THE REVITALISATION OF INDUSTRIAL POLICY IN EUROPE

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This paper explores the balance between state intervention and market mechanisms in industrial policy, advocating for a nuanced and pragmatic approach that transcends ideology. Analyzing the EU's historical evolution and comparative case studies of the EU, China, and the United States, this paper highlights the need for strategic state intervention that complements and boosts market dynamics. Policy recommendations include establishing an experimental governance framework, resolving the innovation paradox, and conducting a regulatory review based on subsidiarity principles to promote sustainable economic growth in the EU.

Economic governance in general and industrial policy in particular have long been characterized by a fundamental tension between state intervention and market liberalization. This dichotomy, often portrayed as an irreconcilable choice between Smithian free market principles and mercantilist protectionism, has dominated both academic discourse and policymaking. However, the evidence suggests that such binary framing obscures the path toward effective industrial policy. Instead, current economic challenges require a more nuanced analytical framework that transcends ideological constraints to embrace evidence-based policy formulation.

Recent economic history suggests that neither pure state control nor unfettered market forces alone consistently deliver optimal outcomes. Rather, the most successful development models have implemented strategic state interventions within predominantly market-oriented systems. These hybrid approaches leverage state capacity to address specific market failures while preserving the efficiency and innovation advantages of private enterprise. Recent analyses, such as Dani Rodrik's examination of mercantilist and Smithian economic thought, highlight the importance of balancing state intervention with market mechanisms (Rodrik, 2025).

INTRODUCTION: A REVITALISATION OF INDUSTRIAL POLICY

This paper examines the theoretical foundations and empirical evidence for a calibrated approach where state intervention serves primarily as a catalyst for private investment and innovation. Carefully designed state mechanisms can corral private investment and funnel household savings into productive market activity. This stimulates both the supply and demand sides of the economy, creating conditions conducive to innovation, job creation, and sustainable economic expansion. The principle of subsidiarity, which stipulates that economic matters should be handled by the smallest, lowest, or least centralized competent authority, is key as both a guiding principle and practical constraint. It acknowledges the state's legitimate role in triggering virtuous cycles of economic growth while establishing clear boundaries against any tendency toward expansion

and overreach. The theoretical justification for this approach rests on the principle that private actors alone cannot always establish market efficiency. State intervention can therefore be justified when it reduces transaction costs, mitigates information asymmetries, or aligns private incentives with broader social welfare. However, excessive state involvement risks creating inefficiencies through rent-seeking behavior, cronyism, and misallocation of resources.

Comparative analysis of development trajectories in China, the EU, and the United States highlights the practical consequences of different calibrations between state and market forces. This paper's findings suggest that the optimal role of the state is neither minimal nor maximal but calibrated – intervening precisely where market failures occur while consciously preserving space for private sector dynamism. This balanced approach offers a pathway to harness the efficiency advantages of market mechanisms while addressing their inherent limitations, ultimately producing superior outcomes for both economic growth and social welfare.

This paper is structured as follows: chapter 2 examines the theoretical foundations of industrial policy. Chapter 3 explores the historical evolution of industrial policy in the EU and its weaknesses. Chapter 4 presents comparative case studies of the EU, China, and the United States. Chapter 5 discusses the implementation of a balanced approach in the EU context and offers policy recommendations. Chapter 6 concludes.

THEORETICAL FOUNDATIONS: COMPETING PARADIGMS

This section explores the theoretical foundations of industrial policy and examines competing paradigms.

The debate surrounding the appropriate role of the state in economic development and industrial policy has been central to economic thought since its inception. State-led approaches posit that strategic government intervention is essential to overcome market failures, coordinate investment, and accelerate industrialization processes (Rodrik, 2008). This perspective emphasizes the state's capacity to mobilize resources, target strategic sectors, and protect infant industries until they achieve international competitiveness. The underlying assumption is that market mechanisms alone are insufficient to generate optimal development outcomes.

In contrast, market-oriented models, drawing from classical and neoclassical traditions, prioritize private initiative, price signals, and competitive dynamics as the primary drivers of efficient resource allocation and innovation. This paradigm, articulated by scholars from Adam Smith to Friedrich Hayek and Milton Friedman, contends that state intervention typically distorts market signals, creates inefficiencies, and enables rent-seeking behavior that ultimately undermines economic performance (Friedman, 1962). The core assumption is that decentralized decision-making by private actors responding to market incentives will generate superior outcomes than centralized planning or extensive state direction.

