by 3.3% per year in the 10 previous years (2008-2018), outpacing the world's industrial activity, which according to Oxford Economics' data rose merely 2.8% per year at the same time.

Steel demand drivers

If in the past decade, global industry was propelled by steelcontaining goods, what does the future bring? Does last year's rapid slowdown and first steel recession since 2015 (outside of China) provide a leading indicator?

To help answer these questions, we need to look specifically at what drives steel demand. According to Worldsteel, there are seven key end-user industries on which to base a steel outlook. The first, accounting for 51% of usage, is construction, by far the significant user of steel. Mechanical engineering (such as cranes) - at 15% - leads the remaining sectors, which include automotive production (12%); metal goods, such as tools (11%); other transport, such as ships (5%); electrical equipment (generators) and domestic appliances - both 3%.

When we aggregate the economic value of these seven sectors into their shares associated with steel consumption, it is hardly surprising that over time, steel consumption does tend to track the trend in the end-use indicator, which we call steel-weighted industrial production (SWIP). Unsurprisingly, the SWIP slowed down dramatically in 2019, from a growth rate of 2.8% in 2018 to just 1.0% last year. That was the slowest rate of growth since the 2009 financial collapse and less than half the rate achieved

in 2015, the last time the steel market contracted.

Looking ahead, demand momentum is predicted to accelerate. This year, the global SWIP will more than double to 2.1%, although that is the same rate recorded in 2015 and is still well below average. Momentum should continue to build, however; the SWIP is forecast to accelerate to an above-average 3.0% in 2021 before peaking at 3.1% in 2022. Thereafter, a deceleratively supporting steel use.

Although the outlook improves dramatically from next year, we believe momentum in steel this year will slow for a third straight year, weighed down by a more acute deceleration in China. This, in our opinion, will offset the more positive momentum expected in the rest of the world, notably in countries such as Turkey, which are forecast to benefit from a revival in construction output after a two-year depression.

Overall, we predict apparent steel consumption will rise by just 1.9% this year, down from 2.6% in 2019. Traditionally, slower growth in steel consumption has a negative impact on steel prices (see chart) and we believe this trend will continue in 2020.

Fastmarkets recorded a contraction of \$75 per tonne fob last year to a level below \$500 per tonne on average for the first time since 2016. In line with steel demand changes, in China and for the world at large, Chinese and global steel prices began to revive in 2016 and rose spectacularly in 2017, the year steel demand rose more than 7% - more than twice the historical average.

Given the demand-pull for steel and the fact that global steelmaking capacity was being curtailed at the same time, primarily in China, our spot assessments rose by more than \$130 per tonne fob in 2017. Higher prices supported bumper profits at Chinese steelmakers and further gains were recorded in 2018. But demand momentum had already begun to contract by then, so prices began to fall, especially in the second half.

Short-term view

Although it is rare for prices to fall over consecutive years - prior to last year, the previous occasion was four years ago - we believe that a further slowdown in steel consumption, albeit not so pronounced as last year, will put more pressure on prices. We forecast Chinese export prices will fall by another 4% roughly \$20 per tonne fob - this year, due to mills seeking to become more competitive overseas and benefit from a modest revival in the rest of the world's consumption.

Although the big steel-consuming markets are seasonally depressed by winter weather, we anticipate purchasing orders for the stronger spring will materialize in the short term, pulling steel prices higher. This upward trend had already begun before the end of last year in key import markets such as the United States, where prices fell far harder than elsewhere (by more than 25% and \$200 per net ton) in 2019, but we expect this trend to spread elsewhere. After rallying into March, we forecast that prices will correct into the second half of the year. Yet with 2021 forecast to be a much stronger year than in the recent past (see chart), we would not be surprised if prices start to revive again later this year in preparation. Source: AMM, January 6, 2020