

CURRENT AFFAIRS

Truth about the Chip Shortage by Anil Shrivastava 'Musafir'

The



artificial life that we have created for ourselves today is mainly dependent on two major man-made inventions, communication satellites and electronic chips (chips). Practically everything that we use today is operated with the help of those tiny chips, such as cars, computers, phones, washing machines, electric toothbrushes, and refrigerators to name a few. There are microchips in nearly everything we own.

Right now, we have a shortage of chips that has forced car companies to halt production, has caused prices of products to go up, and may already have endangered America's national security. This is concerning. The worst part is that the U.S.A. is almost entirely dependent on one Taiwanese company, Taiwan Semiconductor Manufacturing Co. (TSMC) for

procuring these chips. Although the microchips were invented in the United States, there is only one chip manufacturing company left here today named Intel.

TSMC's technology is so advanced that it now makes along with UMC (another Taiwanese company) around 42% of the world's most sophisticated chips. Intel's global market share is just 15.6% and its chips' capability is inferior to TSMC's. TSMC plans to invest another 100 billion dollars to expand its research and production facilities in the next three years. Compared to that, Intel's plan is to spend another 20 billion dollars in Arizona.

Before I go any further into the topic, let me mention that the present shortages of chips happened due to interruption in the supply chain caused by the Covid pandemic and

because of an unprecedented increase in demand for these electronic chips. According to some estimates, normalcy in the industry will not be achieved until the year 2023.

This is the result of America's short-sightedness in planning ahead in combination with savage corporate greed. Unfortunately, the tech giant's only motive is to make money at any cost. They are the true rulers of America and they decide American policies at home and abroad. We, the people merely go to the polling booths to elect so-called representatives who are paid agents of big corporations. Our politicians and corporations have made us vulnerable for their own profit.

Apple decided to buy chips overseas to add to its profit. Think about this, Apple will get nearly 53% of all the chips produced by TSMC in 2021. TSMC always prioritizes Apple and Apple always gets cutting-edge technology from them. In fact, even our own American chip manufacturing company Intel plans to get chips from TSMC starting next year.

"Apple has money and the quantity that could match TSMC's ability. Apple sells more than 200 million iPhones and nearly 50 million iPads per year. With the introduction of M1 Macs, the quantity of Apple devices with TSMC chips will definitely grow. Apple definitely needs at least 200 million chips per year and they have the money to procure it. Prioritizing Apple definitely makes sense for TSMC when you see it in this regard. (Dhanush, July 5, 2021, Medium.com)."

Apple is not alone in making us depend on TSMC. Other U.S. corporations including AMD, ARM, Broadcom, Marvell, MediaTek, Nvidia, and many more have also followed the lead of Apple. The irony is that American consumers would buy anything from anyone just to save a penny. We all ought to be blamed for this.

Mr. Biden wants to include \$37 billion in his infrastructure package to help America find a

solution for the microchip shortage. For Mr. Biden everything is symbolic. He stated on February 23, 2021, "I'm directing senior officials in my administration to work with industry leaders to identify solutions to the semiconductor shortfall," "Congress has authorized a bill but they need ... \$37 billion to make sure that we have this capacity. I'll push for that as well."

What is \$37 billion going to achieve? As I mentioned earlier TSMC alone is planning to spend \$100 billion to expand its operation in Taiwan. In my opinion, the U.S. government should start a program of its own on NASA's scale to develop and manufacture microchips. Although I am an ardent supporter of free enterprise, the technology giants have failed us and have endangered our national security. NASA was created in response to the Soviet Union's October 4, 1957 launch of its first satellite, Sputnik I. The United States prided itself on being at the forefront of technology, and, embarrassed, immediately began developing a response, signaling the start of the U.S.-Soviet space race. John F Kennedy said the following on September 12, 1962:

"We choose to go to the moon. We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win, and the others, too. (John F Kennedy, America's 35th president)"

That was for going million of miles up in space. At the present, we have challenges of working in nanometers down here on earth. We have no choice but to bring our manufacturing and innovation skills back where they belong, here in the U.S.A.