Yet this dichotomous framing – pitting state intervention against market mechanisms as mutually exclusive approaches – represents a false choice that fails to capture the complex interplay between public and private actors. Indeed, markets and states ought to find a dynamic equilibrium, becoming complements rather than substitutes. Well-functioning markets require effective states to establish and enforce property rights, maintain competitive conditions, provide public goods, and address market failures. Simultaneously, effective state intervention depends on market mechanisms to generate information, create incentives for efficiency, and drive innovation.

The most successful economies have not adhered rigidly to either extreme side of the spectrum but have instead developed context-specific blends of state capacity and market dynamism. Taiwan combined strong state direction in strategic sectors with increasingly market-oriented policies as industries matured (PWC, 2024). Singapore paired state-owned enterprises and

sovereign wealth investment with the attraction of multinational corporations and competitive market conditions (Temasek, 2025). The United States, despite its market-oriented rhetoric, has always employed substantial state support for research and development, defense-related innovation, and periodic interventions during economic crises (Council on Foreign Relations, 2022).

Moving beyond ideological constraints requires recognizing that the relevant question is not whether the state should intervene through industrial policy, but how, when, and to what extent. This more nuanced approach focuses on identifying specific market failures, designing targeted interventions to address them, and – vitally – establishing institutional checks and balances to prevent state capture or overreach.

BACKGROUND: HISTORICAL EVOLUTION OF INDUSTRIAL POLICY IN THE EU

This section examines the historical evolution of industrial policy in the EU and explores the strategic vulnerabilities resulting from its approach.

The trajectory of European industrial policy since the post-war period has evolved with the bloc's economic and political priorities and institutional architecture (Tagliapietra and Veugelers, 2023). In the immediate aftermath of World War II, industrial policy emerged as a cornerstone of European reconstruction efforts. The establishment of the European Coal and Steel Community (ECSC) in 1951 represented the first major supranational industrial policy initiative. It targeted strategic sectors such as coal, steel, and electricity to modernize production, foster economic integration, and prevent future conflicts between member states. This vertical approach to industrial policy exemplified the interventionist and sectoral tradition that would influence early European economic coordination. Aiming at combining technocratic authority with democratic oversight, the ECSC's governance structure established a template for subsequent European institutions and illustrated how industrial policy could serve both economic and political objectives. The Treaty of Rome of 1957 further institutionalized industrial coordination and competition policy, establishing a 'European compromise' between French planning traditions and German ordoliberalism (Warzlouzet, 2019).

The 1980s and early 1990s saw a shift towards market liberalization. The Single European Act of 1986 prioritized the completion of the internal market, with industrial policy reframed primarily as removing barriers to trade and enhancing competition. This period reflected the rise of a horizontal approach to industrial policy. This approach focuses on creating positive (or intended to be positive) framework conditions for all firms rather than targeted sectoral support.

The Maastricht Treaty of 1992 recognized industrial policy in Article 130, yet defined it narrowly as ensuring "the conditions necessary for the competitiveness of the Community's industry." This institutionalized the focus on competitiveness in European industrial policy, prioritizing innovation, research, and entrepreneurship whilst eschewing direct state intervention in specific sectors. The subsequent Lisbon Strategy of 2000 further entrenched this approach by aiming to transform the EU into "the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion".

The 2008-09 financial crisis led to a reassessment of the role of industrial policy. The European Commission's 2010 communication "An Integrated Industrial Policy for the Globalisation Era" signaled renewed interest in strategic industrial coordination, though still primarily horizontal measures (EUR-Lex, 2010). The subsequent Europe 2020 strategy maintained the focus on innovation and knowledge transfer but acknowledged the need for more active policies to address deindustrialization concerns (European Commission, 2010).

A significant paradigm shift has occurred since 2015, marked by growing recognition of the importance of the green transition, global competitive pressures, technological disruption, and geopolitical realignments. The Commission's 2017 "New Industrial Policy Strategy" acknowledged the need for a more comprehensive approach, while maintaining commitment to competition principles (European Commission, 2017). This evolution accelerated with the COVID-19 pandemic and heightened geopolitical tensions, which exposed vulnerabilities in European supply chains and technological dependencies. Initiatives such as the European Green Deal Industrial Plan and the Strategic Autonomy Agenda entrench the paradigm shift (European Commission, 2023). These frameworks acknowledge the limitations of purely horizontal approaches and signal a more interventionist stance on strategic sectors, technological sovereignty, and critical infrastructure.

