Credit Benchmark®

Global Chip Shortage Undermines Post-Pandemic Credit Recovery

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The global economy currently faces multiple supply chain challenges, but the global semiconductor shortage is one of the most pressing.

As with many production shortages, this is the result of a perfect storm of apparently unrelated factors: trade wars and sanctions, COVID-linked supply squeezes, growing demand for chip-driven products, the short-lived Suez blockage, cold weather in Texas (with impacts on Samsung, Infineon, and NXP) and a factory fire in Japan (shutting down Renesas Electronics).

The shortage is hitting car manufacturing, with the majors announcing temporary factory closures; it has curbed iPad and MacBook production but – oddly – not iPhones; and it is likely to push up prices of the growing number of smart household goods, in addition to the overall cost of automation. With the inexorable need for more chip speed and memory by the telecoms and server farm industries while economies attempt to exit from lockdowns, this shortage is likely to get worse before it gets better.

The credit impact is obviously negative for many firms, but there may also be some winners: some chip manufacturers could see margins expand, albeit on reduced volumes. Figures 1 and 2 below and overpage compare the credit status and recent trends for some of the largest producers and consumers of semiconductors globally.

Figure 1: Sample of major semiconductor manufacturers

6M	Downgrade	Deteriorating	No Change	Improving	Upgrade
IG1			NVIDIA TAIWAN SEMI ASE		TEXAS INSTRUMENTS INTEL QUALCOMM
IG2					ST MICRO BROADCOMM
Crossover					
HY1					
HY2					

The largest semiconductor firms are mainly in the upper investment grade category; none of the majors are sub-investment grade or in the crossover boundary category. Most of these firms have been upgraded by at least one consensus notch in the past 6 months.

Figure 2: Sample of major semiconductor users (Nvidia customers)

6M	Downgrade	Deteriorating	No Change	Improving	Upgrade
IG1			NINTENDO SAMSUNG FACEBOOK AMAZON CISCO ALPHABET		
IG2		HP	ACER	SONY GROUP LG ELECTRONICS	
Crossover	HUAWEI ATOS		INVENTEC DELL	WIWYNN	LENOVO
HY1					
HY2					

In this sample of Nvidia customers – typical of most semiconductor companies – the majority of firms are investment grade. However six of them are in the crossover category, and across all credit categories three of them have seen a deterioration or downgrade in consensus credit risk over the past 6 months. The majority show no change or improvements / upgrades, but this could change in the coming months if the chip shortage continues to bite.

Auto manufacturers are a high-profile casualty of the semiconductor shortage – for more detail on credit trends in that sector, see the recent CB Insight report.

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