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Truck Production Index



The PSR-TPI measures truck production globally and across six regions: North America, China, Europe, South America, Japan & Korea and emerging markets. Data comes from OE Link™, the proprietary database maintained by Power Systems Research.

First Quarter 2022

Power Systems Research Truck Production Index (PSR-TPI) falls 4.4%

ST. PAUL, MN — The year-over-year (Q1 2021 to Q1 2022) Power Systems Research Truck Production Index (PSR-TPI) dropped 114 to 109, or 4.4%. For the three-month period ended March 31, 2022, Q1 2022, the TPI decreased 9.2%, declining from 120 to 109.

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All Regions. Medium and heavy commercial vehicle production will be mixed this year due to a variety of issues. In China, truck and bus overcapacity will hinder demand while the Russian-Ukraine war will significantly impact demand and production in Eastern Europe. The other regions will also experience reduced production due to a slowing global economy and continued supply chain problems.

Global Index. After strong results in 2021, PSR expects global production for MHCV's to decline by 7.4% this year primarily driven by supply chain issues, the Russian-

Ukraine war, a slowing global economy and significant overcapacity in the Chinese truck and bus segment.

North America. Medium and heavy commercial vehicle production is expected to increase by 10% this year over 2021 as the OEMs continue to struggle with the supply chain disruption that is expected to continue through at least the end of the year. However, the threat of an economic slowdown later this year is greatly increasing primarily due to significantly higher fuel prices and overall inflation. While inflation has been increasing for well over a year, the Russian invasion of Ukraine has significantly exasperated this problem.

Europe. Medium and heavy truck production increased by 17.4% last year over 2020. While MHCV production is expected to further improve this year, production in Eastern Europe is expected to decline in many countries primarily due to the Russian invasion of Ukraine. The Russian OEMs will continue to produce vehicles periodically throughout the year but will be hampered due to lower demand and low/inconsistent production rates caused by significant supply chain constraints. Eastern European countries such as Kazakhstan, Lithuania and

TPI authors



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Uzbekistan will also see a production decline this year due to, in part, reduced truck kit assemblies coming from Russia. Ukrainian truck production has likely ceased through at least the remainder of the year.

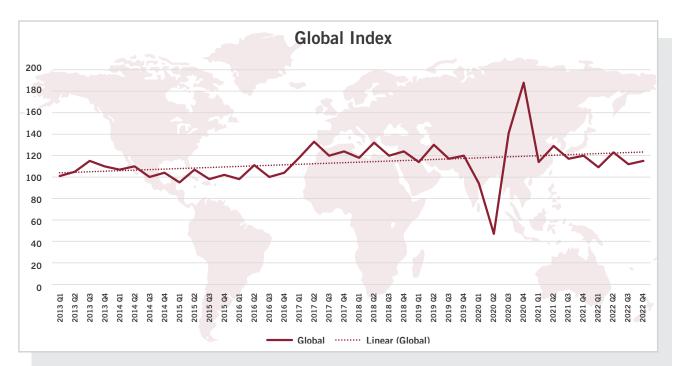
Greater China. Demand for medium and heavy commercial trucks are expected to decline by 23% this year as the truck market is at overcapacity due to a slowdown in economic activity along with high levels of truck adoption during the past few years. The virus also continues to hamper the economy and many regions are still experiencing periodic lockdowns which puts further pressure on the global supply chain.

South Asia. After a very strong recovery in medium and heavy truck demand, Indian production is expected to increase by 10% this year over 2021. Slight growth is also expected next year before declining in 2024 partially due to it being an election year. In India, the focus is moving toward more infrastructure spending which is good for the vocational market. However, increasing use of rail freight, worker shortages and increasing commodity prices will likely slow truck demand during the next few years. All other South Asian countries are expected to experience slight to moderate demand growth this year.

South America. In Brazil, which is the largest producer of MHV in South America, the production in 2021 was 62% higher than in 2020, which means a volume even higher than 2019. For 2022, we are predicting growth of 7.5% mainly due to prebuy before introduction of Euro VI in 2023. The risks are the interest rates in H2 2022, as well some impact in agriculture due to lack of fertilizers. The new forecast is now close to 200k units by 2026. Emission regulations Proconve 8 or P8, equivalent to Euro VI, is required by Jan 2023. The legislation considers MHV to be all CV vehicles above 3.8 tons. The biodiesel content will be B10 until end of 2023.

Japan/Korea. Medium and heavy commercial vehicle production in Japan and South Korea is expected to increase by 6% this year over 2021. Automotive production Japan is started to see improvement toward the at the end of last year. While this is good news, the supply chain issues have yet to be resolved and the Omicron COVID variant will likely pose challenges throughout the year.