This historical evolution reveals two persistent tensions in European industrial policy. On the one hand, the tension between supranational coordination and national sovereignty; on the other hand, the tension between market-focused approaches and state interventions. Any discussions of the future orientation of the EU's industrial policy must be understood against this complex institutional legacy.

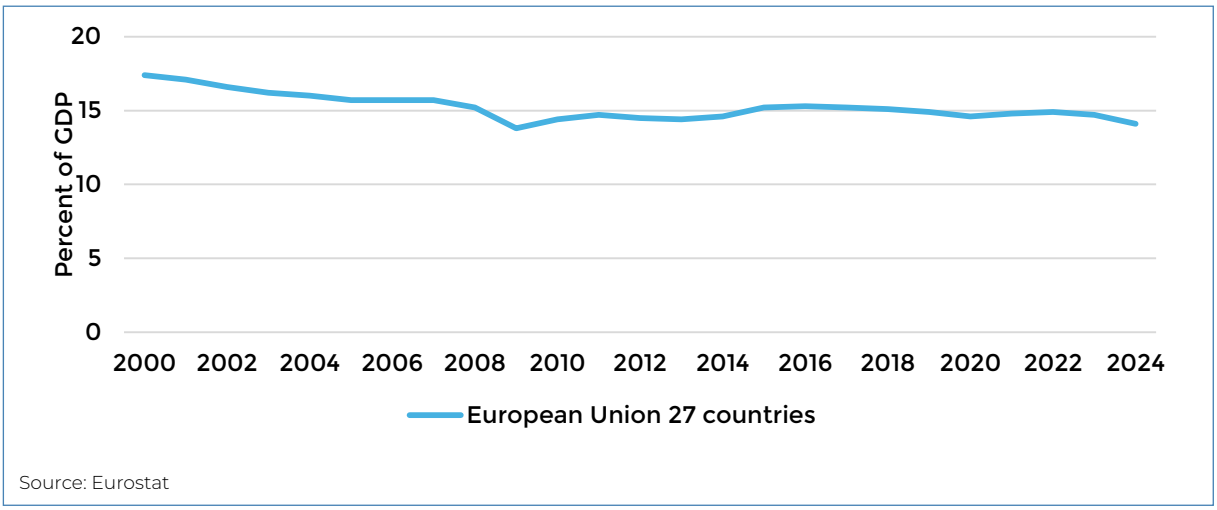
Europe's Strategic Vulnerabilities and Dependencies

The historical trajectory of European industrial policy has culminated in structural vulnerabilities that represent fundamental threats to Europe's sovereignty, social stability, and geopolitical positioning in an increasingly competitive and fragmented global order.

Perhaps the most immediate consequence of Europe's approach to industrial policy has been the relative decline in manufacturing capacity. Between 2000 and 2024, manufacturing's share of EU gross value added decreased from 17.4% to approximately 14.1% (Eurostat, 2025) as can be seen in Figure 1. The loss of manufacturing capacity is particularly acute in strategic sectors such as semiconductors, advanced materials, and (ironically enough, given Brussels' policy focus) green technologies such as solar panel components. For example, the European market share in global semiconductor production fell from 24% in 2000 to below 10% in 2023 (Kearney, 2022).

