

Master's Degree in Policies and Governance in Europe Major in Economic Governance and Market Regulation

Chair of Industrial Policy in Europe

Chips Act and the media: elements of a public discourse on EU Industrial policy

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Introduction

In recent decades, the semiconductor industry has become a crucial pillar for the global economy, fueling innovation across a wide range of industries, from information technology to automotive. However, this growing reliance on semiconductors has also raised concerns regarding security and technological sovereignty. In this context, the European Union has sought to address global challenges and ensure its competitiveness through the ambitious goal of achieving Open Strategic Autonomy.

The concept of Strategic Autonomy has been recently developed in the last decade and has become one of the Union main goals for its future, but it is paramount to underline that calls for a more autonomous European Union, above all in the field of Security and Defence policy, have been made for years, since the failure of the European Defence Community.¹

This dissertation aims to examine first the concept of Strategic Autonomy, then the context of the semiconductors market in which the European Union is pursuing Strategic Autonomy with its recent initiative, the European Chips Act, and in the third chapter the response and analysis that European and international media have published about the European Chips Act.

More in detail, the first chapter lays the conceptual groundwork for understanding the main theme. This chapter will start by exploring the creation of the definition of strategic autonomy and its evolution over time, from the beginning of last decade to the concept of strategic autonomy in the Von Der Leyen Commission, analyzing the words of commissioners like Thierry Breton and Josep Borrell. Subsequently, it will also analyze how European leaders have presented strategic autonomy as a key element of the EU's future vision, mentioning for example the crucial meeting on this theme that took place in Versailles in march 2022.²

The second section of the first chapter will focus on the key areas identified by the European Union where achieving strategic autonomy is essential. Four critical areas will be explored: defense and security, energy, food security, and technology. Specifically, the section will analyze how strategic

¹ Mario, D. (2022). EU strategic autonomy 2013-2023: From concept to capacity.

² Versailles Declaration, Informal meeting of the Heads of State or Government, European Council, 11 March 2022, Available at: https://www.consilium.europa.eu/media/54773/20220311-versailles-declaration-en.pdf

autonomy has become a very broad theme at the European level, becoming an issue that touches many different sectors in which Europe must understand which is its role in the world economy.

The second chapter aims to provide an overview on the context of the semiconductor market. The first section will delve into the supply-chain and the manufacturing process that characterizes this sector and will give an overview of the role that Europe plays today in this critical industry. In recent years, as we will observe, semiconductor chips and their whole supply-chain have received the attentions of many governments across the globe, thus, to finalize the overview of the context of this industry we will briefly focus on the current tensions on chips between US and China.

The second section of the second chapter introduces the European Chips Act, a European initiative to enhance European Strategic Autonomy in the field of semiconductors. In the moment I am writing this dissertation, the European Chips Act consists of a proposal for a regulation, a communication, a joint undertaking, and a recommendation. The section will include an analysis on the three pillars of the European Chips Act, an review of the financing involved in the Act and a overview of how the European Chips Act will innovate state-aid rules at the EU level.

The third and final chapter of the dissertation provides insights into the perspectives of European and international media that have reported on the European Chips Act, trying to answer the question of this dissertation "How European and International Media responded to the European Chips Act". Analyzing media response and perspectives on the European Chips Act is an issue of paramount importance in the context of the growing concept of Strategic Autonomy in European Union's politics. The media play a crucial role in shaping public opinion and disseminating information to European societies. The media's role goes beyond merely reporting on the Act, the newspapers act as a bridge between European policymakers and the public, communicating the complexities and implications of Europe's dependencies on the semiconductor value chain. Through their coverage, the media can highlight the urgency and necessity for the European Union politicians to address these dependencies. These perspectives can provide a deeper understanding of the potential challenges, opportunities, and implications of the European Chips Act.

The first section of the third chapter analyzes the main themes emerging from the analysis of the media response, providing examples, and underlining how despite European and International Media have had different ways of reporting the Act the concepts of their analysis always came down to the same themes.

The second section of this chapter analyzes the positions of the single media on the single issues and on the chips act as a whole. As we will observe different media have had different perspectives on the European Chips Act and on the initiatives that are contained in it. Thus, the last part of this chapter will conclude by summarizing the media response to the European Chips Act, offering an overview of their perspectives.

In conclusion, this dissertation seeks to contribute to the ongoing debate in the EU on the European Chips Act. By examining the EU's policies and initiatives, analyzing the responses of the media, and exploring the potential implications for Europe's technological independence, this research aims to offer valuable insights into the path towards a more autonomous and resilient European semiconductor industry.

1. The European Union towards Open Strategic Autonomy

1.1. The definition of Strategic Autonomy

The framework of this analysis is in the concept of "strategic autonomy," of paramount importance for the comprehension of Europe's actions on the present global stage. As a matter of fact, while "Strategic Autonomy" is a rather new concept in EU policymaking related with industry, it has an old lineage. Its origin lies in the Defence domain, where since the 'prehistory' of the European community the objective of increased autonomy on the international stage has been present: as in the attempt of establishing the European Defence Community³.

More specifically, the pursuance of "Strategic autonomy" in this field can be considered as the European reaction to current transformation of the international system. While European integration has always developed within the international liberal order and under the influence of the United States, the slow disappearance of this world - in which many of European strategic interests were carried out under the umbrella of the US - has led the European Union to pursue a more autonomous role on the international stage⁴. This is the context where the concept of "Strategic autonomy" has been retaken in the Defense domain, as anticipated by the European Council conclusions on EU Common security and Defence policy (CSDP) of December 2013.⁵

Following this first appearance, "Strategic Autonomy" became a broader ambition for the Union in the context 2016 EU Global Strategy, agreed following Brexit Referendum⁶. A good example of this broader approach is in the definition provided later that year in the EU implementation plan on Security and Defence where it is stated that:

"strategic autonomy is the EU's ability to act in security and defence together with partners when it can, alone when it must".

³ Mario, D. (2022). EU strategic autonomy 2013-2023: From concept to capacity.

⁴ Tocci, N. (2021). European strategic autonomy: what it is, why we need it, how to achieve it. *Istituto Affari Internazionali*.

⁵ General Secretariat of the Council, EUROPEAN COUNCIL 19/20 DECEMBER 2013 CONCLUSIONS, European Council. (2013)

⁶ European External Action Service (EEAS), Shared Vision, Common Action: A Stronger Europe. A Global Strategy for the European Union's Foreign and Security Policy, June 2016, https://europa.eu/!Tr66qx.

⁷ Council of the European Union, Implementation Plan on Security and Defence (14392/16), 14 November 2016, p. 4, http://data.consilium.europa.eu/doc/document/ST-14392-2016-INIT/en/pdf.

While the political consensus in the European council on Strategic Autonomy has concentrated mainly on the Defence field, we are currently assisting to a broadening of its scope⁸. The confirmation of this trend is represented by the fact that the concept of strategic autonomy has filtered into other policies and became an alternative to the notion of "European sovereignty" in areas such as the economic, digital, energy, climate and migration domains⁹.

This has been the result of the concurrent action of different actors of the EU policy-making system:

- a. The European Commission
- b. The European Council
- c. The European Parliament
- d. Other EU institutional actors
- e. National Leaders

a. Strategic Autonomy in the European Commission

While the concept of "Strategic Autonomy" – whose origin can be traced back to the last months of the Barroso Commission – was further developed during Jean-Claude Juncker Commission's, it has undoubtedly flourished during the Von der Leyen Commission, when it was put at the core of European Commission action.

This development has been clear since the presentation of the European Commission in front of the European Parliament in November 2019. It is on that occasion that the President mentioned for the first time the European Commission as a *geopolitical Commission* adding to this that fact that it is exactly this kind of Commission "that Europe urgently needs".¹⁰

This initial statement was further reinforced by the different crises that have characterized the Von der Leyen's Commission. The barriers hoisted up during the outbreak of the coronavirus lockdowns; the European dependencies on energy and food that followed the war between Russia and Ukraine, the need for critical raw materials for the double transition, the increasing need to produce some

⁸ ANGHEL, S. E., Immenkamp, B., LAZAROU, E., Saulnier, J. L., & Wilson, A. B. (2020). On the path to 'strategic autonomy': The EU in an evolving geopolitical environment.

⁹ Tocci, N. (2021). European strategic autonomy: what it is, why we need it, how to achieve it. *Istituto Affari Internazionali*.

¹⁰ Speech by President-elect von der Leyen in the European Parliament Plenary on the occasion of the presentation of her College of Commissioners and their programme, Ursula Von der Leyen, European Parliament, 27 November 2019, Available at: https://ec.europa.eu/commission/presscorner/detail/en/speech 19 6408

strategic goods are all aspects which contributed to the reinforcing of "Strategic Autonomy" as a central concept in today's Europe public discourse.¹¹

The confirmation of this centrality of Strategic Autonomy - and given the attention of this dissertation to the building of a public discourse in Europe - is yielded by an analysis of the use of the expression "Strategic Autonomy" in the public sphere. As a matter of fact, the concept has recently slipped more and more into the official documents, the speeches, and the public communication of the leaders of European institutions and Member States. Indeed, many Commissioners have pushed the use of the term Strategic Autonomy into the European public discourse.

Moreover, the Commission has underlined Strategic Autonomy as one its final objective in the Joint Communication to the Parliament and the Councils on the "European Economic Security Strategy". The goal of the strategy is clear, making European industry more competitive and pursuing Strategic Autonomy, and it is outlined in these sentences:

"This strategy builds on the work already started at European level, taking a critical look at the Union resilience and vulnerabilities in order to make the European economy and industry more competitive and resilient and strengthen our open strategic autonomy".¹²

Just to number few examples, it was Ursula von der Leyen emphasizing the theme during a joint press conference with the President of the European Council, Charles Michel, and the NATO Secretary-General, Jens Stoltenberg:

"A few words on the topic of Strategic Autonomy (...) Because Strategic Autonomy is not only limited to defense; it includes defense, of course. And Strategic Autonomy does not mean that you do not cooperate. You cooperate with like-minded partners". 13

On the same note, the European Commissioner for the Internal Market, Thierry Breton, linked the issue of Strategic Autonomy to that of Sovereignty indicating that:

¹¹ Bassot, É. (2022). The six policy priorities of the von der Leyen Commission: State of play as the commission approaches mid-term.

¹² Joint Communication to the European Parliament, the European Council and the Council on "European Economic Security Strategy", European Commission, 20 June 2023, Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52023JC0020

¹³ Joint press conference by NATO Secretary General Jens Stoltenberg, President of the European Council Charles Michel and President of the European Commission, Ursula von der Leyen, North Atlantic Treaty Organization, 10 January 2023, Available at: https://www.nato.int/cps/en/natohq/opinions_210551.htm

"when we speak of strategic autonomy – or what is sometimes referred to as sovereignty or resilience – we are not talking about isolating ourselves from the world, but having choice, alternatives, competition. Avoiding unwanted dependencies, both economically and geopolitically". ¹⁴

Again, it was Josep Borrell to refer to the fact that:

"strategic autonomy is a state of mind. We should look at the world through our own prism (...) Strategic autonomy is a way of framing our choices: we must be able to defend our interests, by ourselves if necessary". 15

b. Strategic Autonomy for the European Council and the Council of the European Union

This Commission's increased attention is clearly reflected in the increasing prominence given to the concept in the conclusions of the European Council. As an example, Member States have begun to call for a more ambitious industrial policy, that would enable the achievement of strategic autonomy:

"the European Council (...) in particular the importance in the current global context of an ambitious European industrial policy to make Europe's economy fit for the green and digital transitions and reduce strategic dependencies". 16

On the same note, in the 2019-2024 Strategic Agenda of the European Council, European Leaders underlined that the EU needed to "pursue a strategic course of action and increase its capacity act autonomously to safeguard its interests".¹⁷

Again, the President of the European Council Charles Michel, starting to underline the relevance of this topic back in 2020, clearly identified the three objectives of Strategic Autonomy in the first place: "One: stability. Two: disseminating our standards. And three: promoting our values". ¹⁸

https://www.consilium.europa.eu/en/press/press-releases/2022/12/15/european-council-conclusions-15-december-2022/

https://www.consilium.europa.eu/en/press/press-releases/2019/06/20/a-new-strategic-agenda-2019-2024/

