STRATEGIC AUTONOMY

The Chips Act

Stakeholders

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Introduction

- Europe's goal to develop local microchip manufacturing, design, and innovation.
- EU's semiconductor law to boost EU chip production to 20% of the global market.
- The Chips Act aims to make the EU a stronger global player in semiconductor production and minimize the risks of a future supply chain disruption.

Investments

- The EU aims to mobilize over €43 billion of public and private investment until 2030.
- €11 billion pledged to help bring research applications to market.
- The EU has earmarked €3.3 billion from its budget.
- Most of Europe's overall investment in the semiconductor industry will consist of subsidies from national governments to attract private investment.
- The funding gap compared to the United States, China, and South Korea should be highlighted.

Market Problem

- Europe lacks the capacity to produce cutting-edge chips and plays a minor role in computer chip design.
- Shortages in the auto industry do not affect the peak segment of the market that will receive most of the funding from the Chips Act.
- State aid to this sector should be carefully balanced with European demand for these chips.
- Shortages in the automotive industry would be better addressed by increasing capacity in low-end chip manufacturing rather than advanced manufacturing.

Foundry Development in Europe

- The EU encourages EU countries to use state aid for investments through a rule specifically created for a single use case.
- The global race for subsidies for foundry construction carries the risk of funneling billions of public funds into unprofitable investments.
- Chip manufacturing in the EU suffers from a disadvantage in terms of electricity costs compared to regions such as Asia.
- The focus should not only be on industrial subsidies, but also on promoting the wider high-tech ecosystem.

Crisis Monitoring and Response

- The third pillar gives the Commission the power to buy chips on behalf of the EU and require smelters that have received EU subsidies to give priority to EU customers.
- It includes a proposal that will allow the Commission to restrict EU exports if it deems it necessary.
- The rationale for these interventions is much weaker for chips.

Risk of overcapacity

- The microprocessor market is characterized by cycles of expansion and contraction of demand and price. Indeed, the cyclical nature of demand comes up against the rigidity of production, and the adjustment from one to the other takes place first of all through prices. Thus, smartphone sales fell again in Q3 2022, falling to their lowest level since 2014. The prices of the chips used in the manufacture of these devices are therefore expected to fall next year and the supply for this component is largely assured. In other words, while businesses and governments around the world are investing hundreds of billions of dollars in response to the current shortage, there is a real risk of overcapacity for certain types of chips. The expected returns on these investments would then be jeopardized.

- The "European Chips Act" also generates a race for state subsidies between the different countries of the European Union, each wishing to host a "fab". Given the cyclical nature of the microprocessor market, the multiplication of manufacturing sites should increase these problems of overcapacity periodically encountered by chip producers.

Conclusion

- Europe needs to secure its supplies of microprocessors.
- The search for state-of-the-art microprocessors should not be our priority.
- The Chips Act has its limitations and should be carefully balanced with the needs of the European industry.