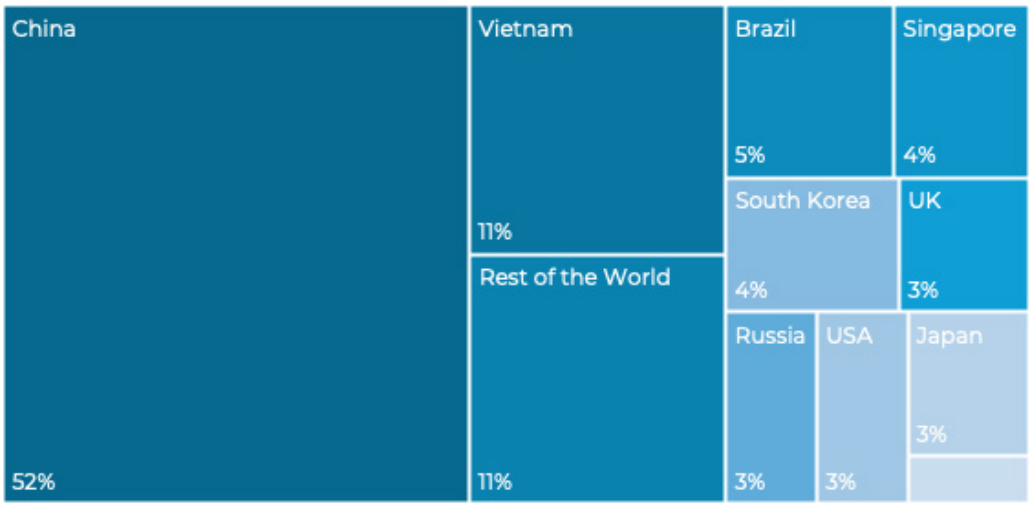
At the same time, Europe lags in innovation. This is especially true in frontier technologies with transformative economic potential. Despite substantial investment in research frameworks, European firms have struggled to translate scientific excellence into commercial leadership in areas such as artificial intelligence, quantum computing, biotechnology, and advanced energy

FIGURE 1
MANUFACTURING AS SHARE OF TOTAL VALUE ADDED IN EUROPE



Source: Eurostat

FIGURE 2
SHARE OF EU IMPORTS VALUE OF PRODUCTS WITH HIGH DEPENDENCIES



Source: European Commission

systems. The European Innovation Scoreboard highlights that, despite pockets of excellence, the EU runs behind the United States, Japan, and China in key innovation metrics. Such metrics include venture capital investment, technology diffusion, and high-growth innovative enterprises (EU, 2024). This 'innovation paradox' – i.e., strong fundamental research but weak commercialization – reflects the limitations of a regulation-focused approach that leaves insufficient room for private sector initiatives and strategic industrial vision.

The current paradigm has also resulted in strategic dependencies in supply chains and technologies, which became apparent in recent years. For example, semiconductor shortages during the COVID-19 pandemic interrupted automotive manufacturing across the continent, with major European carmakers suffering production halts and substantial revenue losses due to reliance on Asian suppliers (Radnik, 2024).

The 2022 energy crisis following Russia's full-scale invasion of Ukraine similarly highlighted Europe's energy dependency, with many member states facing price shocks and supply insecurity due to their reliance on Russian gas (Bruegel, 2025). This vulnerability stemmed from industrial and energy policies that de-linked market-based approaches from the necessary resilience and security considerations of an international power. The crisis also highlighted dependencies on critical minerals essential for green transition technologies. A 2021 Commission assessment identified 137 products in strategic sectors where the EU faces high external dependencies (see Figure 2), with 34 products deemed "potentially more vulnerable" – a result of industrial policy neglecting strategic autonomy for decades (European Commission, 2021).

Economic, Security, and Climate Dimensions of Industrial Policy Shortcomings

The strategic vulnerabilities and dependencies have consequences for Europe's economy, security, and climate ambitions.

In terms of the economy, the shortcomings in industrial capacity and innovation affect European labor markets. Technological disruption and global competition have disproportionately hit regions dependent on traditional manufacturing. For example, the decline of the steel industry in Wallonia, Belgium, saw unemployment rates reach up to 30% in former industrial centers like Charleroi und Liege, while Wallonia overall shows rates twice as high as the Flanders region (Kapitsinis et al., 2010). Similarly, as Europe's transition to electric vehicles ac-

celerates, traditional automotive manufacturing regions face disruption. Studies from the European Association of Automotive Suppliers estimate that the shift to EVs could affect up to 501,000 jobs across the EU's automotive supply chain, with component manufacturers in regions like Piedmont in Italy and Baden-Wuerttemberg in Germany particularly vulnerable due to their specialization in internal combustion engine technologies (Strategy&, 2021). The skills mismatch between available workforce capabilities and emerging technological requirements exacerbates these challenges. In Germany's Ruhr Valley, despite extensive retraining programs, former coal and steel workers have struggled to transition to knowledge economy roles (Institute for Work and Technology, 2021).