The next update of the Power Systems Research TPI will be in June 2022 and will reflect changes in the TPI during Q2 2022. **PSR**

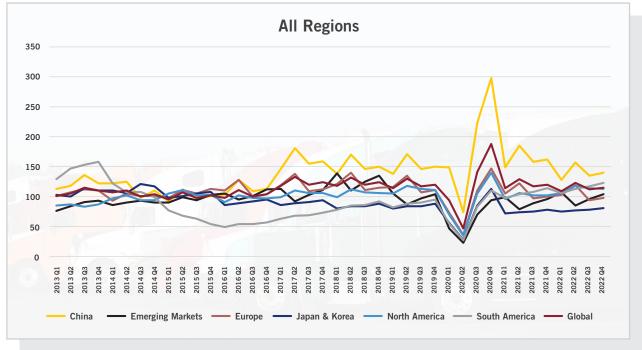


After strong results in 2021, PSR expects global production for MHCV's to decline by 7.4% this year primarily driven by supply chain issues, the Russian-Ukraine war, a slowing global economy and significant overcapacity in the Chinese truck and bus segment.



Power Systems Research Global Truck Production Index

(PSR-TPI) (Class 3-8 Trucks & Bus Chassis)



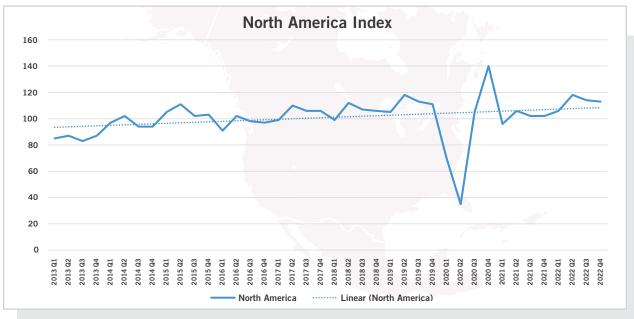
Medium and heavy commercial vehicle production will be mixed this year due to a variety of issues. In China, truck and bus overcapacity will hinder demand while the Russian-Ukraine war will significantly impact demand and production in Eastern Europe. The other regions will also experience reduced production due to a slowing global economy and continued supply chain problems.



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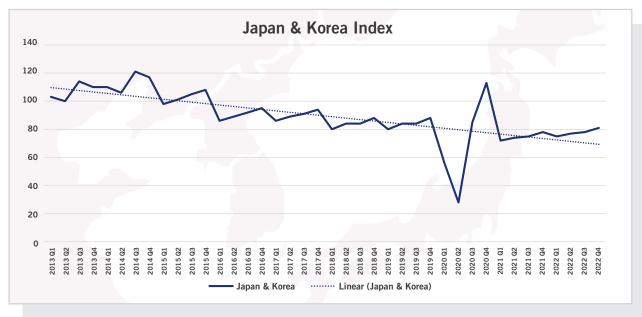
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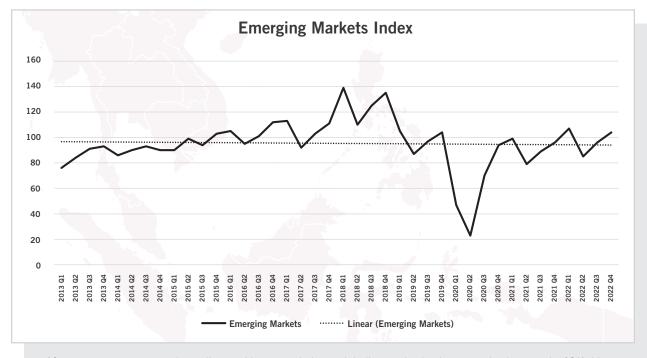
Medium and heavy truck production increased by 17.4% last year over 2020. While MHCV production is expected to further improve this year, production in Eastern Europe is expected to decline in many countries primarily due to the Russian invasion of Ukraine. The Russian OEMs will continue to produce vehicles periodically throughout the year but will be hampered due to lower demand and low/inconsistent production rates due to significant supply chain constraints. Eastern European countries such as Kazakhstan, Lithuania and Uzbekistan will also see a production decline this year due to, in part, reduced truck kit assemblies coming from Russia. Ukrainian truck production has likely ceased through at least the remainder of the year.



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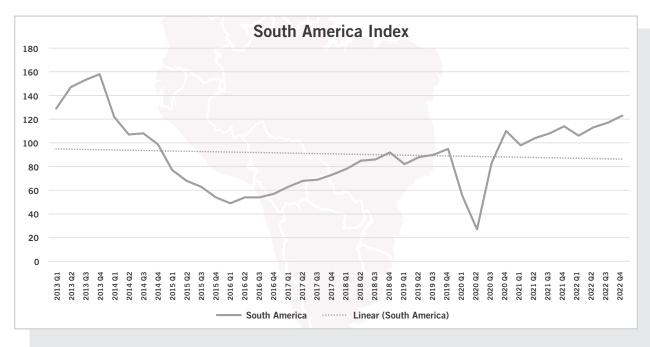


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Power Systems Research has been tracking the production of engines and their use around the world since 1976. We're the leading company in the world doing this research and building these databases.

We have many of the largest companies in the world as our customers, including John Deere and Caterpillar. They subscribe to our unique databases, and their facilities around the world access our data and forecasts through the internet 24/7.

We're based in St. Paul, Minnesota, and we have offices and analysts located around the world, from Brussels to Beijing and Tokyo to Brazil, to help us collect and analyze this data.

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