20 Strategic Insights From WSD



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.



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Global steel trade: 42% of non-Chinese output

Global steel trade, including semifinished, rose in 2017 to an estimated 448 million metric tons from 361 million metric tons in 2005 — for a compounded growth rate of 1.8% per annum. During this period, trade in finished steel products rose 2.5% per annum to 396 million metric tons, while trade of semi-finished steels fell 1.8% per annum to 52 million metric tons (Table 1).

In 2017, global exports of hotrolled sheet were about 94 million metric tons, which was well above the exports of 48 million metric tons each for cold-rolled sheet and galvanized sheet, and 38 million metric tons for pipe and tube.

Given steel production in 2017 of 1.71 billion metric tons and a yield to finished steel products of 89.5%, finished steel product output was 1.53 billion metric tons. Trade in finished steel products at 397 million metric tons amounted to 26.0% of production. When subtracting China's exports last year of 75 million metric tons and its steel production of 854 million metric tons (Table 2), non-Chinese steel exports of 322 million metric tons amounted to 42.0% of non-Chinese steel product output of 766 million metric tons.

Given the importance of the steel export business, no wonder it's a major event when the world export price collapses. In the past, when this has happened, the mills have sought to consolidate as a means to recapture "pricing power." Nowadays, the consolidation strategy no longer works because there are too many players. But, the mills have found a better solution — it's a new "Age of Protectionism" created by the avalanche of steel trade suits since 2016 filed against the Chinese steel mills.

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.

| Table 1 | | | | | | | | | | | | | |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Global Steel Trade Exports World Total (thousand metric tons). Source: WSD estimates. | | | | | | | | | | | | | |
| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017e |
| Semi-finished | 64,827 | 66,116 | 66,598 | 65,728 | 52,489 | 58,887 | 57,195 | 58,763 | 53,850 | 52,627 | 50,229 | 49,465 | 51,877 |
| Wire rod and wire | 27,947 | 31,108 | 31,990 | 30,814 | 23,650 | 26,952 | 28,590 | 29,453 | 31,065 | 35,142 | 36,153 | 35,750 | 33,037 |
| Bars | | | | | | | | | | | | | |
| Merchant bar | 20,628 | 23,027 | 26,497 | 29,082 | 16,190 | 21,546 | 24,739 | 25,364 | 26,870 | 36,031 | 45,302 | 44,066 | 26,918 |
| Rebar | 18,822 | 23,044 | 25,473 | 27,491 | 23,284 | 20,714 | 22,581 | 25,105 | 26,184 | 24,883 | 25,624 | 26,220 | 21,474 |
| Total | 39,450 | 46,071 | 51,970 | 56,573 | 39,473 | 42,260 | 47,320 | 50,469 | 53,053 | 60,914 | 70,926 | 70,286 | 48,392 |
| Structurals | 16,654 | 19,789 | 25,103 | 22,500 | 14,476 | 17,200 | 19,405 | 20,102 | 20,057 | 20,963 | 20,303 | 20,122 | 20,554 |
| Total long products | 84,051 | 96,968 | 109,063 | 109,887 | 77,599 | 86,412 | 95,316 | 100,024 | 104,175 | 117,018 | 127,382 | 126,158 | 101,983 |
| Plate | | | | | | | | | | | | | |
| Heavy | 29,718 | 35,548 | 41,675 | 41,690 | 25,907 | 31,541 | 34,179 | 32,448 | 30,243 | 34,458 | 33,371 | 33,662 | 33,244 |
| Medium | 698 | 610 | 565 | 1,044 | 721 | 998 | 864 | 640 | 663 | 586 | 393 | 480 | 650 |
| Total | 30,416 | 36,157 | 42,240 | 42,734 | 26,628 | 32,539 | 35,043 | 33,088 | 30,905 | 35,044 | 33,765 | 34,142 | 33,894 |
| Sheet | Sheet | | | | | | | | | | | | |
| Hot rolled | 63,535 | 74,329 | 75,388 | 71,329 | 58,093 | 71,081 | 71,890 | 70,601 | 71,950 | 80,432 | 88,746 | 89,846 | 93,955 |
| Cold rolled | 39,690 | 43,616 | 41,411 | 40,002 | 33,028 | 40,641 | 42,248 | 40,754 | 41,726 | 46,171 | 45,063 | 43,270 | 48,075 |
| Tinplate | 5,669 | 5,732 | 6,016 | 5,830 | 5,004 | 6,195 | 5,899 | 5,837 | 5,764 | 6,261 | 6,237 | 6,760 | 6,753 |
| Galvanized | 27,603 | 32,805 | 34,216 | 32,327 | 24,849 | 34,470 | 36,524 | 36,356 | 37,214 | 40,861 | 42,368 | 44,738 | 48,281 |
| Other coated | 10,375 | 11,741 | 13,095 | 14,678 | 10,852 | 14,721 | 18,053 | 17,715 | 17,679 | 20,149 | 21,017 | 22,210 | 22,779 |
| Total | 146,872 | 168,223 | 170,126 | 164,165 | 131,826 | 167,108 | 174,614 | 171,263 | 174,333 | 193,874 | 203,431 | 206,824 | 219,843 |
| Total flat products | 177,288 | 204,380 | 212,366 | 206,899 | 158,455 | 199,647 | 209,657 | 204,351 | 205,239 | 228,919 | 237,196 | 240,966 | 253,737 |
| Railway material | 2,677 | 2,913 | 3,349 | 3,588 | 3,246 | 3,773 | 3,626 | 2,520 | 2,245 | 2,552 | 2,700 | 2,260 | 2,903 |
| Pipe and tube | 32,459 | 37,466 | 40,114 | 41,687 | 26,982 | 33,153 | 39,891 | 39,809 | 37,272 | 39,957 | 34,314 | 32,448 | 37,589 |
| Other | 19 | 21 | 16 | 19 | 13 | 29 | 46 | 92 | 98 | 98 | 64 | 60 | 65 |
| Total other products | 35,155 | 40,400 | 43,479 | 45,293 | 30,241 | 36,955 | 43,562 | 42,420 | 39,616 | 42,606 | 37,078 | 34,768 | 40,557 |
| Finished steel | 296,493 | 341,748 | 364,909 | 362,079 | 266,295 | 323,014 | 348,535 | 346,795 | 349,030 | 388,543 | 401,655 | 401,892 | 396,277 |
| Semi and finished | 361,320 | 407,864 | 431,507 | 427,806 | 318,784 | 381,901 | 405,730 | 405,558 | 402,880 | 441,170 | 451,885 | 451,357 | 448,154 |