The structural vulnerabilities and dependencies have significant implications for Europe's security and strategic autonomy. In telecommunications infrastructure, for instance, concerns about security risks led to restrictions on Huawei's participation in European 5G networks, yet these decisions came after years of market penetration and created costly retrofitting challenges for many operators (Institut Montaigne, 2019). The semiconductor shortage revealed how dependent European defense manufacturers are on non-European chip supplies for military applications, with some weapons systems facing production delays due to components manufactured exclusively in Taiwan and South Korea (War on the Rocks, 2023). The Ukraine conflict has illustrated how commercial technologies can become geopolitical leverage points. When Elon Musk threatened to withdraw Starlink satellite services from Ukraine in 2023, it highlighted Europe's limited autonomous capabilities in space-based communications that are critical in crisis scenarios (Shalal and Roulette, 2025). In cloud computing, European military and intelligence agencies increasingly rely on commercial providers, raising questions about data sovereignty when many of these services are governed by foreign legislative frameworks such as the US CLOUD Act, which can compel data access regardless of storage location (Frank, 2024; Frost & Sullivan, 2022; Janjeva and Sullivan, 2021).

Finally, the EU cannot achieve its climate ambitions, embodied in the European Green Deal, without industrial transformation at unprecedented scale and speed. The commitment to reduce emissions by at least 55% by 2030 and achieve climate neutrality by 2050 requires a fundamental restructuring of energy-intensive industries that employ over 3.2 million workers across the EU (Policy Department for Economic, Scientific, and Quality of Life Policies Directorate-General for Internal Policies, 2020). The current EU approach has created a competitive disadvantage against less carbon-constrained international rivals. Without a systemic change, this competitive disadvantage will further worsen. The current policy framework is unable to ensure that decarbonization results in industrial renewal rather than further deindustrialization. For instance, despite substantial renewable energy deployment, Europe has lost significant market share in solar panel manufacturing to China. From producing over 26% of global solar panels in 2008, European production fell below 2% by 2023, creating a paradoxical situation where Europe's climate transition increases dependencies on imported green technologies (Renewable Energy World, 2009; Photovoltaic Power Systems Technology Collaboration Programme, 2024).

These multifaceted challenges cannot be addressed through an ideological imposition or an ideological clash. They necessitate a pragmatic approach to industrial development, strategic autonomy, and economic sovereignty – one that learns from successful interventions in other economies whilst respecting the unique institutional setup and values of the European project.

CASE STUDIES: EMPIRICAL EVIDENCE

This section presents comparative case studies, offering insights into different approaches to industrial policy in China, the United States, and the EU.

EU: Bureaucratic Constraints and Innovation Challenges

The EU presents a compelling case study of how bureaucratic complexity and regu-

latory fragmentation can impede effective economic development and innovation. The EU possesses many prerequisites for successful economic development: a well-established rule of law, sophisticated educational systems, extensive research capabilities, and substantial household savings. Yet, persistent barriers to capital formation and deployment, along with burdensome and sometimes excessive regulation, have contributed to chronic underinvestment in key areas and limited the region's innovative capacity compared to global competitors.

Capital market fragmentation represents a fundamental challenge. Despite decades of integration efforts, European capital markets are predominantly national in orientation, with limited cross-border investment flows. The Capital Markets Union aimed to address this fragmentation but has achieved only incremental progress. As a result, European firms are heavily dependent on bank financing rather than capital markets, limiting growth opportunities for innovative companies and constraining the efficient allocation of capital across the single market (EIB, 2014).

The stringent regulatory environment, while designed to ensure market stability and consumer protection, comes at the cost of less market dynamism as illustrated by the 'innovation paradox'. Overlapping competencies between EU and national authorities generate compliance complexity that disproportionately burdens smaller firms and investors. According to estimates by the International Monetary Fund, internal barriers within Europe are comparable to imposing a 45% tariff on manufacturing and a 110% tariff on services (IMF, 2024).

The NextGenerationEU recovery package represents the most ambitious attempt to address these challenges through coordinated investment at the European level. With 750 billion EUR in grants and loans, it aims to drive post-pandemic recovery while accelerating green and digital transitions (NGEU Tracker, 2025). This program highlights how EU structures can implement subsidiarity and catalytic state principles: directing authority over resources to the most appropriate administrative level while leveraging public investment to mobilize private capital in strategic sectors. The early implementation has revealed challenges in administrative capacity, coordination across governance levels, and balancing speed with accountability. At the end of the day, the program's ultimate effectiveness will depend on whether it can catalyze private investment rather than simply increasing public expenditure.

