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WSD's steel experience, steel database and availability of steel statistics are the principles for performing steel forecasts, studies and analysis for international clients. WSD seeks to understand how the "pricing power" of steel companies the world over will be impacted by changes in the steel industry's structure. The views and opinions expressed in this article are solely those of World Steel Dynamics and not necessarily those of AIST.



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WSD Steel-Consuming Index: 2008 and 2021

Lessening steel intensity

In Table 1, WSD has compared the results of its IDX (weighted index of activity for 15 U.S. steel-consuming industries or sectors) for selected months in 2008–2009 and 2020–2021. The figures, of course, come from different times in the steel cycle. The first half of 2008 was an "end-of-cycle" period, with major economic problems already on the horizon. The current year, in contrast, is probably an "early-in-cycle" time in which the global economy is likely to be booming well in 2022.

Each of the periods included: (a) a price run-up of hot-rolled band (HRB) prices on the world market, and in selected home markets, to "extreme" steel shortage levels; (b) an episode of sharply declining activity — in 2008–2009 due to the global financial crisis sparked in part by the Lehman Bros. bankruptcy in September 2008; and (c) in 2020–2021, a sizable fall of economic activity in the second quarter of 2020 due to the impact of the devastating COVID-19 pandemic.

Regarding the specific monthly figures for July 2021 and January 2008:

- Over the 13-year time frame, IDX was up 3.1%. This gain was composed of a 22.7% rise for the short-lead-time capital goods (CES) component of the index; a 14.4% decline in the long-lead-times capital goods (CEL) component (including a 20.2% fall in non-residential construction activity), and a 6.4% drop in the consumer goods (CDIDX) component. (Note: Non-residential construction activity has a 23% weighting in the total index.)
- Monthly apparent steel demand (ASC) was 9.8 million tons in May 2021 versus 10.9 million tons in January 2008 — for a drop of 10.1%. This

decline occurred despite the moderate 3.1% rise in the IDX and a 23.3% rise in real U.S. GDP. Hence, ASC/IDX, which is a measure of steel intensity, was only 0.093 million tons per point of IDX in May 2021 versus 0.106 million metric tons per point of IDX in January 2008.

There was a fairly similar HRB export price run-up in the first halves of 2008 and 2021.

- In January 2008, the HRB export price, FOB the port of export, was US\$653/metric ton, before rising to US\$1,113/metric ton in July 2008; and then, falling back to US\$406/metric ton in March 2009. The figures for the U.S. HRB price, ex-works, were US\$659, US\$1,283 and US\$515 per metric ton, respectively.
- In October 2020, the HRB export price, FOB the port of export, was US\$524/metric ton, before rising to US\$1,100 in May 2021 (and declining in August 2021 to about US\$970/metric ton). For the U.S., the prices were US\$727/metric ton in October 2020, US\$1,680/metric ton in May 2021, and still rising at US\$2,100/metric ton in August 2021, respectively.

Regarding the sharp temporary decline in IDX in these periods:

- In March 2009, IDX at 78.0 was down 18.8% from 97.2 in July 2008.
- In April 2020, IDX at 77.2 was down 27.7% from 105.3 in January 2020. This decline was more severe and occurred over a shorter period of time.

Table 1

U.S. Components of IDX (Sources: WSD estimates, World Steel Association, American Iron and Steel Institute and SteelBenchmarker™)

