

Q: The trade conflict between the US and China has expanded to encompass advanced technology and semiconductor industries.

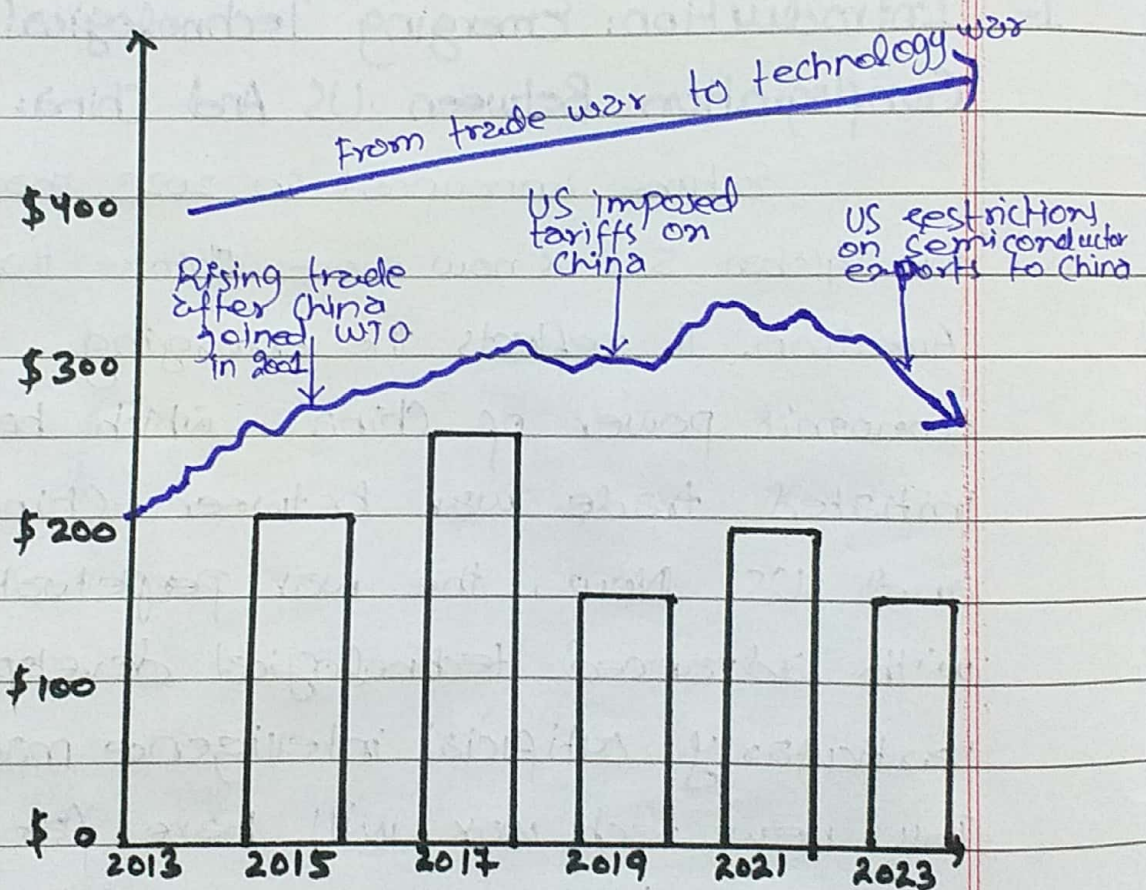
Discuss the implications of this technological and chip warfare for global trade dynamics, with a particular focus on the impact on countries in the Global South.

1- Introduction: Emerging Technological Conflagration Between US And China:

Fortune announced in 2023 that the Global 500 is now more Chinese than American. It reflects the emerging economic power of China, which has initiated trade war between China and US. Now, the war perpetuated with advanced technological development, particularly artificial intelligence machines. This new tech war will have far-reaching global consequences, including shift in global power dynamics, global tech race, supply chain disruptions and fragmentation in global market. Undeniably, the impacts on global

South will be more pronounced as it will further deepen digital divide and economic inequality.