These experiences demonstrate that even well-intentioned regulations can hinder innovation and economic development when overly complex or inflexible. The EU case shows that institutional stability alone is insufficient. Instead, the EU needs to leverage subsidiarity and the catalytic state approach to ensure that decisions are made at the most appropriate level and that the government acts primarily as an enabler. This highlights the need for a balanced industrial policy approach, where targeted state intervention complements private sector dynamism to foster innovation and growth while reducing regulatory burdens. This would leverage the EU's coordination capacity while maintaining decision-making at appropriate governance levels to enhance both economic stability and innovation potential.

China: The Limits of State-Driven Development

China's development trajectory provides instructive insights into the potential and limitations of state-driven economic development. While initial growth was unprecedented, recent experiences reveal diminishing returns and mounting challenges with excessive state involvement.

The initial successes of China's approach were remarkable. State-directed investment in infrastructure, strategic industries, and export-oriented manufacturing transformed a predominantly rural economy into the world's manufacturing center within a generation (Jigang, 2020). The state's ability to mobilize resources at scale, and coordinate complementary investments, enabled rapid industrialization and poverty reduction at levels that are unmatched in modern economic history. This model relied heavily on state-owned enterprises to channel resources toward strategic priorities, while gradually introducing some market mechanisms to improve allocative efficiency and incentivize productivity improvements.

However, the sustainability of China's investment-led growth model has encountered mounting challenges, including declining economic efficiency and growing systemic costs (Rodrik, 2025). Economic efficiency has declined markedly, with returns on investment falling and capital-output ratios rising. Total factor productivity growth has likewise decelerated, suggesting that continued expansion has become increasingly dependent on factor accumulation rather than efficiency improvements. This efficiency decline has been accompanied by growing systemic costs. Local government debt has expanded dramatically, particularly when including various off-balance-sheet financing vehicles. Corporate debt levels have similarly escalated, with particularly high concentrations in state-owned enterprises that often receive preferential financing despite lower profitability than their private counterparts. These debt dynamics have created financial stability concerns and constrained fiscal space for addressing emerging challenges.

Demographic headwinds further complicate China's development trajectory (China Power, 2023). These can be traced back partly to China's one-child policy – an extreme example of state intervention in a highly intimate area of life. The working-age population has begun to contract, eliminating the demographic dividend that supported earlier growth. Rising old-age dependency ratios will increase pension and healthcare costs while reducing savings rates.

China's experience demonstrates that while strategic state direction can accelerate early-stage development, the complexity of modern economies ultimately exceeds the information-processing and coordination capabilities of centralized systems. As economies mature, the innovative capacity and allocative efficiency of market mechanisms become increasingly important for sustained growth.

United States: Selective Intervention with Private Leadership

The United States exemplifies a contrasting model of selective state intervention within a predominantly market-oriented economy, particularly effective in frontier technologies and innovation ecosystems.

The Defense Advanced Research Projects Agency (DARPA) exemplifies this model of public research with private commercialization (DARPA, 2014). DARPA has pioneered high-risk, high-reward research in areas ranging from computing and communications to materials science and robotics, and combines ambitious technical goals, project-based funding, and organizational flexibility. Crucially, DARPA does not itself commercialize innovations but instead creates knowledge spillovers that private firms subsequently develop into commercial applications. For example, the internet, GPS, and voice recognition technology all emerged from DARPA-funded research before being commercialized by private enterprises. These partnerships leverage complementary capabilities: public resources for basic research, risk pooling, and coordination; private expertise in product development, manufacturing scale-up, and market deployment.

The US approach is further characterized by implementation flexibility. Federal agencies received substantial authority to adapt programs based on market response and technological developments, allowing for rapid policy learning without requiring new legislation for each adjustment (U.S. Department of Health and U.S. Department of Defense, 2021; U.S. Department of State, 2024). This approach contrasts with the often more rigid program structures in European funding instruments (EU, 2025).

Additionally, the United States has developed sophisticated innovation ecosystems that connect research, capital, and entrepreneurial talent (Carnegie Endowment for International Peace, 2024). These ecosystems, exemplified by Silicon Valley, feature dense networks between research universities, venture capital, established firms, and start-ups. Public policy supports these ecosystems through research funding, intellectual property protections, and financial regulations, but ultimately coordination is market-based rather than administratively directed.