¹⁴ Speech by Commissioner Breton at the launch of the European Raw Materials Alliance, Thierry Breton, European Commission, 29 September 2020, Available at: https://ec.europa.eu/commission/presscorner/detail/en/speech_20_1776

¹⁵ The pandemic should increase our appetite to be more autonomous, Josep Borrell, European Union External Action Service, 4 July 2020, Available at: https://www.eeas.europa.eu/eeas/pandemic-should-increase-our-appetite-be-more-autonomous en

¹⁶ European Council conclusions, 15 December 2022, European Council, Available at:

¹⁷ A New Strategic Agenda 2019-2024, European Council, 20 June 2019. Available at:

¹⁸ 'Strategic autonomy for Europe - the aim of our generation' - speech by President Charles Michel to the Bruegel think tank, European Council, 28 September 2020. Available at: https://www.consilium.europa.eu/en/press/press-

The increasing prominence of Strategic Autonomy in European Council meetings is evident, notably during the special meeting held on October 1st and 2th, 2020. During this gathering, heads of government from Member States, amid lockdowns and supply shortages, underscored the theme of European strategic autonomy. They emphasized that achieving this autonomy while upholding an open economy stood as a cardinal objective.¹⁹

This trend can also be observed in the Versailles Declaration of March 2022 when, at the end of an informal meeting of the European Council, European leaders reaffirmed their intention to reduce the strategic dependencies to which the Union is subject, particularly in the areas of critical raw materials and semiconductors²⁰. A perspective which was to be confirmed only months later when Member States once again reaffirmed the importance of Strategic Autonomy, reiterating that: "recent developments, in particular the impact of the Covid-19 pandemic, global shortages of supply in essential goods and services (...) have further confirmed the importance of pursuing the EU's strategic autonomy while preserving an open economy."

c. Strategic Autonomy for other European Union institutions

The relevance of the concept of Strategic Autonomy can also be traced in the speeches of other European Institutions high officials. An example of that are the words of the President of European Central Christine Lagarde who following the informal meeting happened in Versailles at the European Council of Berlin stated that:

"The idea of strategic autonomy is no longer simply desirable – it is essential. The summit in Versailles last week exemplified the united approach required to make Europe stronger in all areas.".²²

releases/2020/09/28/l-autonomie-strategique-europeenne-est-l-objectif-de-notre-generation-discours-du-president-charles-michel-au-groupe-de-reflexion-bruegel/

¹⁹ Special meeting of the European Council (1 and 2 October 2020) – Conclusions, European Council, Bruxelles, 2 October 2020, Available at: https://www.consilium.europa.eu/media/45910/021020-euco-final-conclusions.pdf

²⁰ Versailles Declaration, Informal meeting of the Heads of State or Government, European Council, 11 March 2022, Available at: https://www.consilium.europa.eu/media/54773/20220311-versailles-declaration-en.pdf

²¹ Council Conclusions on the EU's economic and financial strategic autonomy: one year after the Commission's Communication, Council of the European Union, 29 March 2022, Bruxelles, Available at: https://data.consilium.europa.eu/doc/document/ST-6301-2022-INIT/en/pdf

²² Remarks on the euro area economy, by Christine Lagarde, President of the ECB, at the "Wirtschaftsgipfel" of Welt/Axel Springer in Berlin, Berlin 15 March 2022. Available at: https://www.ecb.europa.eu/press/key/date/2022/html/ecb.sp220315~c861c9d88f.en.html

The theme of strategic autonomy and its relevance to the European Central Bank (ECB) is not only apparent from Christine Lagarde's statements but also from a paper by the European Central Bank dated March 2023. In this publication, the theme of strategic autonomy is, of course, linked to matters that are more closely related to the ECB, such as the Economic and Monetary Union (EMU) and the euro, for example. The paper refers to strategic autonomy in these terms:

"In the EU, developments in the context of strategic autonomy are also related to the debate over strengthening the EU and EMU. Individual Member States might not be economically or geopolitically powerful enough to achieve desirable elements of open autonomy by themselves in a globalized environment". ²³

Furthermore, also the President of the European Parliament Roberta Metsola cited the issue at the informal European Council of Versailles:

"we must talk more about food security. This must also become part and parcel of our discussions on Europe's strategic autonomy". ²⁴

Moreover, the theme of strategic autonomy as an antidote to the cycle of recurring crises that have affected Europe in recent years has also been analyzed by the European Parliament's think tank in a recent publication in the following terms: "In the present environment of recurring global crises, open strategic autonomy can be called upon to provide the required preparedness, by adding geopolitics to the equation". ²⁵

d. Strategic Autonomy: the standpoint of EU National Leaders

Strategic Autonomy is also often present in the speeches of European Union's National Leaders: First and foremost, there are the positions of French President Emmanuel Macron. Starting from his famous speech of the Sorbonne, Macron has come back to the issue in several occasions. Among the numerous examples he recently declared during a recent trip to China that:

²³ Ioannou, Demosthenes, et al. "The EU's Open Strategic Autonomy from a Central Banking Perspective. Challenges to the Monetary Policy Landscape from a Changing Geopolitical Environment." (2023).

²⁴ We need to reassess Europe's role in a new world: Metsola to EU leaders, European Parliament Press Release, Roberta Metsola, 10 March 2022, Available at: https://www.europarl.europa.eu/news/it/press-room/20220310IPR25211/we-need-to-reassess-europe-s-role-in-a-new-world-metsola-to-eu-leaders

²⁵ Andres, Garcia Higuera. "What if open strategic autonomy could break the cycle of recurring crises?." (2023).

"If the tensions between the two superpowers (USA and China) heat up (...) we won't have the time nor the resources to finance our strategic autonomy and we will become vassals". ²⁶

On the same tone Chancellor Olaf Scholz has recently restated the importance of working towards making the EU more autonomous:

"My interest here is not in semantics. After all, what European sovereignty means in essence is that we grow more autonomous in all fields; that we assume greater responsibility for our own security; that we work more closely together and stand yet more united in defence of our values and interests around the world." ²⁷

Also former Italian Prime Minister Mario Draghi has often spoken in favor of strategic autonomy and a broader interpretation of this term, such as in his speech at the Italian Senate in March 2021:

"We often talk about strategic autonomy. We often talk about it in relation to defence and security, to the single market. But I believe that the first strategic autonomy is in terms of vaccines today". ²⁸

As a general indication it can be concluded that this concept has been used for different purposes. In the first years after its creation, it was used to underline Europe's ability in the military field. In a second phase, while remaining connected to the Defence domain, it has also been tied to the recent crises Europe has faced in order to stress Europe should have been able to respond in such crises in a more autonomous way with reference to its partners on the international stage.

²⁷ Speech by Federal Chancellor Olaf Scholz at the Charles University in Prague on Monday, 29 August 2022. Avaialable at: https://www.bundesregierung.de/breg-de/impressum/scholz-speech-prague-charles-university-2080752

²⁶ Europe must resist pressure to become 'America's followers,' says Macron, Politico EU, April 9 2023, By Jamil Anderlini And Clea Caulcutt. Available at: https://www.politico.eu/article/emmanuel-macron-china-america-pressure-interview/

²⁸ Comunicazioni Presidente Draghi – Senato, Mario Draghi, Senato della Repubblica Italiana, 24 March 2021, Available at:

https://www.sanita24.ilsole24ore.com/pdf2010/Editrice/ILSOLE24ORE/QUOTIDIANO SANITA/Online/ Oggetti Correl ati/Documenti/2021/03/25/Draghi.pdf?uuid=ADLnlhSB

1.2. The European Union's Main Critical Areas of Strategic Autonomy

Given this brief 'history' of the theme in European's Union jargon, it can be said that there are four main areas in which the EU is currently pursuing strategic autonomy.

a. Defence and Security

The European Union's pursuit of strategic autonomy in defense and security marks a pivotal step in shaping its global identity. At its core, this endeavor aims to lessen EU's reliance on external entities for its defense capabilities and security measures. By cultivating a self-sustaining defense framework, the EU aims to bolster its sovereignty, fortify its resilience against emerging threats, and project its influence effectively on the global stage.

The strategic autonomy quest holds great significance due to the vulnerabilities associated with dependence on external defense mechanisms. Relying solely on partner nations or alliances can compromise the EU's decision-making freedom and hinder rapid responses to evolving security challenges. The aspiration to autonomously produce, deploy, and manage defense resources aligns with the EU's commitment to safeguarding its interests and citizens autonomously. This shift toward strategic autonomy underlines the EU's determination to solidify its role as a proactive and self-reliant global actor in matters of defense and security. A key goal for European strategic autonomy in security and defence, is the European ability and capacity to decide when, where and how to deploy military forces, also when the interests of the US and the EU diverge.²⁹

As examples of this effort towards Strategic Autonomy in Defence and Security we can consider various collaborative initiatives within the EU to enhance Defence capabilities. Firstly, the Permanent Structured Cooperation or PESCO on security and Defence policy is a key tool to help the EU to act alone when necessary and with partners when it is possible.³⁰ Another key tool to gain more Strategic Autonomy in Defence is the "European and Defence Fund", a real game changer for European Defence considering the unprecedented co-funding of research and development expenses of cuttingedge defence systems that helps strengthen Strategic Autonomy.³¹ In this context it is obvious that

²⁹ Zandee, D., Deen, B., Kruijver, K., & Stoetman, A. (2020). European strategic autonomy in security and defence. The Hague: Clingendael.

³⁰ LATICI, T., & LAZAROU, E. (2020). PESCO: Ahead of the strategic review.

³¹ Sabatino, E. (2022). The European defence fund: a step towards a single market for defence?. Journal of European Integration, 44(1), 133-148.

the war started in March 2022 has only deepened the debate on strategic autonomy considering that European interests towards the war may diverge from the ones of its most historical partner, the US.³²

b. Energy

Energy security lies at the core of the European Union's pursuit of strategic autonomy. As a linchpin of economic growth, environmental sustainability, and geopolitical influence, securing a diverse and reliable energy supply is imperative for the EU's self-reliance and global positioning. Currently the goal of an energy strategic autonomy is far from being achieved considering that the EU imports almost 60% of its energy.³³

In order to go towards Strategic Autonomy in the Energy domain the EU must assure itself a diversification of energy sources, preferably renewable, however this goal seems far from being achieved considering that in 2020 the EU energy mix was still composed of 47% by petroleum products and solid fossil fuels.³⁴

According to a European Parliament study on "*The path to strategic autonomy*" strategic autonomy in the energy field has always been difficult to pursue, mainly due to the high and growing reliance on energy imports, particularly with fossil fuels.³⁵ This massive import of energy has clearly gone hand in hand with a decline in primary energy production that according to Eurostat has fallen by 9,2% between 2008 and 2018.³⁶

The diversification of sources must also be linked to the diversification of suppliers; therefore, it is crucial to consider the geopolitical implications of the EU dependency for energy supply, also taking into account that every member state in the Union is a net importer of energy. From the outbreak of the war between Russia and Ukraine the dependence on Russia has fallen massively and while this may be an improvement the risk has remained because the EU now relies on new energy exporters that could easily become a future critical dependency. Suppliers located in Africa or in the Middle East could face challenges, such as conflicts or regional crises. Additionally, they might use their

³² Progressive pathways to European strategic autonomy. How can the EU become more independent in an increasingly challenging world?, A. Burni, E. Knudsen, J. Nogarede, N. Pirozzi, D. Rinaldi, 28 February 2023, Available at: https://feps-europe.eu/publication/progressive-pathways-to-european-strategic-autonomy/

³³ Mario, Damen. (2023). EU strategic autonomy: Four energy crisis challenges.

³⁴ Mario, Damen (2023). EU strategic autonomy: Four energy crisis challenges.

³⁵ ANGHEL, S. E., Immenkamp, B., LAZAROU, E., Saulnier, J. L., & Wilson, A. B. (2020). On the path to 'strategic autonomy': The EU in an evolving geopolitical environment.

