

Trump and the global chip shortage

Jaume Carles Pallares
Discretionary Portfolios & 3rd Party Funds
ANDBANK Asset Management

15 May 2019 The Trump administration orders the USA Department of Commerce to immediately add Huawei and 70 related subsidiaries to the "Entity List", a measure that prohibits American companies from exporting components and technology to Huawei without USA government approval. The argument for banning business relations with Huawei is that the company is accused of aiding the Chinese government in espionage, and is considered a threat to the USA's security. Subsequently, the United States would continue to tighten the noose around China's technology industry, adding companies such as SMIC, China's largest semiconductor supplier, to the list.

The COVID-19 crisis has hidden from the headlines a multitude of issues of great social and economic significance. Prior to the outbreak of the pandemic, readers will recall that headlines in the business press in those days were dominated by the trade conflict between the United States and China. Well, this conflict has continued to escalate in the background, and the consequences are starting to trickle down to the real economy. In finance, measures taken by different actors often have "unexpected" second-round effects, and this is what is happening right now with sanctions in China and the chip market.

With the post-COVID-19 "return to normality", manufacturers are encountering a new problem: the global chip shortage. The global supply shortage is having powerful effects on the technology sector, such as delays in production or increases in sales costs. For example, have you seen the news of Seat's Temporary Workforce Reduction Plan for 550 workers? The reason for this was the company's inability to supply this component, breaking the logistical chain in vehicle production. Chips, after all, are the brains of any minimally "smart" technological product.

Huawei has recently pointed to the USA and its sanctions as the culprit for this shortage, a view shared and noted by many industry analysts. The argument is that because of the panic over the sanctions that the United States has put or might put on Asian companies, they have accumulated more stock than normal. In the past, companies hardly stocked this component at all, as part of a just-in-time production system. But now, they are rapidly accumulating three to six months of inventory, completely disrupting the system. Businesses have been pushing up the demand for chips, and suddenly there are not enough factories in the world to meet this volume of demand (this is the case for microprocessor or graphics card companies). At the same time, companies that had completely stopped their activity during the pandemic and now want to re-start production (e.g., automotive), are the last in line when it comes to placing orders at the factory. And, obviously, chip producers either ask for much higher prices to prioritise this demand, or deny the request for production outright.

Obviously, chip producers such as TSMC (the market share leader with 28% of the global semiconductor market) have taken advantage of this particular situation to leverage their pricing power and raise selling prices. Chip production has high entry and scalability barriers, which leads to this short-term inefficiency: although there is

unmet demand, the technology to produce them is complex and a new factory cannot be set up overnight. Although the industry is investing rapidly to increase capacity, the construction of new plants is slow, and, at this impasse, semiconductor prices will continue to rise and generate an inflationary effect on all types of products using these components.

Ultimately, the result of this dynamic is that semiconductor companies have seen their profits and stock prices soar. Companies within the supply chain such as Lam Research, Nvidia, AMD and Applied Materials have seen share prices multiply in the last year, making it one of the hottest sectors in the stock market in 2021. Two catalysts have driven this trend recently: the scarcity of automotive chips has boosted the revenue generation of companies in this niche market. At the same time, the perception required to expand production capacity has boosted the performance of those companies producing the necessary (e.g., ASML) and specific machinery to start up new production sites.

From a portfolio management point of view, although some of these companies have been incorporated into our investment portfolio, we regularly monitor developments in industry metrics to control the risks involved in investing in the sector. Thus, although the current pricing power of these companies remains intact, in this exuberance some analysts warn of medium-term risks. Recently, companies such as TSMC have publicly acknowledged that much of the excess demand comes from stock build-up and not from organic demand or real need. Thus, if the most optimistic visions of growth in the sector for the coming years fail, we could run the risk that much of this new capacity (factories) will not be in real demand, and that the sector could quickly find itself in the opposite situation (oversupply and no margin for negotiating prices, which would be significantly reduced). In the meantime, we will remain invested and hope that these companies will do their best, so that consumers can go to the shop and continue to buy all these products for which there is demand: laptops, graphics cards or the next *PlayStation*.