The US model has succeeded in creating conditions for long-term innovation while maintaining implementation flexibility to adapt to changing technological and market circumstances. By focusing public intervention on areas of clear market failure such as basic research, network in-

frastructure, and coordination challenges while preserving private sector leadership in commercial development and deployment, this approach has fostered innovation across multiple technological waves. The result has been not only economic growth but also the development of new industries and business models.

Taken together, these case studies demonstrate the necessity of a balanced approach to industrial policy. The EU's bureaucratic complexity, China's challenges with state-driven inefficiencies and the United States' success with selective intervention all highlight the importance of strategic state involvement that enables innovation and economic growth without stifling market mechanisms.

Taken together, these case studies demonstrate the necessity of a balanced approach to industrial policy. The EU's extensive regulatory framework provides a foundation that can address market distortions and failures effectively if used cautiously. China's experience shows that high growth is possible through state-driven industrial policy, but excessive state control ultimately risks undermining the foundations of sustainable development. The United States demonstrates how collaborative partnerships between government and industry can develop new sectors and transform existing ones. The optimal model positions the state as a catalyst and mediator that corrects market failures rather than attempts to control market activities. This balanced approach leverages the targeted state involvement necessary to enable innovation and economic growth without stifling the market mechanisms that drive efficiency and adaptation.

DISCUSSION: A BALANCED APPROACH

This section discusses the implementation of a balanced approach to industrial policy in the EU context, focusing on the role of the state as a catalyst. It also outlines policy recommendations for industrial policy revitalization, focusing on experimental governance, innovation pathways and regulatory review.

Defining the Catalytic Function of the State

Optimal state intervention should be catalytic, facilitating and accelerating economic processes while preserving private sector agency and dynamism.

De-risking private investment is a core function of the catalytic state. Private markets systematically underinvest in activities characterized by high uncertainty, long time horizons, or significant positive externalities. Strategic guarantees and risk-sharing mechanisms can address these market failures without displacing private decision-making or assuming direct operational responsibilities. For example, public-private partnerships and innovation grants can accelerate research and development timelines whilst ensuring that companies maintain commercial focus and market responsiveness.

Regulatory certainty constitutes another dimension of effective de-risking as policy uncertainty increases risk premiums and deters long-term investment. The catalytic state provides clear, stable, and predictable regulatory frameworks that give private actors the necessary confidence to make confident long-term commitments. This includes not only formal regulations but also consistent enforcement practices, transparent decision-making processes, and appropriate transition periods when regulatory changes are necessary.

Finally, the catalytic state focuses on triggering virtuous growth cycles. Effective intervention initiates processes that eventually become self-sustaining. This requires designed withdrawal strategies from the outset of any intervention, with clear milestones for reducing state involvement as private capabilities develop. Taiwan's semiconductor industry development offers an instructive example: initial state investment in research infrastructure and technical education created conditions for private semiconductor firms to emerge, which subsequently drove continued development with progressively reduced state direction (PWC, 2024).

The Principle of Subsidiarity as Governing Framework

The catalytic approach to state intervention requires a governing framework to determine when, where, and how the state should act. The principle of subsidiarity provides precisely this by stipulating that matters should be handled by the smallest, lowest, or least centralized competent authority (United Nations, 2025). Conceptually, subsidiarity rests on two complementary premises: efficiency and liberty. The efficiency argument recognizes that decentralized decision-making typically leverages superior local knowledge, enables more rapid adaptation to changing circumstances, and facilitates experiments that generate policy learning. The liberty argument emphasizes that decisions affecting individuals and communities should remain as close as possible to those affected, preserving agency and self-determination while preventing unnecessary concentrations of power.

In industrial policy, subsidiarity suggests that market mechanisms should be the default coordination system wherever they function effectively, with state intervention limited to addressing market failures. Even when market failures justify intervention, subsidiarity indicates that the intervention should occur at the lowest effective level and through the least intrusive means possible. The concept's emphasis on context-sensitivity and pragmatic problem-solving thus aligns with the recognition that complex economic challenges require nuanced approaches rather than ideological rigidity. By focusing the debate on the appropriate level and form of intervention rather than simplistic more-versus-less government framing, subsidiarity facilitates more productive policy dialogue.