³⁶ Eurostat, Energy Production and Imports, Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Energy production and imports

energy exports to influence EU policies that align with their interests. Considering these factors, mitigating the risk of dependency calls for a strategy centered on diversifying supplies. In pursuit of this objective, the significant importation of Liquified Natural Gas from the US serves as a notable illustration of diversification.³⁷

However, in the pursuit of Strategic Autonomy and energy security, the EU must focus on reducing energy imports. It should also recognize that there are four crucial energy sectors crucial for facilitating a transition to green energy: solar, wind, nuclear, and hydrogen.³⁸

c. Food Security

The third domain interested by the concept of "Strategic autonomy" is that of food security. The latter encompasses more than mere sustenance and covers sovereignty, stability, and sustainability, as it should secure a consistent and diverse supply of safe and nutritious food. Again, the concerns on European autonomy concerning food supply have been rising recently following the Ukrainan conflict, in light of Ukraine's role as a massive exporter of grain. While the debate on Strategic Autonomy and food security is rather new, there have been interesting statements of its importance. In this respect it can be mentioned the European Economic and Social Committee (EESC), which is pushing to create a definition of open strategic autonomy based on "food production, workforce and fair trade, with the overarching aim of ensuring food security and sustainability for EU citizens through a fair, sustainable and resilient food supply". ³⁹

Along the same approach, the European Parliament recently proposed the

"use of the EU's strategic food stocks, a protein and feed strategy to allow farmers to become less reliant on third countries, new breeding techniques to decrease the use of synthetic fertilisers and pesticides, and investments in digital technologies in agriculture. It also demands a dedicated EU programme for water management, the reduction of food waste and reciprocity in trade of agricultural products with third countries." The draft text was a call on the EU to enhance its food security and strategic autonomy. ⁴⁰

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³⁷ Mario, Damen (2023). EU strategic autonomy: Four energy crisis challenges.

³⁸ Mario, Damen (2023). EU strategic autonomy: Four energy crisis challenges.

³⁹ Opinion NAT/822-EESC-2021 from the European Economic and Social Committee of 25 March 2021, 'Strategic autonomy and food security and sustainability'.

⁴⁰ Ensuring food security and resilient EU agriculture, Briefing 8 June 2023, Available at: https://www.europarl.europa.eu/news/en/agenda/briefing/2023-06-12/8/ensuring-food-security-and-resilient-euagriculture

d. Technology

Finally, in an era defined by technological acceleration, the European Union's drive for Strategic Autonomy hinges deeply on its ability to master and shape emerging technologies. From digital innovation to data governance, the EU's quest underscores its determination to secure technological sovereignty and establish a self-reliant position in the dynamic global technological landscape. When it comes to Strategic Autonomy in the field of technology another relevant concept that is crucial to mention is European Technological Sovereignty (ETS). This concept together with Strategic Autonomy represent the effort of the EU and its Member States to ensure European technological leadership and its dependency towards other actors on the international stage.⁴¹

The need for Strategic Autonomy in the technological and digital area has clear moments of passage. The first one came from the growing duel between USA and China that saw its outbreak in 2017. The second trigger for European policymakers was the Covid-19 pandemic which continued the trend of tensions between the US and China.

The third one has been the war in Ukraine, which exacerbated this trend even further. For the EU and its member states the debate around European Technological Sovereignty has initially revolved around the EU's dependence towards the two main global powers, US and China.⁴²

e. The Chips Act and Technological Sovereignty

It is in the State of the Union address of 2020 that President Von der Leyen, spoke about digital sovereignty, mentioning connectivity and digital infrastructure. Since then, she has often presented her vision about EU Strategic Autonomy in the technological and digital domain. And it is in this context of increasing attention to the theme that she anticipated the launching the European Chips Act in her State of Union address of 2021⁴³.

The characteristics of the semiconductor sector and the analysis of the Chips Act are the object of the following chapter.

⁴² Open Strategic Autonomy: The Digital Dimension, Maaike Okano-Heijmans, January 2023, The Hague: Clingendael.

⁴¹ Beaucillon, C., & Poli, S. (2023). Special Focus on EU Strategic Autonomy and Technological Sovereignty: An Introduction. European Papers-A Journal on Law and Integration, 2023(2), 411-416.

⁴³ State of the Union Address of 2020 and State of the Union Address of 2021, Ursula Von der Leyen, European Commission. Available at: https://state-of-the-union.ec.europa.eu/system/files/2022-08/soteu_2020_en.pdf and at: https://state-of-the-union.ec.europa.eu/system/files/2022-12/soteu_2021_address_en.pdf

2. The context of semiconductor industry and the European Chips Act

2.1. From Strategic Autonomy to the context of the semiconductors market

The semiconductor industry stands as a cornerstone of modern technological progress, fueling innovation across a multitude of sectors: it has, therefore, a very specific position with reference to Strategic autonomy. ⁴⁴ The link between Strategic Autonomy and semiconductors is made clear by an examination of the dynamics of this industry. As a matter of fact, the semiconductor industry is characterized by a handful of multinational corporations that wield an immense influence in chips manufacturing and design. They go under the names of Taiwan Semiconductor Manufacturing Company, Samsung, and Intel.

In this context, five foundries dominate this industry representing 80% of the global "pure foundry" market and only two companies, TSMC and Samsung, can fabricate the latest generation of chips. In this scenario, Europe is only a minor consumer and producer of chips, and it accounts only for the 9% of international trade on semiconductors despite playing important role through certain steps of the supply chain with companies like IMEC or ASML.⁴⁵

Therefore, the nature of European reliance on external sources exposed the EU to supply chain vulnerabilities and this has enhanced the Europe's need for Strategic Autonomy in this sector.

a. The Context of the Semiconductor Industry

In 2021 semiconductors were the fourth most traded product in the world when considering both imports and exports, ranking only behind crude oil, refined oil, and automobiles in global trade. They play a pivotal role in numerous industries, serving as a crucial foundation for many operations.⁴⁶

Due to the COVID-19 pandemic and the subsequent lockdown measures, there has been a growing scarcity in the global semiconductor supply. This shortage can be attributed to several factors, including increased demand for electronic products, a rapid rebound in the automobile manufacturing

⁴⁴ Sustainability in Semiconductor Industry: Towards Greener Chip Production, Carlos Romero, MRL Consulting Group, 22 May 2023, Available at: https://www.mrlcg.com/latest-media/sustainability-in-semiconductor-industry-towards-greener-chip-production-300690/

⁴⁵ POITIERS, N. F., & Pauline, W. E. I. L. (2022). Fishing for Chips: Assessing the EU Chips Act.

⁴⁶ Why the Chip Shortage Is So Hard to Overcome, Eun-Young Jeong, Dan Strumpf, Wall Street Journal, 19 April 2021, Available at: https://www.wsj.com/articles/why-the-chip-shortage-is-so-hard-to-overcome-11618844905

sector leading to heightened component demand, and bottlenecks in the semiconductor supply chain.⁴⁷

Therefore, the rapid acceleration of digital technology's influence on both individuals and businesses has led to a booming semiconductor market and sales in this industry surged by over 20 percent, reaching approximately \$600 billion in 2021. An analysis conducted by McKinsey & Company, considering various macroeconomic scenarios, suggests that the semiconductor industry could achieve an annual aggregate growth rate averaging between 6 to 8 percent per year until 2030. The outcome of this growth trajectory could be the emergence of a \$1 trillion-dollar industry by the end of the decade.⁴⁸

b. Supply-chain and Manufacturing process

An element to be highlighted is the complexity of supply chains. As a matter of fact, the production of a single chip is a complex process that can imply up to 1500 steps, each of these based on a high number of variables. Moreover, multiple levels of the supply chain are very concentrated, and this leads to very few alternatives for customers. This situation is recognized by the European Commission when it states "This creates the risk of single points of failure in supply chains with companies unable to find second or third source suppliers. For instance, TSMC in Taiwan and Samsung in South Korea are the only foundries capable of manufacturing the most advanced chips (at nodes below 5 nm) and ASML (NL) is the only supplier of advanced Extreme ultra-violet (EUV) lithography equipment".⁴⁹

Moreover, the production of chips takes three major steps: design, fabrication, and assembly. These three steps can often occur in an Integrated Device Manufacturer (IDM), a single firm that sells chips, or can occur in different firms. The production of chips requires many inputs: materials, semiconductor manufacturing equipment, electronic design automation, and core intellectual

⁴⁷ Semiconductors: Key Intermediate Goods for International Trade, Davide Tentori, Alberto Guidi, Italian Institute for International Political Studies, 3 June 2021, Available at: https://www.ispionline.it/en/publication/semiconductors-key-intermediate-goods-international-trade-30709

⁴⁸ The semiconductor decade: A trillion-dollar industry, Ondrej Burkacky, Julia Dragon, Nikolaus Lehmann, McKinsey & Company, 1 April 2022, Available at: https://www.mckinsey.com/industries/semiconductors/our-insights/the-semiconductor-decade-a-trillion-dollar-industry

⁴⁹ European Chips Act: Staff Working document, European Commission, 12 May 2022. Available at: https://digital-strategy.ec.europa.eu/en/library/european-chips-act-staff-working-document

property. Before the production we can find also steps such as the research and development and after we can find steps such as testing and packaging that then lead to the end use of chips.⁵⁰

This structure has evidenced its shortcoming in the last years. also due to shortages that have risen in recent years and have demonstrated the European Union's dependency on a limited number of suppliers. Moreover, considering where these companies are located, it is increasingly clear EU's dependency towards Asia, in particular towards Taiwan and South-East Asia, for manufacturing and towards the United States for the design.⁵¹

Again, the European Commission has been clear in this respect when it has indicated that: "The shortages over the past two years have exposed structural vulnerabilities in highly interdependent and global value chains already weakened by lean production strategies and geopolitical frictions predating the pandemic". Thus, the European Commission has a clear picture of the industry and of European dependencies in this sector and this acknowledgement is the basis for the European Chips Act that we will analyze in the following section.

c. European Union's role in the semiconductor market

Europe currently accounts for less than 10 percent of global semiconductor production, primarily focusing on larger and older-generation chips referred to as "trailing-edge chips" at 22 nanometers and above. Over the years, the EU's share of global chip revenues has declined from 20% in the 1990s to its current level of 10%. An analysis conducted by the European Parliamentary Research Service in 2022 indicates that without swift and substantial investments, the EU's global market share in the semiconductor industry could plummet to below 5%. This would not only jeopardize its industrial competitiveness but also undermine its technological autonomy.⁵³

Nevertheless, according to the European Parliamentary Research Service the EU is home to several world-leading semiconductor organizations and research facilities that play a significant role in the

⁵⁰ Khan, S. M., Mann, A., & Peterson, D. (2021). The semiconductor supply chain: Assessing national competitiveness. *Center for Security and Emerging Technology*, 8(8).

⁵¹ The European Chips Act, 18 April 2023, Available at: https://www.european-chips-act.com/#:~:text=Recent%20shortages%20of%20semiconductors%20have,United%20States%20for%20their%20desig

⁵² European Chips Act: Staff Working document, European Commission, 12 May 2022. Available at: https://digital-strategy.ec.europa.eu/en/library/european-chips-act-staff-working-document

⁵³ Global Semiconductor Trends and the Future of EU Chip Capabilities, Kjeld van Wieringen, European Parliamentary Research Service in the context of the forthcoming European Strategy and Policy Analysis System (ESPAS), October 2022, Available at: https://espas.eu/files/Global-Semiconductor-Trends-and-the-Future-of-EU-Chip-Capabilities-2022.pdf

global semiconductor industry. ASML in the Netherlands stands out as the sole producer of equipment used by giants like TSMC and Samsung to manufacture the smallest chips. Europe also hosts innovative research centers such as Imec in Belgium, Leti in France, and Fraunhofer in Germany, all contributing to the advancement of semiconductor technology. Furthermore, multiple European semiconductor manufacturers specialize in supplying sectors like automotive, healthcare, and industrial equipment, showcasing Europe's diverse and influential presence in the semiconductor landscape.⁵⁴

Also according to the Research Service of the US Congress European firms often excel in specialized niche markets, with a particular focus on the automotive industry, energy applications, and industrial automation. These companies typically have a limited presence in the production of chips for computers and consumer electronics. For the Congressional Research Service Europe's strengths lie in chip architecture, mobile telecommunications, industrial applications, and security chips, where European companies demonstrate robust capabilities. Additionally, Europe leads in the development and production of advanced and specialized semiconductor manufacturing equipment.⁵⁵

Despite some European firms excelling in specialized markets, the EU faces significant shortcomings that explain why it currently holds less than 10% of the global market share. The EU has a limited number of foundries capable of producing the most advanced chips, and it struggles to attract investments from major producers of cutting-edge chips, such as TSMC. Furthemore, despite an innovative system of start-ups and SMEs present in many EU member states, the lack of venture capital for these entities limits their growth prospects, as reported by the Royal United Service Institute: "another key challenge is to ensure a sufficient level of investment in R&D capacity and to provide venture capital for innovative SMEs and start-ups". ⁵⁶

Therefore, as we have underlined the EU currently doesn't play a major role in the supply chain and the Union was impacted by the shortages of recent years and this, together with the shortage of chips

⁵⁴ Global Semiconductor Trends and the Future of EU Chip Capabilities, Kjeld van Wieringen, European Parliamentary Research Service in the context of the forthcoming European Strategy and Policy Analysis System (ESPAS), October 2022, Available at: https://espas.eu/files/Global-Semiconductor-Trends-and-the-Future-of-EU-Chip-Capabilities-2022.pdf

⁵⁵ Semiconductors and the CHIPS Act: The Global Context, Karen M. Sutter, Manpreet Singh, John F. Sargent Jr, US Congressional Research Service, 18 May 2023, Available at: https://crsreports.congress.gov/product/pdf/R/R47558
⁵⁶ EU Semiconductor Futures: Scenarios and Challenges for 2030, Kjeld van Wieringen, Royal United Service Institute, 20 December 2022, Available at: https://rusi.org/explore-our-research/publications/commentary/eu-semiconductor-futures-scenarios-and-challenges-2030

for a sector like the automotive which accounts for numerous jobs in the EU, has led the EU to act in search Strategic Autonomy in semiconductor sector.