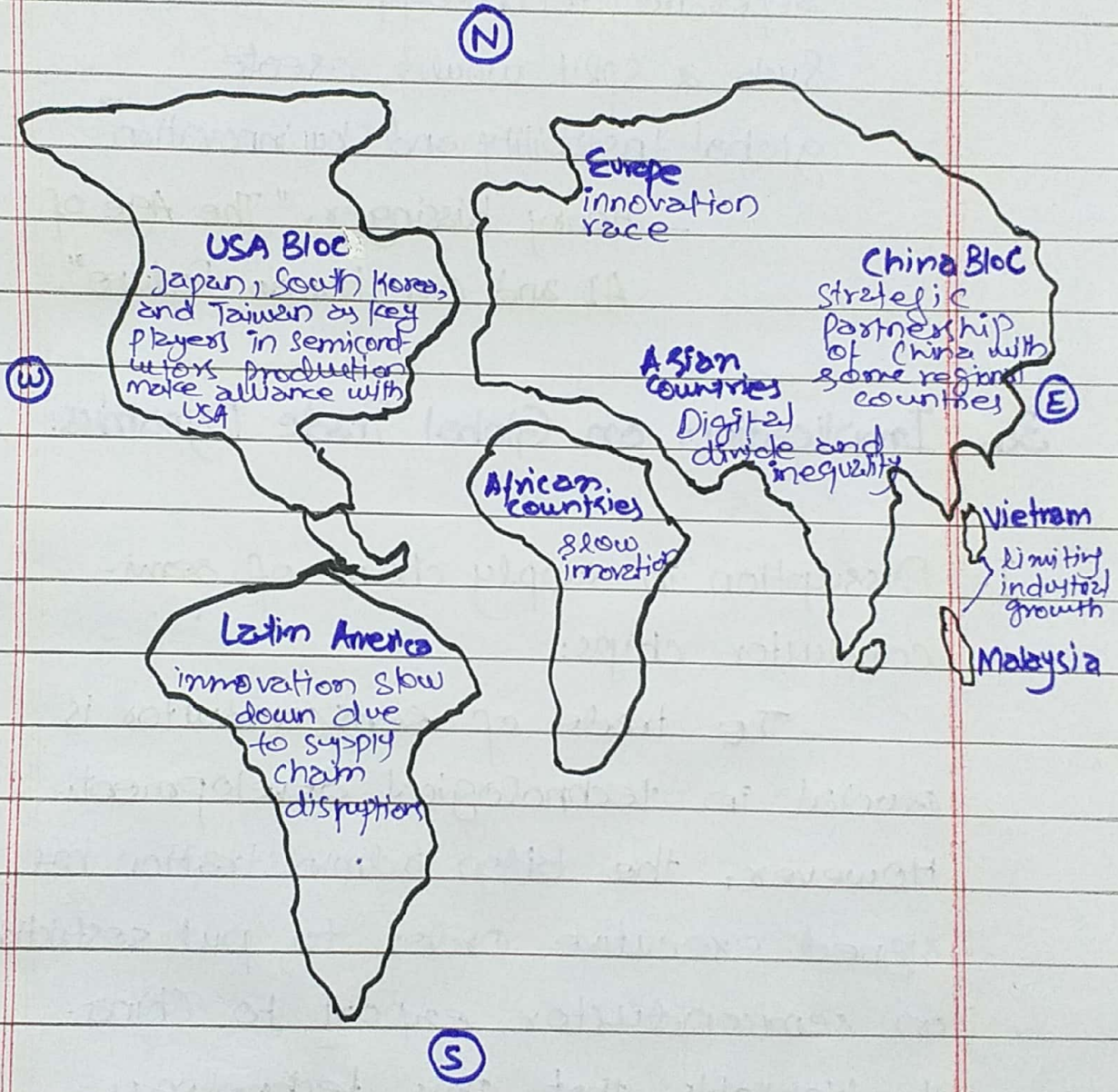
2. The Escalation Of Conflict Between China And US From Trade War To Technology And Semiconductor War:



Source: US Bureau of Economic Analysis

Figure shows the expansion of trade war between China and US to Semiconductor war

3- Ramifications Of Technological And Chip Warfare For Global Trade Dynamics And Global South:



Map showing the global impacts of technological war between the USA and China

"The US and China are on the brink of creating two distinct internets and two separate technology ecosystems.

Such a split would create global instability and slow innovation"

— Henry Kissinger, "The Age of AI and Our Human Future"

3a. Implications on Global Trade Dynamics:

I- Disruption in supply chain of semiconductor chips:

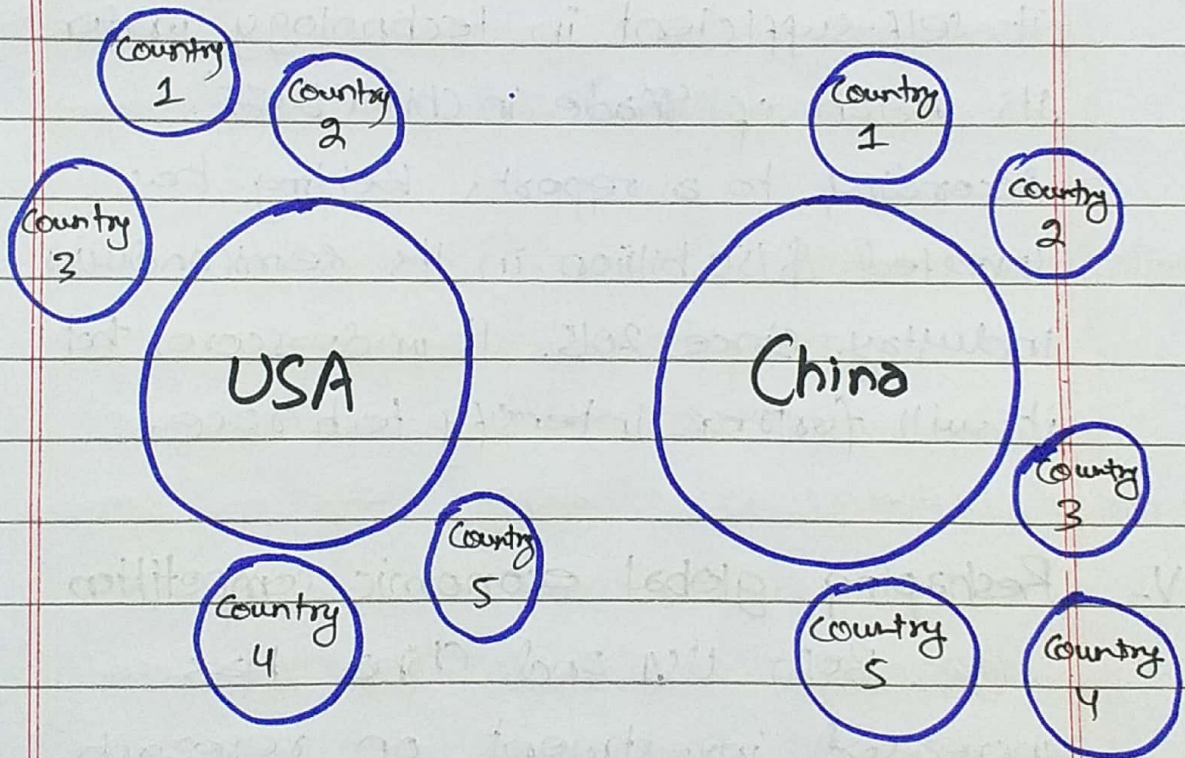
The trade of semiconductor is crucial in technological development. However, the Biden administration has signed executive order to put restriction on semiconductor export to China.

It highlights that this technology war will lead to limiting access to chips.

II- Realignment of global power dynamics Semiconductors are used in

almost all technological devices, ranging from smartphones to military systems. It shows that hegemony in having semiconductor industries will expand influence of countries globally. So, it has power to reshape the world.

III- Fragmented global markets with two tech blocs: Kenneth Waltz perspective:



Some countries, particularly Japan, South Korea and Taiwan will make alliance with the USA and other regional countries are likely to join China in this technological

was. As in Kenneth Waltz perspective, such wars shift the balance of power and make bi-polar world.

IV- Global tech race: Vision of China to achieve tech autarky:

US has imposed restrictions on semiconductor export to China. Therefore, China is committed to make it self-sufficient in technology under its vision of 'Made in China 2025'.

According to a report, Beijing has invested \$150 billion in its semiconductor industry since 2015. It underscores that it will further intensify tech race.

V- Reshaping global economic competition

Both USA and China has increased investment on research and development of semiconductors. For instance, the CHIPS Act of USA has led to \$157 billion worth of projects, creating over 25000 jobs in advanced manufacturing facilities.

VI- Exacerbating illicit trade of rare earth metals:

Due to limited supply of semiconductor chips, it may aggravate black markets of rare earth metals. They smuggle these metals from China. According to Chinese Internet Company, smuggling of these metals accounted for 40% of China's overseas exports.

3b- Impacts for the Global South:

I- Deepening digital divide and marginalization in technological development:

The Southern countries will have limited access to semiconductors due to this way, which further push them back in technology. For example, Malaysia and Vietnam's electronic manufacturing relies on import of semiconductors. Due to shortage, their industrial growth will decline.

II- Widening gap between Global North and Global South: Economic inequality:

The wealthier countries could have access to these technologies as they form alliances and invest in semiconductor industries.

However, poor countries will have to strive hard to acquire hardware for modern digital infrastructure.

Therefore, the gap between rich and poor countries will go further down.

III- Innovation slowdown in Global South:

The advanced technological development largely dependent on semiconductor chips. In the absence of these chips, the development in Southern countries can become stagnant. For instance, countries aspiring to build tech ecosystems like Nigeria and Brazil might struggle to keep up with innovation in sectors like AI and fintech, which rely heavily on semiconductors.

