When steel historians look back on the years between 2017 and 2022, they very well might recognize the time as a golden era in mill investment, one that brought about the first generation of Industry 4.0-era facilities.

Or, they may see it as a strategic miscalculation, one in which new capacity wound up outpacing demand, sending the industry into a tailspin.

Which will be the more likely scenario of the two? Steel Manufacturers Association (SMA) president Philip K. Bell argues that it will be the former. As he explained to the audience at the 15th annual S&P Global Platts Steel Markets North America conference, the industry’s spate of investment is borne out of a need for mills to keep up with the demands of 21st-century manufacturing. They are not, as he said, building merely to chase tons.

“No longer is it a good management decision to increase tonnage for the sake of productivity or capacity utilization. Increasingly, steel mills have to be able to adjust production to ensure that very unique and highly specialized customer requirements are met,” he said.

“21st-century steelmaking has to become more flexible. It has to become more agile.”

The two-day conference, held 14–15 March 2019 in Chicago, Ill., USA, took a look at a number of topics, but the industry’s expansionary moves were among those at the top of the list, with some questioning the rationale for new capacity in a world that already has too much.

Indeed, the Organisation for Economic Co-operation and Development has forecast that global steel capacity could increase between 4% and 5% over the next few years. That’s a problem, it says, as the world already has the ability to make roughly 426 million metric tons more than it needs.

And to be sure, the U.S. is investing heavily. By SMA’s tally, the industry has announced more than US$10 billion worth of projects since the beginning of 2017.

However, Bell said the investments are a response to the needs of the modern-day market.

He said that steelmakers are coming to find they will have to incorporate higher degrees of customization into their processes, make smaller lot sizes and produce more higher-value, niche products. They’ll also have to be able to provide greater product documentation along the way.

And the industry will be stronger for it, he said.

“Modernization will result in better plant optimization, lower energy consumption and overall safer workplaces.”

Nevertheless, the fact remains: there will be more capacity coming on-line. Bank of America Merrill Lynch analyst Timna Tanners estimates that the announcements will equate to a 20% increase in capacity through restarts, brownfield expansions and greenfield projects. Tanners told attendees that this could pose a problem for the steel market that likely has seen the peak of this cycle. Therefore, the risk is that new capacity creates a glut of steel for which there are no buyers, driving down prices.

“When prices fall, there needs to be a day of reckoning for the higher cost capacity,” she said, pointing out that some of the mills in the U.S. are a century old. Given that, she said she believes that some old blast furnace capacity will be shuttered and will accelerate market share toward electric arc furnaces.

EAFs currently account for slightly more than two-thirds of U.S. crude steel production.

Tanners, who calls her scenario “Steel-Mageddon,” said she believes very good steel prices drove the investment decisions as producers scrambled to get a piece of the action.

Bell, however, said it was sound business decision-making and favorable policies that enabled the investments. He also said projects take months, sometimes years, of research, negotiations with municipalities and equipment vendors, and planning around recruitment and staffing.

“These are things that are not entered into lightly,” he said.

Bell said that in conversations with SMA member companies, executives are telling him that tax cuts and regulatory certainty has prompted the investments. And in addition, interest rates are still relatively low and overall manufacturing optimism is high.

Some of the investments are simply the result of steelmakers with good business acumen making sound decisions, he said.