In this context, it's crucial to emphasize that many countries are actively competing for subsidies and support in the semiconductor sector. For instance, the United States Congressional Research Service highlights the urgency of the US Chips Act, pointing out that government support for semiconductor policies in East Asia, by countries such as Taiwan, South Korea and Japan, is a significant motivating factor behind the US proposal of its own Chips Act. Similarly, the European Union, influenced by the impact of chip shortages, has also put forth its European Chips Act as part of the global effort to bolster semiconductor manufacturing and secure a competitive position in this vital industry.⁵⁷

d. The tensions between US and China

Before delving into the analysis of the European Chips Act, it is essential to observe the current comparison between the United States and China on semiconductors to better frame the context in which the European Chips Act fits.

In recent years amidst the global market of semiconductors a new battleground has emerged: the fierce rivalry between the United States and China for supremacy in semiconductor chips technology. This unfolding competition encapsulates not only economic ambitions but also complex national security concerns.

Tensions between the US and China have emerged since the Trump presidency. In October 2018 Trump's administration cut off Chinese chipmaker Fujian Jinhua Integrated Circuit from the U.S. suppliers following the U.S. Justice Department indicted the state-backed Chinese firm for stealing trade secrets. From then on US actions against China's chip industry have gone on and on, even the change in powers at the White House, when the presidency switched from the republican Trump to the democrat Biden, didn't change the course of actions. Thus, meaning that both parties in the US recognize the actions against the Chinese semiconductor industry in line with the US national interest.⁵⁸

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⁵⁷ Semiconductors and the CHIPS Act: The Global Context, Karen M. Sutter, Manpreet Singh, John F. Sargent Jr, US Congressional Research Service, 18 May 2023, Available at: https://crsreports.congress.gov/product/pdf/R/R47558

⁵⁸ US targets China over semiconductors, 30 June 2023, Reuters, Available at: https://www.reuters.com/technology/us-targets-china-over-semiconductors-2023-06-30/

As mentioned, Biden administration continued in the efforts of taking actions against China, seeing it as a natural rival on the international stage. With the recent measures taken by the US government Biden aims to block China from accessing the future of semiconductor technology and cutting-edge chips. The effects of these measures will not only damage China's advancements in the military and defense sector but will probably threaten China scientific leadership and perhaps its economic growth.59

While it can be argued that China's rise in recent decades has been astonishing and it has come to a point in which the country can pose a duel to the US, China is massively vulnerable when it comes to technology. Almost all the semiconductors chips that power China most innovative projects are based on US technology. As Chris Miller, the author of Chip War said to the New York Times: "The entire industry can only function with U.S. inputs (..) In every facility that's remotely close to the cutting edge, there's U.S. tools, U.S. design software and U.S. intellectual property throughout the process.". In spite of China's investments in the sector the issue remains real, indeed in 2020 China's producers only supplied 16% of national demand and in April 2023 the country spent more money in importing chips than it did in importing oil.⁶⁰

⁵⁹ An Act of War': Inside America's Silicon Blockade Against China, 12 July 2023, Alex W. Palmer, The New York Times Magazine, Available at: https://www.nytimes.com/2023/07/12/magazine/semiconductor-chips-us-china.html 60 'An Act of War': Inside America's Silicon Blockade Against China, 12 July 2023, Alex W. Palmer, The New York Times Magazine, Available at: https://www.nytimes.com/2023/07/12/magazine/semiconductor-chips-us-china.html

2.2. The European Chips Act and the analysis of the three pillars

The European Union response to the context presented earlier, characterized by semiconductor chips shortages, was first the Joint Declaration on Processors and Semiconductor Technologies made by 22 Member States out of 27.⁶¹

Moreover, in March 2021, the European Union explicitly outlined in the Digital Compass its goal to produce cutting-edge chips, aiming to achieve 20% of global production by 2030.⁶²

Furthermore, in September 2021, the president of the European Commission Ursula Von der Leyen announced intention to present a European Chips Act in its State of Union Address.⁶³

The European Chips Act was finally presented on 8th of February 2022 by the European Commission. The proposed legislation has been divided in three main pillars and has been a real innovation in EU's industrial policy considering the active role that governments would have in it and the amount of public funding that it would involve. The whole understanding of the Chips Act has to bring together the Communication explaining the rationale behind the legislation and the European Strategy, the proposal for a Regulation and Recommendation to Member States.⁶⁴

The European Chips Act is composed by three pillars and is presented by the European Commission on its website as the tool that will enable the EU to address semiconductor shortages and strengthen its technological leadership.⁶⁵

⁶¹ Joint declaration on processors and semiconductor technologies, European Commission, 7 December 2020, Available at: https://digital-strategy.ec.europa.eu/en/library/joint-declaration-processors-and-semiconductor-technologies

⁶² Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions, 2030 Digital Compass: the European way for the Digital Decade, European Commission, 9 March 2021, Available at: https://eufordigital.eu/wp-content/uploads/2021/03/2030-Digital-Compass-the-European-way-for-the-Digital-Decade.pdf

⁶³ State of the Union Address, Ursula Von der Leyen, European Commission, Available at: https://state-of-the-union.ec.europa.eu/system/files/2022-12/soteu 2021 address en.pdf

⁶⁴ European Chips Act, European Commission, Available at: https://digital-strategy.ec.europa.eu/en/policies/european-chips-

 $[\]underline{act\#:} \sim : text = The \%20 European \%20 Chips \%20 Act \%2 C\%20 having, a \%20 Recommendation \%20 to \%20 Member \%20 States.$

⁶⁵ European Chips Act, European Commission, Available at: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/european-chips-act en

a. The First Pillar

The first part of the EU's Chips Act or the first pillar is the "Chips for Europe initiative". This initiative is aimed at bolstering large-scale technological capacity building and innovation in the EU chips ecosystem by fostering European tech leadership, research and development and innovation.

The general goal of the initiative is, as mentioned, to obtain large scale technological capacity building and support research and innovation activities throughout the whole European Union chip value chain. In order to do so the initiative will support, and finance actions organized around five specific operational objectives:

- 1. Building up advanced design capacities
- 2. Enhancing existing and developing new advanced pilot lines across the EU
- 3. Building advanced capacities for accelerating the development of cutting-edge quantum chips
- 4. Setting up a network of competence centers across the EU
- 5. and the 'Chips fund activities', facilitating access to debt financing and equity. 66

The fundings allocated for the "Chips for Europe initiative" are up to 11 billion EUR, to finance technology leadership in design, research, and manufacturing capacities up to 2030.⁶⁷ Indeed, the level of investment and the precision of operational objectives laid out in the EU's Chips Act unequivocally signal the European Commission's and the entire EU's commitment to positioning the growth of European relevance in the semiconductor global markets at the forefront of their pursuit of strategic autonomy. With this estimated investment the EU is demonstrating a resolute dedication to strengthening its semiconductor ecosystem.

The initiative's multifaceted approach underlines a comprehensive strategy aimed at achieving technological leadership across the entire chip value chain. By prioritizing research, innovation, and production within Europe, the EU seeks to close the gap between semiconductor research (the lab) and manufacturing (the fab), fostering self-sufficiency and resilience. This concerted effort signifies that the EU is fully committed to not only bolstering its position in the global semiconductor industry but also ensuring a decisive role in shaping its future, thereby advancing its overarching goal of strategic autonomy in critical technological domains.

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⁶⁶ Guillaume, Ragonnaud. The EU chips act: Securing Europe's supply of semiconductors. 2022.

⁶⁷ Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions - A Chips Act for Europe - Brussels, 8.2.2022 COM(2022) 45 final. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022DC0045

b. The Second Pillar

The second pillar of the European Chips act aims at improving Europe's security of supply. In this respect the Proposal for a Regulation plans to boost projects that will improve EU's security of supply, by attracting new investment and enhancing production capacities in the Europe. With this aim, the second pillar defines two EU's figures and prescribes a range of benefits for the projects that will be considered compatible to these definitions based on a decision of the European Commission.

The two statuses are "integrated production facilities" (IPF) and "open EU foundries" (OEF).

- Integrated Production Facilities are first-of-a-kind facilities dedicated to chip manufacturing.
 These facilities may also encompass design processes or the production of equipment and
 vital components for said equipment. Additionally, they often serve as hubs where various
 supply chain steps are seamlessly integrated.
- 2. Open EU Foundries (OEF) represent unique, first-of-a-kind semiconductor manufacturing facilities that provide production capacity to independent entities, fostering collaborative and diverse chip production.⁶⁸

In order to be eligible to a special status, the projects have to certified as a "first-of-a-kind facility". In the proposal for the Chips Act "First-of-a-kind facility' means an industrial facility capable of semiconductor manufacturing, including front-end or back-end, or both, that is not substantively already present or committed to be built within the Union, for instance with regard to the technology node, substrate material, such as silicon carbide and gallium nitride, and other product innovation that can offer better performance, process innovation or energy and environmental performance.". ⁶⁹

The scope of this concept has been further enlarged by the co-legislators and now refers not only to a new upgraded chip manufacturing facility but also refers to a facility to produce key components or equipment used in chip manufacturing.⁷⁰

It is estimated that projects that will be defined as Integrated Production Facilities and Open EU foundries will have a positive impact on EU's chip value chain, through spillover effects that will go well beyond the company, or the Member State concerned in the project.⁷¹

⁶⁸ Guillaume, Ragonnaud. The EU chips act: Securing Europe's supply of semiconductors. 2022.

⁶⁹ Proposal for a Regulation Of The European Parliament And Of The Council establishing a framework of measures for strengthening Europe's semiconductor ecosystem (Chips Act). Brussels, 8.2.2022. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52022PC0046

⁷⁰ Guillaume, Ragonnaud. The EU chips act: Securing Europe's supply of semiconductors. 2022.

⁷¹ Guillaume, Ragonnaud. The EU chips act: Securing Europe's supply of semiconductors. 2022.

