Death of the Zombie Steel Firms and Reduction of Steel Excess Capacity in China

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The health of the global steel industry has for some time been affected by excess capacity—the gap between capacity and production. As recently as 2015, China accounted for 50 percent of global excess capacity or 350 million metric tons. Much of this Chinese excess capacity was reportedly created by "zombie" companies, which are, almost exclusively, indebted state-owned enterprises ("SOE") relying on creditors as a source of life support. In recent years, the Chinese government has used different policy tools in an effort to close many of these firms—by allowing them to go bankrupt or merge with larger enterprises—to support prices and profits as well as reduce exports. This EBOT provides an overview of China's steel excess capacity origins, reforms and its outcomes, in addition to an industry outlook.

Excess capacity in the steel industry tends to depress prices by encouraging firms to produce more than the market demands. Such firms may export excess product at lower prices, placing competitive pressure on steel firms worldwide, which can lead to financial losses and ultimately the cessation of operations. Additionally, low capacity utilization leads to higher per unit production costs, thus affecting profitability.

According to *Industry Today*, Chinese excess capacity has been facilitated by Chinese government (national and provincial) involvement in its steel industry through grants, preferential loans, debt-for-equity swaps, and tax refunds as well as various forms of indirect support to Chinese SOEs. A leading factor contributing to Chinese steel excess capacity has been easy credit extension, via government guarantees or through state-owned banks. The combination of SOE firms receiving credit from state-owned banks is a tough combination to beat and distorts international competition. Readily available credit incentivized firms to produce excess product and sell at lower prices to create a cash flow. However, the cash flow was often only enough to cover expenses and to service the firms' debts, but never to effectively reduce these debts. These steel firms were labeled as "zombies" because they depended on continuing credit lifelines to maintain operations given that many otherwise would have recorded losses. In 2016, Renmin University estimated that 51.4 percent of the steel industry in China consisted of zombie companies.

In December 2015, China initiated its Supply-Side Structural Reform (SSSR) program to steer the Chinese economy away from a stimulus-based system to one that is market-based. One of the goals of the reform was to improve the supply-demand structure by cutting excess capacity, destocking, deleveraging, and reducing costs. Companies would focus on high quality and efficiency to improve profitability and reduce costs. For the steel industry, this meant shutting down outdated plants and bringing online new/efficient mills; issuing stricter rules for building new production facilities, and facilitation of mergers and acquisitions. China vowed to reduce steel capacity by 150 million tons by 2020. In 2016, the central government instructed state-owned banks and regulators to stop lending to "zombie" SOEs.

As lending ceased, cash flows of "zombie" firms deteriorated and so did their ability to service debts. This forced many to restructure or default; effectively "killing" them by ceasing their operations or merging them with larger SOEs. Initial results were identified in May 2018 with reports that 120 million tons of excess capacity had already been cut (figure 1). Later reports indicated the goal of 150 million tons was reached at the end of 2018. Chinese exports as a share of production have fallen, and the reduction in excess capacity raised the Chinese industry's capacity utilization rate (figure 2). Analysts note that 80 percent capacity utilization is normally necessary for long-term profitability in the steel industry. With cuts in Chinese capacity and global demand for steel climbing, margins increased and profits of the remaining Chinese producers have recovered (figure 3). In 2015 (before SSSR), Chinese steel producers suffered a

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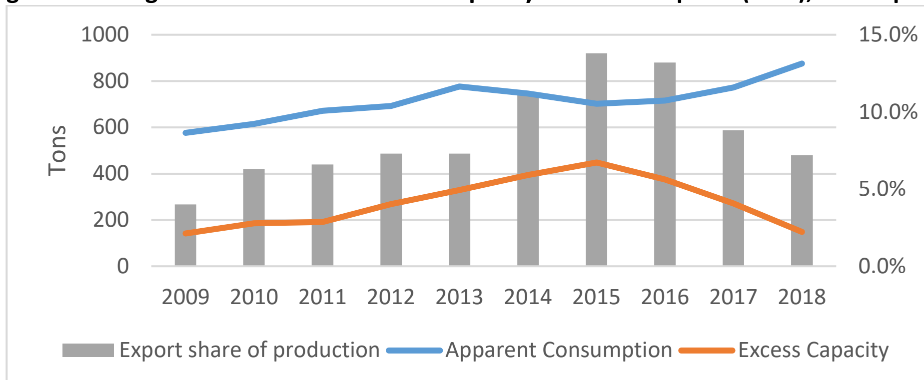
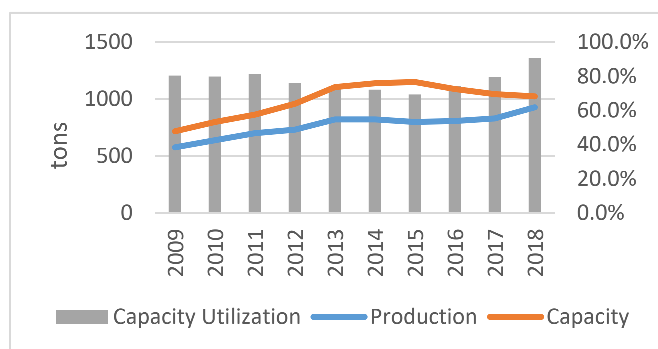
reported $10 billion loss, compared to 2018 when producers experienced a reported $45.3 billion profit on an annualized basis.

Figure 1: Changes in Chinese steel excess capacity and consumption (tons), and exports (percentage)



Source: OECD Steelmaking capacity database, 2000-2018; Trade.gov; Global Steel Trade Monitor.

Figure 2: China's steel production vs. production capacity



Note: Only capacity utilization expressed as percent.
Source: Trade.gov, Global Steel Trade Monitor, OECD.Stat.

Figure 3: Chinese steel sector profit margins

Source: Reserve Bank of Australia, rba.gov.au
Data may contain Chinese sources.

The outlook for the overall Chinese steel industry is murky. Even with cuts in the capacity associated with zombie firms, China's overall steel production—928 million tons in 2018—grew by 6.6 percent relative to the year before. Additionally, according to the China Iron and Steel Association, steel consumption in China is expected to remain constant in 2019 and decline to around 750-800 million tons from 2020 to 2035. High production levels coupled with lower future domestic consumption would pave the way to a rise in exports, and some of this product could find its way to the United States. Moreover, further significant capacity reductions in China may be difficult to sustain.

Sources: Market Realist, *"Why steel investors are mindful of capacity utilization rates."* (accessed September 23, 2019); China.org.cn: "*Crude steel production capacity in Hebei, Tianjin to be capped*," (accessed March 19, 2019); Reuters: "*Debts rise at China's big steel mills, consumption falls*," (accessed March 19, 2019); Argus Media: "*China looks to 20mn t/yr steel capacity cuts in 2019*," (accessed March 12, 2019); International Business Times, *"China's struggling steel producers made record $10b loss in 2015, industry chief predicts more problems ahead."* (accessed September 23, 2019); XINHUANET, *"Chinese steel producers' profits surge as capacity slashed."* (accessed September 23, 2019); He Fan, Renmin University, East Asia Forum, "*Dealing with zombie enterprises in China*," (accessed September 23, 2019); Industry Today, *"State-sponsored overcapacity: the looming crisis in the global steel industry,"* (accessed September 23, 2019); OECD, Steelmaking overcapacity, (accessed March 19, 2019); OECD.Stat (accessed March 19, 2019); Industry Today, *"State-sponsored overcapacity: the looming crisis in the global steel industry,"* (accessed September 23, 2019).

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