IV- Technological dependence: Compelled to choose side between USA and China:

The developing countries of Global South such as Pakistan, Iran and Afghanistan are completely dependent on developed countries for technology. Therefore, the tech wars will compel them to choose side between USA and China.

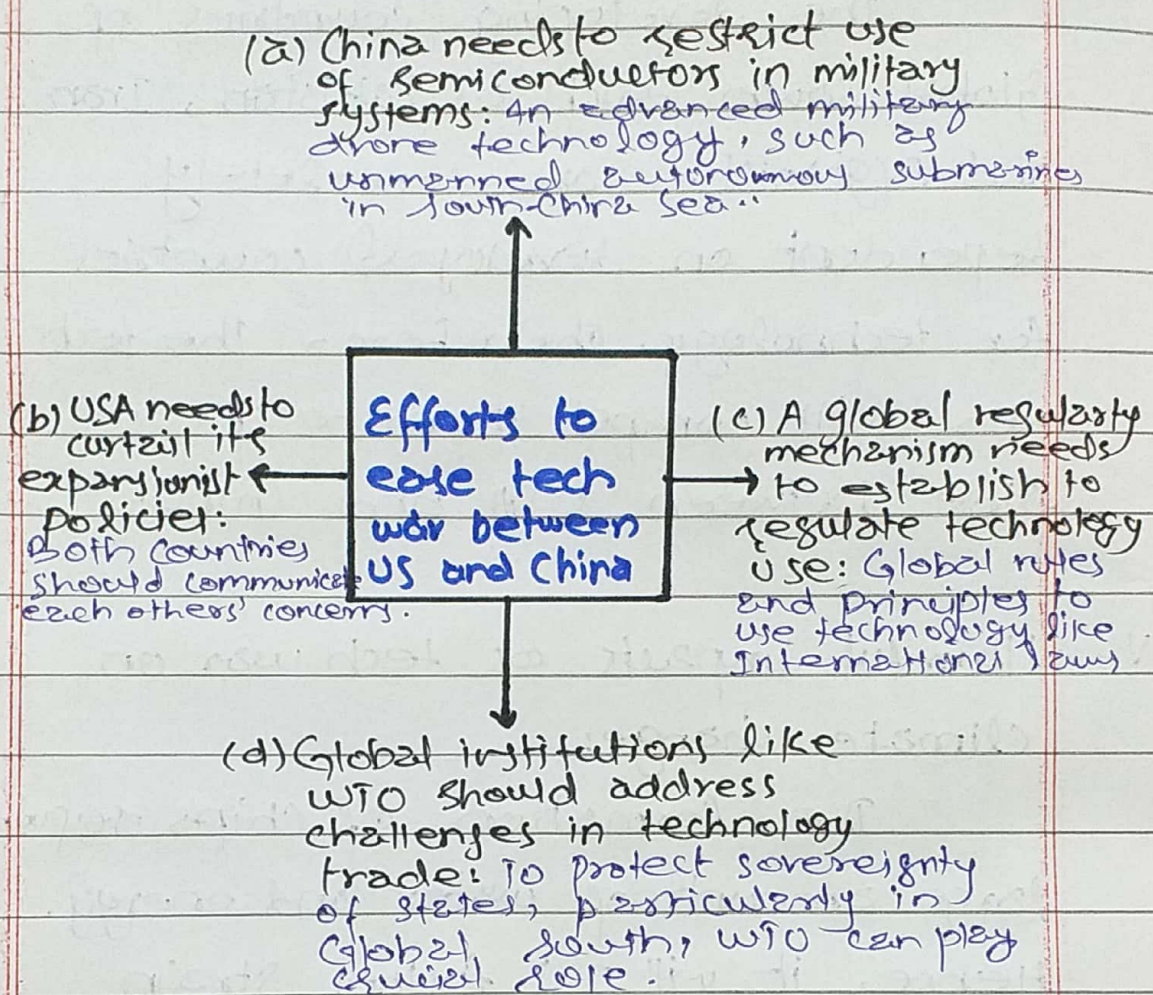
V- Harmful impacts of tech war on climate change:

The formation of chips requires large amount of water and energy. Hence, it will put further strain on resource, which will impact environment.

VI- Shifts in foreign direct investment:

The Global South will face severe impacts in form of foreign direct investment. Some countries like India may attract US investments but countries like Pakistan may face severe consequences.

4- Suggestions To Pave way For Reconciliatory Efforts For Technological Development:



5- Conclusion:

The new tech war in semiconductor industries between USA and China has changed the global power dynamics by bifurcating the world between two blocs. It will have huge impact on Global South as they are completely dependent on developed countries for technology.