The expansive definition of a "first-of-a-kind facility" within the European Chips Act undoubtedly reflects a groundbreaking approach in European Union industrial policy. The Act's emphasis on fostering innovation, coupled with its commitment to financing projects and facilities not substantially established or committed to be built within the Union, underscores the EU's ambitious aspirations for the semiconductor market. This definition encapsulates a commitment to staying at the forefront of technological advancements in chip manufacturing, covering everything from innovative production techniques to environmentally friendly practices. Indeed, it signifies the EU's resolve to be a pioneer in the global semiconductor industry, with far-reaching ambitions that extend well beyond individual companies or member states.

c. The Third Pillar

The third pillar of the European Chips Act is about creating and setting up a mechanism of coordination between Member States for future crisis response. Also in this case the co-legislators have added new provisions to the Chips Act demanding the Commission to conduct a strategic mapping of the EU's chips sector. This mapping process by the Commission will finally assess the EU points of strengths and of weakness in the global chips market and identify critical infrastructures and products, the needs and dependencies of the main user industries in the EU, the dependencies that the Union has towards foreign technology or foreign providers, the potential impact of crisis measures on the sector and many other specific issues.⁷²

Moreover, part of the budget of the Chips Act will go towards setting up new bodies to better coordinate Europeans interests, such as the European Semiconductor Board (ESB) that will be composed by Member States' representatives, that will discuss over funds allocation. The ESB, that will have a major role also in the third pillar in helping the Commission carrying out the regular monitoring of the chip value chain, is a clear change from Horizon Europe. In Horizon Europe the Member States had no say on which project would have won the funds, instead, in the ESB they will have their space to represent their own national interests.⁷³

The Chips Act establishes a specialized "emergency toolbox" designed to respond to semiconductor shortages. When a crisis emerges, the Commission is empowered to implement a variety of measures.

⁷² GUILLAUME, RAGONNAUD. The EU chips act: Securing Europe's supply of semiconductors. 2022.

⁷³ The European Chips initiative, Industrial policy at its absolute worst, 10 February 2022, Centre for European Policy Studies, Daniel Gros, Available at: https://www.ceps.eu/the-european-chips-initiative-industrial-policy-at-its-absolute-worst/

However, these measures are strictly confined to the sectors severely affected or at risk of disruption due to the semiconductor crisis. The measures are information gathering, priority rated orders, and common purchasing.⁷⁴

d. The financing scheme

Under the Chips Act, the EU has the goal of 43 billion EUR in public and private investments, with this number of resources the Union wants to match the 52 billion dollars that the US spent over 5 years and the 150 billion dollars that China spent over 10 years.⁷⁵

However, it is necessary to go into more detail to examine the funding scheme that the European Chips Act envisions. While the "Chips for Europe Initiative" provides 11 billion EUR in funding, only 3.3 billion EUR will come from the EU budget. Article 3 of the proposed regulation for establishing the European Chips Act specifies that 1.65 billion EUR of funding will come from the Horizon Europe programme, and another 1.65 billion EUR will come from the Digital Europe programme. The remaining 7.7 billion EUR are expected to be invested by the member states, thus increasing the share of public funds, as well as by private companies. ⁷⁶

However, the groundbreaking aspect of the funding mechanism introduced through the Chips Act in the "Chips for Europe Initiative" is the establishment of the Chips Fund. The European Commission, in its communication titled "A Chips Act for Europe," highlighted a noteworthy challenge within the semiconductor industry: a pronounced scarcity of financial resources, encompassing both equity and loans. Specifically, this issue affects start-ups and small to medium-sized enterprises (SMEs), which frequently encounter difficulties in securing adequate market financing for their investments, even when they possess promising growth potential.⁷⁷

Hence, the Commission decided to establish an EU Chip Fund. The Chip Fund consolidates under the same umbrella various existing EU institutions and mechanisms:

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⁷⁴ Guillaume, Ragonnaud. The EU chips act: Securing Europe's supply of semiconductors. 2022.

⁷⁵ Poitiers, N. and P. Weil (2022) 'Is the EU Chips Act the right approach?', Bruegel Blog, 2 June 2022

⁷⁶ Proposal for a Regulation Of The European Parliament And Of The Council establishing a framework of measures for strengthening Europe's semiconductor ecosystem (Chips Act), COM/2022/46 final, European Commission, 8 February 2022, Available at: https://eur-lex.europa.eu/resource.html?uri=cellar:ca05000a-89d4-11ec-8c40-01aa75ed71a1.0001.02/DOC 1&format=PDF

⁷⁷ Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions - A Chips Act for Europe - Brussels, 8.2.2022 COM(2022) 45 final. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022DC0045

- 1. InvestEU Fund, a mechanism built upon the Juncker Plan model, which supports investments made by its financial partners through an EU budget guarantee totaling EUR 26.2 billion for the period 2021-2027.
- 2. The European Investment Bank Group, encompassing both the European Investment Bank and the European Investment Fund, which offers loans and equity investments.
- 3. The European Innovation Council, established as part of Horizon Europe in 2021, aimed at assisting in the transition of research and innovation projects into the industrialization phase.⁷⁸

e. An innovation in the State-aid regime

When it comes to the European Chips Act it is safe to say it represents quite a remarkable innovation in European Industrial Policy. The EU has always been a fierce promoter of the free market and, with the priority of always ensuring a level playing field for every undertaking in the Union, has tried to limit state intervention in the economy with its state aid rules. Indeed, the founding fathers of the European Economic Community envisioned for the newly created community a generalized prohibition on state aid, whom they included in the second pillar of the internal market. The EU state aid rules are described by article 107 to 109 of the TFEU and as Professor Biondi and Professor Righini underline in *An evolutionary theory of EU state aid control* the relevance of these rules is demonstrated by the fact that they have remained largely unchanged since the Treaty of Rome of 1957.⁷⁹

It is important to the goal of analyzing the EU Chips Act, a policy that seeks to boost European development in such a critical market as the one of semiconductors, to underline that State Aid can be channeled to support diverse objectives such as regional development or research and innovation. While state aid serves as a potent instrument for governments to foster economic growth and tackle specific challenges, its application requires stringent oversight to prevent any potential distortions of competition that might detrimentally impact the integrity of the European single market. Nevertheless, the European Chips Act and its funding of "first-of-a-kind facility" is compatible with state aid rules under article 107(3)(c) as the Commission notified in April 2023.⁸⁰

⁷⁸ Semiconductors in Europe: the return of industrial policy, Mathieu Duchâtel, Institut Montaigne, March 2022, Available at: https://www.institutmontaigne.org/ressources/pdfs/publications/europe-new-geopolitics-technology-1.pdf

⁷⁹ Biondi, A., & Righini, E. (2014). An evolutionary theory of EU state aid control. An Evolutionary Theory of EU State Aid Control in A. Arnull & D. Chalmers, The Oxford Handbook of European Law, OUP. p. 1-2

⁸⁰ Commission welcomes political agreement on the European Chips Act, European Commission, Press Release, 18 April 2023, Available at: https://ec.europa.eu/commission/presscorner/detail/en/ip 23 2045

This shift in the European Industrial Policy may also have come thanks to the covid-19 pandemic that changed the landscape of state aid rules. During the pandemic the EU took decisive steps to address the economic impact and support member states in mitigating the effects of the crisis. One of the key measures implemented by the EU was the adoption of a "temporary framework" for state aid.

While the temporary framework was primarily designed to address the immediate challenges posed by the covid pandemic, it is important to underline that it may have influenced subsequent progresses, such as the Chips Act. The European institutions response to the covid-19 pandemic highlighted the need for flexibility in state aid rules during times of systemic challenges or exceptional circumstances that impact different sectors. This recognition may have paved the way for initiatives, like the EU Chips Act, which seek to address specific crises or disruptions in critical industries, such as the semiconductors value chain. The European Chips Act, if successful, could be seen as a further step in adapting State Aid rules to respond to emerging challenges and disruptions in specific sectors. In conclusion, the EU's adoption of the temporary framework during the covid-19 pandemic allowed for more lenient state aid measures to support businesses affected by the crisis, which may have led also to the proposal of the Chips Act.

f. The European Chips Act: a real step towards Strategic Autonomy?

Finally, we must analyze how the European Chips Act fits in the pursuit of European Strategic Autonomy. The ties between Strategic Autonomy and the European Chips Act are clear, indeed ultimately the aim of this initiative is to allow the Union to be more autonomous from other sources in such critical market. As we have observed in the first chapter nowadays chips are the backbone of most of the technology that we use and avoiding shortages of supply that may be caused by their complex value chain is a matter of paramount importance to European strategic interests.

The theme of strategic autonomy can be seen in the nature of the Act, as the observers from the European think tank Bruegel underline, even if the Act may seem only a response to the recent shortages it has been the definitive answer to the challenges posed by the competitiveness of other actors on the international stage and indeed the interdependence that we can observe in high-end technologies.⁸¹

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⁸¹ Poitiers, N. and P. Weil (2022) 'Is the EU Chips Act the right approach?', Bruegel Blog, 2 June 2022

In this context the European Chips Act is an important step forward for the Union in assuring for its member states the supply of semiconductors chips. The investments planed in the first pillar will improve large-scale technological capacity and will surely enhance R&D and innovation in the sector.

Moreover, is the idea of establishing in Europe "first-of-a-kind facility" that will be a real step forward. Indeed, the idea of funding and establishing facilities that will enable companies to produce in Europe final products that aren't currently being produced or will enable to innovate the current manufacturing process of European undertakings is groundbreaking.

Nevertheless, some observers, such as Weil and Poitiers have underlined that the European Chips Act is still an initiative that may contain some risks. Investments in innovative facilities don't always lead to success, as we have observed in the case of China and right now only three companies produce cutting-edge chips: TSMC, Samsung and Intel, and the last two of them still face problems in mastering the latest generation of semiconductors chips. Thus, it is safe to say that success is not guaranteed.⁸²

Nevertheless, even if we consider the risks of these investments from the point of view of industrial policy allocating this number of resources will in any case be a step forward Strategic Autonomy and the Act will constitute a cornerstone of the whole European strategy to achieve it.

⁸² Poitiers, N. and P. Weil (2022) 'Is the EU Chips Act the right approach?', Bruegel Blog, 2 June 2022

3. Medias' responses to the European Chips Act

We now turn to the main question of this thesis, that is "How European and International Media responded to the European Chips Act".

To address it, in the first section we will examine the reception of the Act by some of the most relevant European and International media, showing how they have reported on it, which themes they have placed under evidence, what critics they have raised.

The second section will analyze how media have contributed to the shaping of the public discourse on the Commission's industrial policy.

The "European media" considered are those from countries that are European Union's Member States: more specifically, the media analysed are Politico EU, Le Figaro, El Paìs, Le Monde and Il Sole 24 Ore. As to what concerns "International media", newspapers considered are the Financial Times, the Wall Street Journal and Bloomberg. The search for articles was conducted through the archives of the eight media outlets selected by the researcher. The choice of articles in this sample was motivated by the fact that they represent the majority of comments and judgments expressed by the international press regarding the European Chips Act, highlighting the themes that we will discuss.

European main newspapers have started focusing on the theme of semiconductors mainly after the shortages that the EU has experienced following the Covid-19 pandemic. The topic – which has immediately been of paramount importance for European policymakers, it has therefore gained increasing importance in the press when European societies have started experiencing the scarcity of semiconductors for their economies. In addition to that, since the second semester of 2021 media have started to cover with increasing frequency the topic of a possible European policy proposal on semiconductors in view of the presentation of the European Chips Act by the European Commission, which took place on the 8th of February 2022. The articles considered in the research span, therefore, from the beginning of 2021 towards present days.

3.1. The main themes emerging from the press

When considering the articles analyzed, six main themes emerge concerning the European Chips Act:

- a. the change of paradigm it represents in European industrial policy;
- b. the importance of Commissioner's role;
- c. the European determination to have a greater presence in this sector in the future;
- d. the risks associated with the implementation of the European Chips Act;
- e. the theme of state aid rules and how they are now more flexible;
- f. the comparison with the United States and other international competitors.

a. The change of paradigm in European industrial policy

The first theme that clearly emerges in the press is related to the "paradigm shift" brought about by the European Chips Act in European industrial policy. It must be noted – as it will represent a recurring theme of our analysis – that on this issue the French media – both Le Monde and Le Figaro - have been entirely in favor of this increased European interventionism in the industrial field. Indeed, the European Chips Act was considered by the French media as a fundamental tool in the pursuit of greater European sovereignty, what the French media have referred to is a kind of "Return of the state". 83

More specifically, in the narrative of these two media, the European Chips Act has been seen as a crucial step towards a new Europe. An example of this attitude can be inferred from comments published on the French newspaper Le Monde concerning Intel's upcoming investment in Germany which were supported by EU funds and were considered representing:

"a revolution in the traditional approach to economic policy. It is part of an increasingly embraced European industrial policy. For a long time, the very term was taboo, as (Member States) were deeply attached to the virtues of free competition and wary of State interventions".⁸⁴

On the same note have been the reactions of Le Figaro, which portrayed the Act as a significant step for Europe towards a new industrial policy and emphasized the view that the European Chips Act reflected:

⁸³ Regarding the theme of the "return of the state", reference is made to how the term is defined in the article from Le Monde: « Public », le grand retour du rôle de l'Etat, Ariane Ferrand, Le Monde, 17 May 2022, Available at: https://www.lemonde.fr/idees/article/2022/05/17/public-le-grand-retour-du-role-de-l-etat_6126495_3232.html

⁸⁴ Semi-conducteurs: Intel va investir massivement en Europe, Le Monde, Cecile Boutelet, 16 March 2022, Available at: https://www.lemonde.fr/economie/article/2022/03/16/semi-conducteurs-intel-va-investir-massivement-en-europe 6117715 3234.html

"the new desire for an interventionist industrial policy on a continent that is very open to competition". 85

Both Le Monde⁸⁶ and Le Figaro⁸⁷, therefore, underlined the ongoing change in EU policy by focusing on the contrast between the previous emphasis on free competition that characterized the EU and the current interventionism, even referring to this change as a "change of paradigm".