Table 2

| China Steel Pro | duct Exp | orts (millio | on metric | tons). Sou | rce: Steel ho | ome and WSD estimates. | |
|-----------------|----------|--------------|-----------|------------|---------------|------------------------|--|
| | | | | | | | |

| | | | | | | 2017 | | 2018e | | | |
|------------------|-------|-------|-------|--------|--------|--------|---------|----------|--------|---------|----------|
| | | | | | | | Change | | | Change | |
| | 2010 | 2012 | 2014 | 2015 | 2016 | Export | by vol. | rate (%) | Export | by vol. | rate (%) |
| Bar and wire | 5.19 | 11.49 | 30.86 | 43.89 | 41.30 | 16.16 | (25.14) | (60.9) | 20.00 | 3.84 | 23.8 |
| Section | 1.93 | 3.35 | 4.60 | 5.24 | 5.01 | 3.23 | (1.78) | (35.5) | 3.00 | (0.23) | (7.1) |
| Flat products | 24.79 | 26.75 | 43.67 | 48.46 | 48.02 | 43.24 | (4.78) | (10.0) | 35.00 | (8.24) | (19.1) |
| Hot-rolled band | 9.23 | 6.31 | 13.31 | 15.70 | 15.80 | 13.91 | (1.89) | (12.0) | 10.00 | (3.91) | (28.1) |
| Cold-rolled coil | 3.15 | 3.93 | 6.29 | 6.19 | 4.70 | 5.11 | 0.41 | 8.7 | 4.80 | (0.31) | (6.1) |
| Galvanized | 3.58 | 4.99 | 7.57 | 8.94 | 9.78 | 9.34 | (0.44) | (4.5) | 9.00 | (0.34) | (3.6) |
| Others | 8.83 | 11.52 | 16.50 | 17.63 | 17.74 | 14.88 | (2.86) | (16.1) | 11.20 | (3.68) | (24.7) |
| Pipe and tube | 7.31 | 9.63 | 10.06 | 9.98 | 9.66 | 8.76 | (0.90) | (9.3) | 8.00 | (0.76) | (8.7) |
| Railway | 0.48 | 0.54 | 0.59 | 0.80 | 0.51 | 0.31 | (0.20) | (39.2) | 0.30 | (0.01) | (3.2) |
| Other | 2.75 | 3.97 | 1.00 | 4.02 | 3.98 | 3.90 | (0.08) | (2.0) | 3.70 | (0.20) | (5.1) |
| Total | 42.45 | 55.73 | 93.78 | 112.39 | 108.48 | 75.60 | (37.66) | (30.3) | 70.00 | (13.84) | (7.4) |