Policy Recommendations

As outlined earlier, the EU presents a distinctive backdrop for implementing a balanced industrial policy approach. As a result, three concrete policy recommendations emerge.

1. Establish an Experimentalist Governance Framework for Strategic Sectors

The EU should establish an experimentalist governance framework for strategic industrial sectors, drawing on principles developed by Charles Sabel and colleagues (Sabel and Zeitlin, 2012). This approach would establish clear outcome-based objectives at the European level whilst preserving implementation flexibility for member states and regions.

At its core, this framework would transform member states into policy innovation laboratories operating within coordinated parameters, safeguarding competition principles. Central to this approach would be structured peer review mechanisms facilitating systematic knowledge exchange between regulatory authorities, industry representatives, and research institutions. Rather than prescriptive requirements that stifle innovation, the framework would emphasize performance standards that provide regulatory certainty for long-term research and development investment whilst maintaining essential consumer and environmental safeguards.

The principle of subsidiarity would serve as both a theoretical foundation and practical constraint, acting as a vital counterweight to state expansion and potential crony capitalism. This would ensure that EU institutions focus exclusively on areas where European-level action delivers demonstrable added value, primarily in creating a level playing field, establishing common standards, and coordinating cross-border initiatives. National and regional authorities would retain primary responsibility for context-specific implementation, leveraging their proximity to local industrial ecosystems and specialized knowledge.

This balanced approach would harness Europe's institutional strengths while addressing its implementation weaknesses. By recognizing the state as a catalyst rather than a director, with private entities as the primary actors, it creates an industrial policy framework that sets strategic direction and provides initial momentum whilst preserving market dynamism and preventing bureaucratic overreach.

2. Resolve the Innovation Paradox Through Integrated Development Pathways

The EU should address its innovation paradox through an integrated approach spanning

the entire development pipeline. Acting as a catalytic state, the EU should transform the European Innovation Council into a robust mission-oriented innovation agency, strategically coordinating efforts to overcome market failures in priority areas. This approach recognizes that innovation challenges transcend national boundaries while respecting that implementation often works best at local levels and is driven by private actors.

Simultaneously, the EU should implement targeted instruments to shield its innovative industries from market-distorting practices and state-subsidized competition from other countries. This could include stricter enforcement of product safety standards and provisions to prevent illicit trade. Finally, the EU should develop stronger commercialization pathways by establishing enhanced technology transfer mechanisms at the European scale.

3. Conduct a Comprehensive Regulatory Review Based on Subsidiarity and Catalytic State Principles

To enhance competitiveness and innovation, the EU should conduct a comprehensive review of existing regulations based on subsidiarity and catalytic state principles. This review aims to identify and revise excessive regulations that hinder economic growth and private sector dynamism.

The subsidiarity principle will guide the review process, delegating regulations to national or regional levels where appropriate. The goal is to create a regulatory environment that provides clear, stable, and predictable frameworks, enabling private actors to make long-term investments and take calculated risks.

CONCLUSION

This paper explores the complex interplay between state intervention and market mechanisms in the context of industrial policy, arguing that a binary choice between Smithian free market principles and mercantilist protectionism is overly simplistic. Instead, we advocate for a nuanced, evidence-based approach that leverages the strengths of both state and market to foster innovation, job creation and sustainable economic growth.

The historical evolution of industrial policy in the EU and comparative case studies highlight the need for a balanced strategy that addresses the EU's strategic vulnerabilities and dependencies. The proposed policy recommendations, i.e., establishing an experimental governance framework for strategic sectors, resolving the European innovation paradox through integrated development pathways, and conducting a comprehensive regulatory review based on subsidiarity and catalytic state principles, provide a roadmap for revitalizing European industrial policy. These recommendations emphasize the importance of strategic restraint, regulatory certainty, and the principle of subsidiarity in guiding state intervention.

Ultimately, the goal is to create a regulatory environment that enables private sector dynamism while addressing market failures and ensuring that industrial policy serves broader societal objectives. By embracing a balanced approach that combines state catalysis with subsidiarity principles and experimental governance, the EU can harness its institutional strengths to foster a more competitive, innovative, and cohesive economic landscape. This approach not only addresses the immediate challenges faced by legacy industries but also lays the foundation for sustainable growth in the long term.

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