The change of paradigm that the Chips Act represents for European industrial policy has naturally led to emphasizing how this change is also based on the partial abandonment of some of the principles that the EU has advocated in recent years, such as free competition. On this topic, the Financial Times highlights:

"Europe's desperation to achieve some degree of self-sufficiency in semiconductors is leading to extraordinary measures and a partial burial of principles by the EU". 88

In conclusion, it can be underlined that European and international media have strongly emphasized how the European Chips Act has signaled a profound change of paradigm in European industrial policy approaches, with the partial abandonment of some of the key principles that had underpinned European economic policy in the past.

b. The role of Thierry Breton

In the articles analysed emerged the importance of the key figure behind this change of paradigm, namely the European Commissioner for the Internal Market, Thierry Breton. As a matter of fact, Breton was repeatedly described as the man who, more than anyone else, pushed the European Commission towards this greater interventionism. This is particularly evident from the reading of

⁸⁶ Semi-conducteurs: le plan à 42 milliards d'euros de la Commission européenne, Le Monde, Virgine Malingre, 8 February 2022, Available at: https://www.lemonde.fr/economie/article/2022/02/08/semi-conducteurs-le-plan-a-42-milliards-d-euros-de-la-commission-europeenne 6112749 3234.html

⁸⁵ Semi-conducteurs: l'UE prépare un plan de reconquête à 42 milliards d'euros, Le Figaro with Agence France Presse (AFP), 04 February 2022, Available at: https://www.lefigaro.fr/flash-eco/semi-conducteurs-l-ue-prepare-un-plan-de-reconquete-a-42-milliards-d-euros-20220204

⁸⁷ Semi-conducteurs : l'UE prépare un plan de reconquête à 42 milliards d'euros, Le Figaro with Agence France Presse (AFP), 04 February 2022, Available at: https://www.lefigaro.fr/flash-eco/semi-conducteurs-l-ue-prepare-un-plan-de-reconquete-a-42-milliards-d-euros-20220204

⁸⁸ EU orders subsidies and chips, Chris Nuttall, Financial Times, 9 February 2022, Available at: https://www.ft.com/content/d15b8ab2-597c-427d-a49c-8a39fe4d3854

French newspapers but is a strong element which emerges from the examination of all the articles in this analysis.

Indeed, this paradigm shift and the European Chips Act itself, according to Breton, are driven by the urgency stemming from the recent shortages of semiconductor chips in Europe and the fact that the current global market is characterized by a specific competitive regime. Le Figaro appeared to be largely in line with Breton's opinion on this matter and emphasized the urgency of this change of paradigm:

"A change in doctrine in the United States can deprive European companies of markets or access to certain resources. (...) Europe's repositioning on the international trade stage also implies a real paradigm shift. The Union is preparing to break with a policy firmly oriented toward consumer interests to prioritize the defense of "its" industrial interests (...) "We are not in a normal competitive landscape. There is urgency" insists Thierry Breton, with the goal of building three to five "mega factories" in Europe in mind". 89

This centrality of the role of Breton emerges also in the analysis of non-French media, demonstrating that he has been the key figure behind the Chips Act. For instance, in June 2023, Bloomberg highlighted the confidence of the French Commissioner in announcing the Commission's approval of 8 billion euros in public funds for semiconductor research projects:

"Europe is taking its destiny into its own hands" Internal Market Commissioner Thierry Breton wrote in a blog post. "By mastering the most advanced semiconductors, EU will become an industrial powerhouse in markets of the future"." ⁹⁰

Furthermore, Breton's centrality is also evident in the analysis published by Politico EU on the day of the Chips Act presentation, emphasizing his central role in changing the EU's approach to industrial policy:

"For decades the Commission and its powerful competition department had rebuffed state aid and made free-market competition central to its internal market. With the new Commission and its French juggernaut Internal Market Commissioner Thierry Breton, that's changing. A new industrial strategy

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⁸⁹ L'Europe déploie les grands moyens pour (re)devenir un géant des semi-conducteurs, Le Figaro, Elsa Bembaron, 7 February 2022, Available at: https://www.lefigaro.fr/secteur/high-tech/l-europe-deploie-les-grands-moyens-pour-re-devenir-un-geant-des-semi-conducteurs-20220207

⁹⁰ EU Approves €8 Billion in State Subsidies for Chip Research, Jillian Deutsch, Bloomberg, 8 June 2023, Available at: https://www.bloomberg.com/news/articles/2023-06-08/eu-approves-8-billion-state-subsidies-for-chip-research

was presented last year and the Commission is coordinating large public funding schemes for chips, the cloud, batteries and other technologies.".⁹¹

The central role of Breton's personality in this change of paradigm encompassing a "Return of the State" in European industrial policy is therefore clearly evidenced in both European and International media. More specifically, it is made evident his role on the matter and his 'debating' attitude on past position of the European Commission, traditionally advocating greater protection of the free market.

c. European determination to have a greater presence in this sector

The third theme emerging from the analysis of the papers is the clear European desire to have a more central role in the global semiconductor industry in the future. In fact, almost all articles reviewed strongly emphasized the Commission's aims towards the objective of producing 20% of the world's semiconductors by 2030 contrasting a negative trend. This emphasis is evidenced by the fact that articles often juxtaposed the current global semiconductor production share in Europe - 10% - to what it had 30 years ago, when Europe's share of global production was 40%. Along the same lines, from a non-European perspective, The Wall Street Journal highlighted the fact that both United States and Europe were bigger players in the global semiconductor market in the 1990s, before falling behind countries in East Asia. 92

A second argument justifying Europe's interest in having a greater presence in this market and, at the same time, motivating its determination to take control of the situation was the issue of Europe's dependence on third countries. This is underlined by the Financial Times in its article on Germany's recent investment in the semiconductors market:

"The new investments in Saxony reflect a push throughout Europe to diversify supply chains and reduce over-dependence on chips from Taiwan, now seen as a vulnerability amid rising tensions in the Taiwan Strait". 93

⁹² Europe Aims to Boost Microchip Output With Cash and Relaxed Aid Rules, Kim Mackrael, Daniel Michaels, Wall Street Journal, 8 February 2022, Available at: https://www.wsj.com/articles/europe-aims-to-boost-microchip-output-with-billions-in-new-funding-11644322236

⁹¹ Europe has a chips plan — here are 6 things that could kill it, Laurens Cerulus, Joshua Posaner, Politico EU, 8 February 2022, Available at: https://www.politico.eu/article/european-union-chips-industrial-policy-european-chips-act-semiconductors/

⁹³ Worker shortages and far right threaten east Germany's chip ambitions, Guy Chazan, Financial Times, 7 August 2023, Available at: https://www.ft.com/content/8cb93bc0-d560-d568-8fd3-ffd9b95cbba0

The media narrative clarifies that the European Chips Act well represented Europe's determination to regain significance in this respect. We can take, as an example, an article from Politico EU which stated:

"The EU's goal is to reverse a decades-long slide in Europe's share in the global semiconductor value chain and push it up to 20 percent by 2030 (from 9 percent now)". 94

Another possible example in this case is how El País choose to report on the European Chips Act and what the fundamental goal for Europe was:

"The central objective of the new regulation is for the EU to reach a 20% share of the semiconductor market by 2030". 95

In short, the press, both European and International, were clear in clear pointing out Europe's determination to have a greater presence in the future industrial world and limit its dependencies from specific State and technologies. Also in view of recent shortages.

d. The risks associated with the European Chips Act

The fourth theme emerging from the analysis of media's responses to the Commission's initiative concerns the risks associated with the Chips Act.

Indeed, if we exclude the French newspapers - which generally welcomed it with enthusiasm – in all other European media can be retrieved elements of doubts on the concrete effectiveness of the Act or the highlighting of critical aspects.

It is an example of this more cautious approach the reaction that, on the very day of the official presentation of the Act, came from Politico EU when it stated explicitly that:

"The plan hinges on a series of bets that are far from guaranteed to pay off". 96

⁹⁴ Europe's chips strategy staggers past the starting line, Pieter Haeck, Politico EU, 19 April 2023, Available at: https://www.politico.eu/article/with-its-chips-deal-europe-arrives-only-at-the-start-of-a-global-race/

⁹⁵ Europe's Plan to Enter the 'Chip War', Emilio Garcia, El Pais, Agenda Pùblica, 26 April 2023, Available at: https://agendapublica.elpais.com/noticia/18558/europe-plan-to-enter-chip-war

⁹⁶ Europe has a chips plan — here are 6 things that could kill it, Laurens Cerulus, Joshua Posaner, Politico EU, 8 February 2022, Available at: https://www.politico.eu/article/european-union-chips-industrial-policy-european-chips-act-semiconductors/

The specific risks connected to this 'European bet' – which, in the end, can be summarized in the question "Will the EU succeed where others have previously failed?"- have been singled out in various media. More specifically, in response to this question both European and international newspapers have introduced into the public debate the fact that the Act could be a risky investment for the EU on the basis of clearly indicated elements such as:

- 1) a lack of strategy by the EU;
- 2) the doubt on the effective capability to attract public and private investment;
- 3) the risk of failing in producing cutting-edge chips;
- 4) the risk of facing skills shortages;
- 5) the risk of oversupply;
- 1) The risk linked to the lack of a general EU strategy on semiconductors, an element which risks isolating the Chips Act and leave it without a broader framework, is highlighted, for example, by *Il Sole 24 ore* commenting that:

"No legal act can replace a long-term economic policy plan. The EU must think very carefully about how to establish an industry that will play such a pivotal role in the economy. The Chips Act is the first, and imperfect, step towards a long-term strategy that still needs to be designed."97

Along the same lines, the *El Pais* comments on this theme as follows:

"The microchip strategy is a part of a broader European effort to regain some of the lost industrial glory, which is widely discussed but sees limited progress". 98

2) Additional aspects were those of the effective capability of the Act to attract public and private investment. Explicit, in this sense the Spanish paper *El Pais* when noting that:

⁹⁷ L'importanza decisiva dei semiconduttori - e di avere un piano, Maria Demertzis, Il Sole 24 Ore, 17 October 2022, Avalaible at: https://www.ilsole24ore.com/art/l-importanza-decisiva-semiconduttori--e-avere-piano-AEJGVM9B

⁹⁸ Bruselas lanza un plan de 43.000 millones de euros para producir el 20% de los microchips de todo el mundo, El Pais, Guillermo Abril, 8 February 2022, Available at: https://elpais.com/economia/2022-02-08/bruselas-lanza-un-plande-43000-millones-de-euros-para-producir-el-20-de-microchips-de-todo-el-mundo.html

"There are also doubts regarding the potential private capital that could be attracted to Europe after the immense investment commitments made in the United States and Asia by large companies in the sector. The reality is that major projects have yet to get off the ground in Europe". 99

3) If the risks associated with the Act highlighted in the media were therefore varied, chief among them was the risk that Europe may not succeed in producing cutting-edge chips. In fact, as reported by the Financial Times:

"building a supply chain as complicated as the one needed to produce cutting-edge chips will take years, and success is not guaranteed." 100

In addition to the risk of not succeeding in producing cutting-edge chips, many articles raised a second connected question, that of whether it was necessary to produce such advanced chips in light of the needs of European industry. An example of this being Politico EU underlining how the European automotive industry has a significant demand for chips that are not cutting-edge, but rather larger chips ranging from 14 to 28 nanometers, which are currently the most commonly used for vehicle production. ¹⁰¹ Of a similar tone were the question raised about the kind of chips that Europe aims to produce in articles published in the Financial Times:

"Some critics, including industry executives, have suggested that Europe was wasting taxpayers' money. Far better, they argue, would be to spend the money on expanding capacity of the mature chip technologies that are consumed by Europe's own industries — such as automotive and industrial applications — rather than face the enormous costs of trying to develop the newest chips. The decline of Europe's mobile phone industry had left the continent without obvious customers for advanced chips". ¹⁰²

¹⁰⁰ The global microchip race: Europe's bid to catch up, Lauly Li, Financial Times, 13 December 2022, Available at: https://www.ft.com/content/b31e27fd-0781-4ffd-bb69-9af985abff41

⁹⁹ Europe's Plan to Enter the 'Chip War', Emilio Garcìa, El Paìs, Agenda Pùblica, 26 April 2023, Available at: https://agendapublica.elpais.com/noticia/18558/europe-plan-to-enter-chip-war

¹⁰¹ Europe has a chips plan — here are 6 things that could kill it, Laurens Cerulus, Joshua Posaner, Politico EU, 8 February 2022, Available at: https://www.politico.eu/article/european-union-chips-industrial-policy-european-chips-act-semiconductors/

The global microchip race: Europe's bid to catch up, Lauly Li, Financial Times, 13 December 2022, Available at: https://www.ft.com/content/b31e27fd-0781-4ffd-bb69-9af985abff41

4) The risks connected with the Chips Act include also those connected to skills shortages in Member States. In this respect, the Wall Street Journal points out how TSMC has already encountered difficulties in expanding outside of Taiwan due to skills shortages:

"Skills shortages have been an obstacle to the company's expansion abroad. Last month it said a planned factory in Arizona would miss its target of starting mass production next year, as people with expertise in building semiconductor facilities were in short supply locally. Industry experts had said TSMC is likely to face a similar talent shortage in Japan and Europe too". 103

On those same days, reflecting the importance of the issue, the Financial Times highlighted how the recent increase in support for Alternative für Deutschland in Germany could pose a challenge to German efforts to attract foreign talent:

"The solution will probably be to recruit more workers from overseas. But Germany has had a mixed record on tapping the tech industry's global talent pool. And the rise of the anti-immigrant Alternative for Germany (AfD) party, which is currently polling at 30 per cent in Saxony, could deter many foreigners from choosing to move there". ¹⁰⁴

5) Finally, another risk that emerged from the analysis of the media is the one related to the possibility that the increase in subsidies for semiconductors globally could lead to an oversupply of chips compared to actual global demand:

"Yet with every trade bloc now prioritising chip production, there must be a risk of oversupply once the current crunch dissipates". 105

In conclusion, media have also highlighted risks lined to the Chips Act, suggesting the possibility that European plans may result in failure. In this respect the paper's role can be considered as a contribution to the increased awareness of the general public towards the possible 'downsides' of

¹⁰³ Taiwan's TSMC to Build First European Chip Plant in Germany, Yang Jie, Bertrand Benoit, Wall Street Journal, 8 August 2023, Available at: https://www.wsj.com/articles/taiwans-tsmc-to-build-first-european-chip-plant-in-germany-155e4d8

¹⁰⁴ Worker shortages and far right threaten east Germany's chip ambitions, Guy Chazan, Financial Times, 7 August 2023, Available at: https://www.ft.com/content/8cb93bc0-d560-45e8-8fd3-ffd9b95cbba0

¹⁰⁵ EU orders subsidies and chips, Chris Nuttall, Financial Times, 9 February 2022, Available at: https://www.ft.com/content/d15b8ab2-597c-427d-a49c-8a39fe4d3854

European industrial policy and acting as an alarm for policy-makers in order for them to cover certain specific aspects

e. Concerns over the possibility of State Aid rules

The fifth theme emerging from the media analysis is that of the adaptation of European State Aid rules and the related departure from the Commission's policy traditionally followed. Indeed, considering the EU's established industrial policy focusing on the Single market and competition, the introduction of an Act implying the possibility of relevant public subsidies towards a specific sector, has been immediately considered as a significant change, a departure from traditional public sector behavior.

In this respect there is a clear dichotomy. For some media – and, especially and not surprisingly, Le Monde and Le Figaro - the theme of the increased availability of State Aid is directly linked to what has been termed as a "change of paradigm" in European industrial policy and, more generally, to the trend towards economic 'interventionism' regained by Europe. In this respect it is seen as a positive factor.

On the contrary, others among the media examined put forward doubts about the adaptation of State Aid rules. Along these lines, for example, Politico EU, which highlighted the clear shift from a Commission that centered on the protection of competition to a Commission that placed large public funding schemes at the center of its strategies and initiatives:

"For decades the Commission and its powerful competition department had rebuffed state aid and made free-market competition central to its internal market. With the new Commission (...) that's changing." ¹⁰⁶

Another element of skepticism, concerning State Aids was that of possible development of inequalities between different Member States given the differences in budgetary terms among them.

It was very clear in this direction the Il Sole 24 Ore, which emphasized:

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¹⁰⁶ Europe has a chips plan — here are 6 things that could kill it, Laurens Cerulus, Joshua Posaner, Politico EU, 8 February 2022, Available at: https://www.politico.eu/article/european-union-chips-industrial-policy-european-chips-act-semiconductors/

"The EU's proposed Chips Act comes at a crucial time to strengthen the economic resilience of the Union. However, it is not without risks. (...) Furthermore, since these subsidies will be managed by the Member States themselves, those with fiscal leeway will seize the opportunity to support their own industries, potentially posing a risk to the level playing field among EU countries." ¹⁰⁷

Relaxing State Aid rules has been highlighted by the newspapers in specific cases as a danger that could result in a possible interference with the correct market functioning. A clear example of that put in light by the Sole 24 ore indicating that:

"Funds allocated for subsidies can be counterproductive if they interfere with markets". 108

This general critical aspect was specified concerning an investment of TSMC in Germany, when Politico EU reported that this project and the State Aid that the company will receive from the Berlin's government to support it have faced criticism from competitors:

"Competitors have spoken out against the possibility of State Aid for TSMC, especially if they would only go towards producing less advanced chips that would cater to the needs of the car industry. Giving incentives to "the dominant player, an extremely dominant player in the industry, to come and produce similar types of technology in the same town that a competitor sits ... it doesn't check the boxes of being very pragmatic or balanced," Tom Caulfield, CEO of GlobalFoundries". 109

Moreover, in a more global perspective, the Financial Times where are also reported concerns over a possible "subsidy race" between the US and Europe:

"Acknowledging concerns over a "subsidy race", Margrethe Vestager, the EU competition commissioner, said the semiconductor industry was a special case." 110

Furthermore, The Wall Street Journal, concerned with this new European approach to state aid rules and subsidies commented:

¹⁰⁷ L'importanza decisiva dei semiconduttori - e di avere un piano, Maria Demertzis, Il Sole 24 Ore, 17 October 2022, Avalaible at: https://www.ilsole24ore.com/art/l-importanza-decisiva-semiconduttori--e-avere-piano-AEJGVM9B
¹⁰⁸ L'importanza decisiva dei semiconduttori - e di avere un piano, Maria Demertzis, Il Sole 24 Ore, 17 October 2022, Avalaible at: https://www.ilsole24ore.com/art/l-importanza-decisiva-semiconduttori--e-avere-piano-AEJGVM9B
¹⁰⁹ Taiwan-Germany chips plan risks China's rage, Pieter Haeck, Stuart Lau, Politico EU, 3 August 2023, Available at: https://www.politico.eu/article/taiwan-chips-giant-tsmc-germany-factory-semiconductor-market-eu-china-trade/
¹¹⁰ EU launches €43bn push for chip factories as shortages hit manufacturing, Andy Bounds, Financial Times, 8
February 2022, Available at: https://www.ft.com/content/afbee42b-ba06-49c7-a053-7263e1a4c228

"Some critics of the Chips Act say it risks following past, failed efforts to "pick winners" or replicating other industrial subsidy efforts". 111

In conclusion it is important to emphasize a second interesting dichotomy relevant for the public discourse on European Industrial policy. The European Commissioner for Competition, Margrethe Vestager, considered that the approval of State Aid under the European Chips Act in order to finance 'first-of-a-kind' facilities does not represent an adaptation of State Aid rules but is provided for by the provision of the TFEU that allows State Aid to facilitate the development of certain economic activities.¹¹²

f. The Comparison with the US and other international competitors

The last theme of interest emerging in the examined media has been the comparison carried out between the European Chips Act and measures implemented by other countries, particularly the United States.

The first issue that emerged from this comparison is the funding gap between European and other blocs. More specifically, the comparison depicted that the difference between the EU and the US, as well as with other international competitors, was primarily characterized by the gap between European economic resources and those available to other actors. Media like Politico EU have highlighted how other actors like the US, China, and South Korea can easily outspend Europe. Summarized in the words of Politico EU:

"There's a clear funding gap that the EU will sooner or later have to reckon with". 113

In addition to the financial dimension, the comparison with the United States highlighted by the media also involved a second crucial element, that of the effective administrative capacity of the EU to

¹¹¹ Europe Aims to Boost Microchip Output With Cash and Relaxed Aid Rules, Kim Mackrael, Daniel Michaels, Wall Street Journal, 8 February 2022, Available at: https://www.wsj.com/articles/europe-aims-to-boost-microchip-output-with-billions-in-new-funding-11644322236

¹¹² EU Offers Ambitious Chips Law That May Struggle to Deliver Funds, Jillian Deutsch, Bloomberg, 8 February 2022, Available at: https://www.bloomberg.com/news/articles/2022-02-08/eu-offers-ambitious-chips-law-that-may-struggle-to-deliver-funds?embedded-checkout=true

¹¹³ Europe has a chips plan — here are 6 things that could kill it, Laurens Cerulus, Joshua Posaner, Politico EU, 8 February 2022, Available at: https://www.politico.eu/article/european-union-chips-industrial-policy-european-chips-act-semiconductors/

deploy these resources. In this respect according to both European and non-European media, the lack of a true federal budget for the EU would represent a significant limitation, unlike the United States, which can allocate resources from their federal budget more easily. This theme was strongly emphasized by Bloomberg, for example, which pointed out that the European Commission would have more difficulty financing the European Chips Act:

"Unlike the U.S., the EU does not have a federal budget to suddenly allocate billions toward new initiatives like bolstering its semiconductor sector. With the EU budget already allocated until 2027, the European Commission has had to get creative finding money". 114

It's important to note that the comparison between the European Chips Act and the measures implemented by the United States is made not only because European media like Politico EU emphasized the differences between the two sides of the Atlantic but also because in the United States, the European Chips Act has been perceived by the media as a response, at least in part, to the US Chips Act proposed by the Biden administration. This point was highlighted, for example, by The Wall Street Journal, which referred to the European Chips Act with these words:

"The effort is partly a reaction to the Biden administration's \$53 billion Chips Act". 115

In conclusion, it is evident that both European and international media have placed great emphasis on comparing the European measures for the semiconductor industry with those adopted by other countries. This comparison has emerged as a central theme in the European debate surrounding the Chips Act and, more broadly, in discussions about industrial policy. Through this comparative lens, the limitations of the measures implemented by the European Commission – both in quantitative and qualitative terms - have been brought to the forefront.

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¹¹⁴ EU Faces Funding, State Aid Hurdles With \$48 Billion Chips Act, Jillian Deutsch, Bloomberg, 4 February 2022, Available at: https://www.bloomberg.com/news/articles/2022-02-04/eu-faces-funding-state-aid-hurdles-with-48-billion-chips-act

¹¹⁵ Taiwan's TSMC to Build First European Chip Plant in Germany, Yang Jie, Bertrand Benoit, Wall Street Journal, 8 August 2023, Available at: https://www.wsj.com/articles/taiwans-tsmc-to-build-first-european-chip-plant-in-germany-155e4d8

3.2. Some conclusions on Media's response to the European Chips Act

a. The media positioning on the single issues

On the basis of the analysis carried out it is possible to classify each newspaper on the basis of its attitude towards the Chips Act and, more broadly, in relation to the European Commission's new approach to industrial policy in Europe.