Indicator	Jan '08	Jul '08	Mar '09	Jan '20	Apr '20	Oct '20	Mar '21	May '21	Jul '21	% chg Jul '21/Jan '08
CES: Short-lead-time capital goods										
Oil and gas well drilling	3.8	4.0	2.5	1.6	1.2	0.7	1.0	1.1	1.2	(69.6)
Railroad rail and miscellaneous	3.7	3.5	2.6	4.4	4.3	5.3	5.6	5.5	5.5	47.1
Business equipment	6.7	6.6	5.7	8.4	5.8	8.0	8.3	8.3	8.5	27.0
Trucks (not seas. adj.)	4.4	3.5	2.9	6.0	0.5	6.5	7.1	5.2	5.2	19.2
Fabricated metals	13.2	12.8	10.6	15.3	13.2	14.3	14.8	14.7	14.6	10.8
Non-electrical machinery	12.4	10.9	7.3	16.8	14.8	17.2	19.1	19.2	19.3	55.3
Total	44.2	41.4	31.6	52.5	39.7	52.0	56.0	53.9	54.3	22.7
CEL: Long-lead-time capital goods										
Ships and boats construction	1.1	1.0	0.8	1.0	0.8	1.0	1.0	1.0	0.9	(19.3)
Electrical equipment	6.1	6.1	5.3	6.8	6.3	6.3	6.7	6.8	6.8	11.3
Non-res. construction (not seas. adj.)	26.1	27.1	23.6	20.3	21.5	22.1	18.9	19.4	20.9	(20.2)
Total	33.4	34.2	29.7	28.1	28.6	29.4	26.6	27.1	28.6	(14.4)
CDIDX: Consumer goods										
Residential housing (not seas. adj.)	1.6	1.7	1.1	1.5	1.8	2.2	2.1	2.2	2.5	59.5
Household appliance	3.8	3.7	3.2	3.9	3.4	4.6	4.5	4.4	4.4	15.9
Automobiles (not seas. adj.)	13.6	9.2	7.5	14.4	0.1	15.4	15.0	12.1	10.8	(20.4)
Total	18.9	14.7	11.8	19.8	5.3	22.2	21.7	18.7	17.7	(6.4)
MIDX: Miscellaneous industries										
Defense and space equipment	1.2	1.2	1.2	1.4	1.3	1.5	1.6	1.6	1.6	35.9
Farm equipment	2.1	2.2	1.9	2.1	1.0	1.9	2.1	2.1	2.1	2.1
Metal cans	2.8	3.6	1.8	1.4	1.3	1.5	1.6	1.6	1.5	(47.6)
Total	6.1	6.9	4.9	4.9	3.6	4.9	5.2	5.3	5.2	(14.1)
Total	102.6	97.2	77.9	105.3	77.2	108.5	109.5	104.9	105.8	3.1
Monthly apparent steel consumption (ASC)	10.9	10.8	4.7	11.0	8.0	7.6	9.6	9.8	—	(10.1)
ASC/IDX ratio	0.106	0.111	0.060	0.105	0.104	0.070	0.088	0.093	—	(12.1)
World export HRB price (in USD)	\$653	\$1,113	\$406	\$505	\$390	\$524	\$838	\$1,100	\$980	50.1
U.S. HRB price (in USD)	\$659	\$1,203	\$515	\$659	\$543	\$727	\$1,417	\$1,680	\$2,060	212.6
U.S. real GDP (billions annualized)	15.702 Q1-08	15.709 Q3-08	15.187 Q1-09	18.951 Q1-20	17.258 Q2-20	18.560 Q4-20	19.055 Q1-21	19.358 Q2-21	19.358 Q2-21	—

Looking ahead to the remainder of 2021 and 2022, if interest and inflation rates stay low and the new Delta variant of COVID-19 impact is largely contained, WSD thinks that global capital spending and construction

spending may rise substantially — along with recovering automotive production. Hence, 2022 could be a rare year in which ASC/IDX has some increase.

This report includes forward-looking statements that are based on current expectations about future events and are subject to uncertainties and factors relating to operations and the business environment, all of which are difficult to predict. Although WSD believes that the expectations reflected in its forward-looking statements are reasonable, they can be affected by inaccurate assumptions made or by known or unknown risks and uncertainties, including, among other things, changes in prices, shifts in demand, variations in supply, movements in international currency, developments in technology, actions by governments and/or other factors. ◆