



is a leading steel information service in Englewood Cliffs, N.J., USA

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.



## Authors

**Peter Marcus** (left)  
Managing Partner,  
World Steel Dynamics  
pmarcus@worldsteeldynamics.com  
+1.201.503.0902

**John Villa** (right)  
Senior Research and Operations  
Director, World Steel Dynamics  
jvilla@worldsteeldynamics.com  
+1.201.503.0911

## Steel Industry Entering a New Era of Improved Profitability

### "Game Changers" May Create One of the Best Times for Steel Mills Since World War II

An array of "game changers" seems to be working in the global steel mills' favor on both a near- and long-term basis. For example: (a) Chinese steel production will likely be constrained for years to come as the government seeks to curb CO<sub>2</sub> emissions — hence, we no longer look for surging Chinese steel exports when there's an oversupply of steel in the country; (b) non-Chinese steel production will also be restrained given the huge mills' significant capital expense and rise in operating costs if they are to sharply curb CO<sub>2</sub> emissions; (c) a number of "legacy" older steel mills are no longer viable on a long-term basis; (d) the steel industry's current "Age of Protectionism," which benefits home market prices, is here to stay because government policymakers in a number of countries are not in favor of good profitability for their steel mills (which is essential for their survival); (e) many more steel buyers are now "playing defense" because they are apprehensive about sufficient steel production in the years ahead; (f) evidence is promising that the global economy will likely expand at a good rate at least well into 2022 — unless there's a surge in interest rates — which is positive for steel given that it's a "late in cycle" industry; (g) we no longer look for surging Chinese steel exports when there's oversupply for steel in the country; and (h) a variety of steel mills in the years ahead will grow stronger via M&A activity.

Given these positives, and, especially, its judgment that the industry has just entered a new "Era of Steel Production Constraint," WSD is more positive on the longer-term profit outlook for many steel

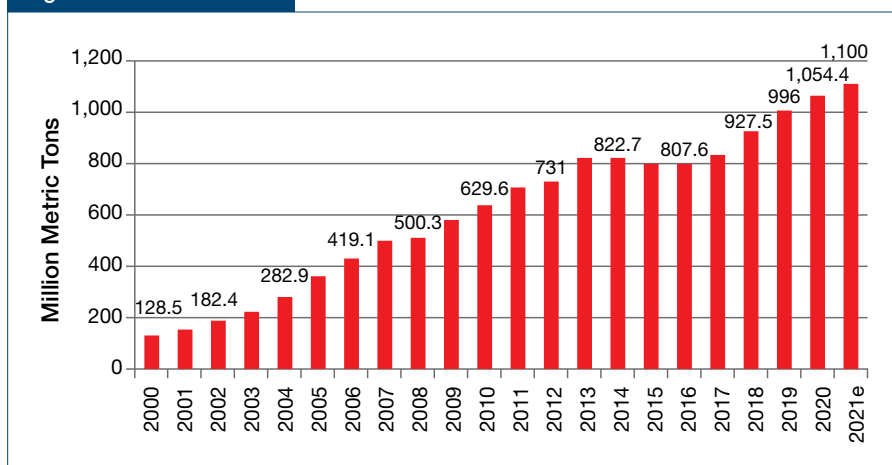
companies than at any time in the past. With respect to prior times:

- From the late 1940s through 1959, the global industry was in a favorable profit situation, when global steel production rose about 9% per annum. During much of this period, steel was in short supply. This era ended in 1959 with the 119-day industry-wide steel strike in the U.S., which provided many foreign mills with a new position in the U.S. steel market. During these years, based on the Bretton Woods Agreement in 1944, which was attended by most countries apart from those at war with the United States, the U.S. agreed to be fully open to merchandise produced abroad as long as it remained, in effect, the enforcer of the international finance system.
- During the 1960s to the mid-1970s, the Japanese steel mills became a serious threat to steelmakers elsewhere as they: (a) added many steel plants with the most modern equipment; (b) benefited from low prices for iron ore and coking coal on the world market; (c) enjoyed a highly positive government policy toward the industry (Japan Inc.); and (d) benefited from a lengthy period in which the Japanese yen was fixed in value versus the U.S. dollar — and, as a result, the country's trade surpluses piled up.
- During the period from the mid-1970s to the late 1990s, underlying steel demand

grew only slightly as the Soviet Union collapsed (including huge downsizing of its steel industry), global steel trade soared, and sharply higher obsolete steel scrap generation benefited electric arc furnace (EAF)-based steel-makers that were using new technologies and cheap steel scrap prices to take markets away from the integrated mills. An important event during this period was the Plaza Accord meeting at the Plaza Hotel in 1985 among G-5 nations in which the Japanese negotiators agreed for their currency to appreciate versus the U.S. dollar (which happened and, within about two years, the huge Japanese trade surpluses were largely eliminated).

- From 2000 to 2020, there was: (a) massive Chinese economic and steel production growth (Fig. 1); (b) huge expansion of global steel trade; (c) expanding steel industry protectionism; and

Figure 1



China annual steel production (2000–2021). Sources: World Steel Association, SteelHome and WSD estimates.

(d) declining world steel export prices when Chinese steel mill exports were surging. During these years, some of the best performing mills included: (a) U.S. EAF-based mini-sheet mills making use of revolutionary thin-slab casters; and (b) leading Russian mills with their own iron ore and coking coal mines.

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. ◆

## Did You Know?

### Danieli Cast-Roll Line Exceeds Rated Capacity

A Danieli-built cast-roll mill in China has reached a new operational milestone, producing nearly 190,000 metric tons per month and running at 109% of design capacity.

In a statement, Danieli said its QSP-DUE<sup>®</sup> mill at Shougang Jingtang's facility in Tangshan city, Hebei province, is unique among hot strip mills because it can produce an unlimited range of steel grades in coil-to-coil, semi-endless and endless production modes.

"The QSP-DUE technology (can operate in any of those modes based on) the most suitable process in accordance with the high-quality requirement of various steel grades and strip dimensions, optimizing at the same time yield, energy consumption and OpEx.

This is something completely new, even compared with the latest-generation plants limited to pure endless capability," Danieli said in a statement.

Danieli said the equipment is capable of casting up to 37 heats in 24 hours, equivalent to about 7,800 metric tons, or a throughput rate of 6.4 t/minute, a world-record performance for thin-slab casting.