A rating can be attempted on the basis of examination carried out (1 to 5: 1 lowest value; 5 highest value).

Newspapers Positions Analysis

	Chips Act is risky	Commissioner's role approval	State aid rules relaxation approval	Confidence in EU ability to face international competition
Politico EU	4	2	2	2
Le Figaro	1	5	5	5
El Pais	3	3	2	3
Le Monde	1	5	5	5
Il Sole 24 Ore	3	3	3	3
Bloomberg	2	3	2	4
Financial Times	4	2	2	4
Wall Street Journal	2	3	2	3

Source: Evaluation of the researcher on sample of articles from the named newspapers

While the response from the newspapers has been quite varied, some conclusions can be inferred.

a) The French press can be considered as an "outlier": In the first place, it is sufficiently clear what can be termed as an 'aligned approach' of the French media towards the positions of European Commissioner Thierry Breton. It can be observed that the positions of the French Commissioner are supported by the media from his home country. Furthermore, the positions of Le Figaro and Le Monde on a paradigm shift and increased State intervention, facilitated by the relaxation of European State Aid rules, are also in full agreement with

Breton's positions, and in what can be considered a long line of French positioning towards the European Commission in this respect. As a matter of fact, it can be said that they draw from a long French tradition: which has taken the forms of the so-called "*Colbertisme hightech*" and has seen a strong dialogue with the Commission in recent years ¹¹⁶.

This specific attitude of the French media appears even more pronounced when we consider two other major European media outlets from two Member States with a significant tradition in industrial policy such as *El Pais* and *Il Sole 24 Ore*. As a matter of fact, the articles published in these papers maintain a more cautious stance towards the Chips Act, refrain from explicit endorsements, express some doubts, as observed earlier, in relation to the new European industrial strategy.

b) Financial Times and Politico EU as highlighters of risks: When it comes to the risks associated with the European Chips Act, it must be noted that among the newspapers that appear to give more attention to these aspects are the Financial Times and Politico EU. Indeed, these media are among the ones that prominently highlight the possible difficulties associated with the initiative, including the possibility that Europe may struggle to produce cutting-edge chips or that establishing a supply chain in Europe capable of manufacturing cutting-edge chips could take several years.

These risks can be summarized in Politico EU's comment that was previously cited:

"The plan hinges on a series of bets". 117

And in the statement previously cited published by the Financial Times on the risk of oversupply:

"Yet with every trade bloc now prioritising chip production, there must be a risk of oversupply once the current crunch dissipates". 118

¹¹⁶ A form of Colbertism, where the government endeavors to foster the development of leading national companies specializing in cutting-edge technologies. For more: *Le colbertisme high-tech. Économie du grand projet, Paris, Hachette Pluriel, 1992*.

¹¹⁷ Europe has a chips plan — here are 6 things that could kill it, Laurens Cerulus, Joshua Posaner, Politico EU, 8 February 2022, Available at: https://www.politico.eu/article/european-union-chips-industrial-policy-european-chips-act-semiconductors/

¹¹⁸ EU orders subsidies and chips, Chris Nuttall, Financial Times, 9 February 2022, Available at: https://www.ft.com/content/d15b8ab2-597c-427d-a49c-8a39fe4d3854

- c) The critics concentrate on State Aid's relaxation: If we consider the approval of the relaxation of State Aid rules, we can observe that, in contrast to the two French newspapers, the reactions of other media outlets have been much more cautious. As observed earlier, the majority of articles appear rather skeptical about this new approach by the Commission towards State aid regulation, and most newspapers have a rating of 2 on this issue. For example, Bloomberg and The Wall Street Journal do not seem to approve this shift in the European paradigm, possibly perceiving it as too interventionist. Along the same note are the referred articles which highlight the risks linked to the different budgetary capacities and, therefore, the possible implications in terms of inequality growth.
- d) Mix evaluations of Europe's effective capacity to compete: Regarding the confidence that newspapers exhibit in Europe's ability to compete internationally in subsidizing the semiconductor sector, the evaluation indicates that, in addition to the confident French media, also Bloomberg, an American media outlet, appears to have no doubts about Europe's capability to compete on the international scale when it comes to providing subsidies to the chip industry. Other papers have very different positioning. As an example, Politico EU holds a significantly different opinion, with a rating of 1 out of 5, and underlies the concern that other actors may outspend the EU in the semiconductor sector. 119

b. The position of each media on the European Chips Act

After analyzing the individual themes that have emerged from our analysis and the media's positions on them, we can summarize their stances using this table.

Media Positioning

Favorable	Neutral	Doubtful	Critical
Le Figaro	Il Sole 24 Ore	Financial Times	Politico EU
Le Monde	El Paìs	Wall Street Journal	
	Bloomberg		

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¹¹⁹ Europe has a chips plan — here are 6 things that could kill it, Laurens Cerulus, Joshua Posaner, Politico EU, 8 February 2022, Available at: https://www.politico.eu/article/european-union-chips-industrial-policy-european-chips-act-semiconductors/

We can observe that the most critical newspaper is undoubtedly Politico EU, which, as we've noted, ranks the Chips Act as riskier and expresses the belief that Europe is less capable of competing internationally in terms of subsidies. This positioning is rather explicit in the article published on February 8, 2022, which coincided with the official presentation of the Chips Act, significantly titled "Europe has a chips plan — here are 6 things that could kill it". ¹²⁰

We've already mentioned that the two most favorable media are the two French newspapers. Among the more neutral ones, we can certainly include *Il Sole 24 Ore* and *El País*, as well as *Bloomberg*, which, despite having a positive view of the EU's ability to compete with the US and Asian countries, expresses doubts about the relaxation of State Aid rules.¹²¹

Doubts about the Chips Act are even more pronounced in two economic newspapers like The Wall Street Journal and the Financial Times. As mentioned, both these media emphasize the risk that the effective implementation of the European Chips Act could face difficulties and introduce elements such as that of skills shortages. On a more general note, the Financial Times' concerns can be summarized in a sentence from Chris Nuttall's analysis in the English economic newspaper:

"The Chips Act reeks of protectionism". 122

It can, therefore, be concluded that French media have generally been more favorable, especially when compared to other European media such as Italian and Spanish outlets. Conversely, English and American media, like the Financial Times and the Wall Street Journal, appear to have been more skeptical about Thierry Breton's role in advancing the Chips Act alongside a new industrial policy and the relaxation of State Aid rules.

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¹²⁰ Europe has a chips plan — here are 6 things that could kill it, Laurens Cerulus, Joshua Posaner, Politico EU, 8 February 2022, Available at: https://www.politico.eu/article/european-union-chips-industrial-policy-european-chips-act-semiconductors/

¹²¹ EU Faces Funding, State Aid Hurdles With \$48 Billion Chips Act, Jillian Deutsch, Bloomberg, 4 February 2022, Available at: https://www.bloomberg.com/news/articles/2022-02-04/eu-faces-funding-state-aid-hurdles-with-48-billion-chips-act

¹²² EU orders subsidies and chips, Chris Nuttall, Financial Times, 9 February 2022, Available at: https://www.ft.com/content/d15b8ab2-597c-427d-a49c-8a39fe4d3854

3.3. Conclusion on the analysis of media's response

- 1) Due to its dimension, its domain, the parallel initiatives of blocs such as the US, it goes without doubt that The European Chips Act is a fundamental and symbolic component of the current 'return' of European industrial policy. As emerged from the media analysis, it signals Europe's desire to regain a prominent role in strategic industries like semiconductors and contrast dependencies. As such it entails matters of principle such as that of the 'Return of the State'-and operational issues such as those linked to its effectiveness and capacity to activate certain investment dynamics.
- 2) The analysis carried out has highlighted the significant attention that the media both European and International have attributed to the act. In this attention there are significant differences. The media can be easily divided between those who showed enthusiasm for the European initiative on semiconductors from the outset and those who highlighted its limitations and risks. More specifically, among the first ones are those embracing the initiative and the general framework of the "change of paradigm" in European industrial policy. On the side of limitations and risks, the analysis of media coverage of the Act highlighted some crucial themes, ranging from the reasons underlying the Act, the risks associated with its implementation, the level of resources and the international context.
- 3) In conclusion this strong media attention can be considered useful for many reasons:
 - a) It contributes towards enriching the European debate on industrial policy, especially in a crucial period of transition such as the present one where discussions revolve around themes of crucial importance to the citizenry such as the level State intervention, the objective of industrial sovereignty, the adaptation of European State aid rules;
 - b) It increased the public's level of awareness on a strategic theme such as semiconductors and the implications of dependencies with contribute to a greater knowledge of the dynamics of the global economy;
 - c) By signaling some critical points it helps the Commission develop a fuller discourse on the matter and to address the theme in a more holistic and complete way, with attention to certain aspects;
 - d) It helps Member States engaged in the development of parallel national initiatives in the field of semiconductors, indicating areas of concerns (i.e. skills), dynamics to be followed, possible cooperative developments.

Conclusion

In recent years, semiconductors have become increasingly vital for Europe. These small yet essential electronic components have assumed a central role in European industries, spanning from the production of consumer electronics to industrial automation and green energy sectors.

This dissertation has primarily examined the significance of the European Union's pursuit of strategic autonomy. Initially applied within the realm of defense, this concept has since been extended to various other sectors. The importance of achieving strategic autonomy for Europe has been underscored by European leaders and European institutions who have consistently stressed its relevance to the bloc. Furthermore, this thesis has illustrated the critical nature of attaining strategic autonomy by highlighting the main sectors in which the EU is currently pursuing it.

In the subsequent second chapter of the dissertation, following an analysis of the semiconductors context, from developments over the past few decades to the recent crisis, and a brief mention of the ongoing competition in the chip industry between China and the United States and, the focus of the chapter shifted to the European Chips Act, the European Union's recent initiative in the semiconductor market.

The European Chips Act, introduced in February 2022 by Ursula von der Leyen, President of the European Commission, and Thierry Breton, European Commissioner for the Internal Market, has a stated goal of providing the foundation for reinvigorating the EU's presence in the semiconductor market. Its aim is to increase the global market share of chips from the current 8% to 20%. This Act, which was examined in the second chapter, has been dissected for its principal characteristics and the mechanisms it employs to support businesses. It is structured into three main pillars and encompasses vital tools designed to bolster European competitiveness in this market, including the "Chips for Europe initiative.

In the third and final chapter of the dissertation, we have analysed how the media have received and conveyed the European Chips Act to the European public. The analyzed media outlets include Le Monde, El País, Politico EU, Le Figaro, Financial Times, Wall Street Journal, and Bloomberg.

As mentioned in the introduction, examining how the media has reacted to and portrayed the European Chips Act holds significant importance within the framework of the evolving concept of

strategic autonomy in European politics. However, examining how the media has received the European Chips Act is also significant due to the contribution it makes to the European discourse on the new industrial policy. Europe currently finds itself in a transitional period where discussions and public debates on industrial policy are focused on state intervention and the adaptation of European state aid rules.

The media analysis we have conducted has highlighted six common themes present in all the articles from the aforementioned media outlets: the change of paradigm represented by the European Chips Act in European industrial policy, the importance of the Commissioner's role, Europe's determination to have a greater presence in the semiconductor sector in the future, the risks associated with the European Chips Act, the theme of state aid rules and their increased flexibility, and the comparison with the United States and other international competitors.

The media analysis has followed analyzing the positions of each media on the single issues and on the European Chips Act. Our analysis has underlined the deep differences that have characterized the media's response to the Act. As mentioned, the media can easily be divided in those who have shown enthusiasm for the Act and those who have underlined its risks and have exposed their doubts. Between those who have shown enthusiasm for the European Chips Act we have found media who are more in line with an increased interventionism by European Commission in the markets. On the side of those media who have highlighted their doubts we can find the newspapers that have stressed themes such as the risks associated with the Act or the comparison with other initiatives from other actors on the international stage.

As emphasized in the conclusion of the analysis presented in the third chapter, these themes, although diverse, encapsulate the debate surrounding the European Chips Act in Europe quite effectively. Having observed how the media perceived the European Chips Act and how media reactions were not without criticism, this dissertation concludes that the media's response and their way of embracing the Act have been a fundamental cornerstone for a new European industrial narrative. At the same time, the European Chips Act has acted as a catalyst for Europe's industrial ambitions.

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