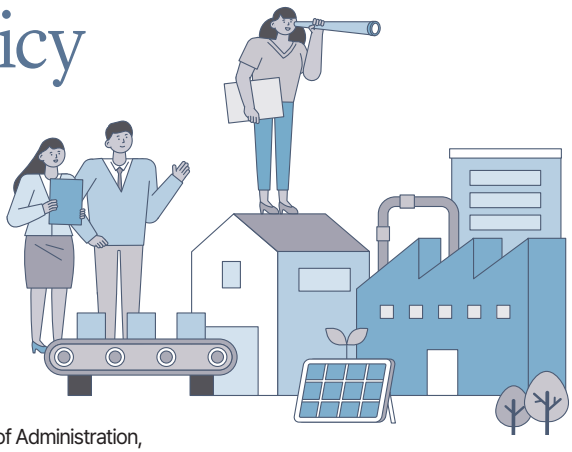
Transitional Industrial Change and The Strategic Approach to Industrial Policy



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Our deeply intertwined military, diplomatic, industrial, and trade ties with both the United States and China, as well as our growing national power to near G7 status, have created a paradox in which we are being asked to play a role as a participant rather than an enabler in the strategic battlefield. But herein lies our answer. The fact that we are in a position where we are constantly called upon to make strategic choices means that our choices matter in the strategic competition arena.

Korean industry faces endless challenges

On May 30, just three days before the election of the 21st president of South Korea, and with expectations for the new government at its peak, news from Pennsylvania, the home of U.S. Steel, a symbol of the U.S. steel industry, came that shook the nation's steel industry. U.S. President Donald Trump's 'U.S. Steel Speech' to raise the 25% import tariff on steel and aluminum products to 50%, which went into effect in March, became a reality exactly four days later with his signing of an executive order. This makes it virtually impossible for Korean steel exports to the US. The US is our main market, accounting for 13% of our steel exports (by 2024).

The steel industry, a symbol and protagonist of Korea's industrialization, is a self-portrait of the Korean manufacturing industry, which is struggling to survive in the midst of a transitional global industrial landscape reshaping. The overwhelming competitiveness and efficiency of field-based manufacturing, which has been the source of Korea's manufacturing competitiveness for the past 40 years, is gradually fading due to the aging of skilled workers, accelerated offshoring of new investments in advanced manufacturing, and aging industrial infrastructure. In the midst of all this, the irresistible force of decarbonization and digital transformation has become a catalyst for accelerating the expiration date of many of our differentiating competitive advantages, including the most efficient utilization of fossil fuels and on-site tacit knowledge-based manufacturing competitiveness.

In addition, China's supply glut across all manufacturing industries and the unpredictable direction and pace of U.S. tariff pressures are causing tremendous aftermath for Korea, which is highly

dependent on both the U.S. and China for industry and trade, and the strategic competition between China's high-tech industrial rise represented by “China Manufacturing 2025” and the U.S. to stop it is triggering mutual strategic weaponization of semiconductors and rare earths, further straining our already cramped economic and security position. The growth strategy of our industry, which is based on China, high-tech intermediates, global value chains (GVCs), and exports, must now be completely redesigned.

Global Industrial Landscape Shift in Full Swing and Our Path Forward

A key driver of the current reshaping of the global industrial landscape is the U.S.-China strategic competition over high technology and industry. The strategic competition between the two countries, which has already entered a tif-for-tat phase with hot and cold exchanges between the two countries, will determine the course of the global industrial landscape depending on its speed, intensity, and success. AI-accelerated digital transformation is expected to be the key battleground that will determine the beginning and end of the strategic competition between these two countries, and decarbonization will ultimately serve as a means to undermine the centripetal force of the current global manufacturing order centered in Northeast Asia.

The groundwork for reorganization has already been laid. The U.S. House of Representatives' passage of the ‘One Big Beautiful Bill Act’ on May 22, which allows for a 100% deduction of R&D expenses and a bonus depreciation system that allows for 100% expensing of capital expenditures by January 1, 2030, along with a second Trump-led tariff war, is a prelude to the U.S. counterattack to reshape the global industrial landscape. Some form of reorganization of the current structure is inevitable.

It's hard to say at this point who will ultimately win the battleground in this never-ending strategic competition between the two countries, but one thing is clear. The strategic competition between the two countries will continue for quite some time to come, and we will be asked to make difficult choices from time to time along the way.

Our deeply intertwined military, diplomatic, industrial, and trade ties with both the United States and China, as well as our growing national power to near G7 status, have created a paradox in which we are being asked to play a role as a participant rather than an enabler in the strategic battlefield. But herein lies our answer. The fact that we are in a position where we are constantly called upon to make strategic choices means that our choices play a critical role in the strategic competition. Our industrial national interests can only be secured if we utilize them as strategic leverage. Such a position can only be achieved by securing an irreplaceable position in the global value chain of high-tech industries. In this sense, there is only one path for our industry, which is surrounded by numerous internal and external challenges. It is to always stay on top of the challenges.

The three lynchpins and a strategic approach to industrial policy

To achieve an irreplaceable strategic position in the global industrial landscape, a company needs at least three linchpins. The first is the possession of a dominant position in the value chain of a high-tech strategic industry. The possession of these areas is a key factor in determining dominance in the value chain.

In particular, the higher the strategic value of the industry, the higher the value of the lynchpin. For example, the importance of AI semiconductors in the AI value chain and the monopoly position of semiconductor manufacturing with ultra-fine processes. The second is an irreplaceable advanced manufacturing location. In the current situation where the industrial policies of major countries are competing for high-tech strategic technologies and industries, having a competitive advanced manufacturing capability and location environment means winning the industrial policy competition among major countries. Even if a country has its own technologies and products, it will have less leverage in the strategic competition between major countries if most of its production is done overseas due to lack of competitive production location. The United States is a prime example.

The U.S. has overwhelming semiconductor design capabilities, but not the manufacturing capacity to produce them. Considering that all of the economic and security concerns that the U.S. currently faces are rooted in this area, the in-house production capabilities and the manufacturing environment that supports them are worth the price of a lynchpin. The third is a competitive manufacturing ecosystem. A strong manufacturing ecosystem consisting of small, medium, large, and root industries is the source of our industrial competitiveness, as evidenced by the recent US interest in our shipbuilding industry. It is a prerequisite for the establishment of the first and second lynchpins. Having advanced strategic

technologies and industries and an irreplaceable advanced manufacturing footprint is not possible without a competitive manufacturing ecosystem.

The question now is how to get the lynchpin. Due to the structural limitations of small open economies and limited fiscal resources, it is difficult for us to implement industrial policies at the same scale and intensity as major economies, and it is also difficult for us to implement policies quickly due to the tangled domestic policy production environment. This means that it is difficult for us to pursue bold and effective industrial policies with internal energy alone.

What is needed is a strategic approach to energy from the outside. All successful industrial policy achievements over the past five years have been the result of effectively utilizing external conditions. By harnessing the national sense of crisis, which was heightened by the Japanese export restrictions, the Chinese urea crisis, and the competing industrial policies of major countries on high-tech and strategic industries, into policy momentum, groundbreaking industrial policies for small and medium-sized enterprises, supply chains, and high-tech and strategic industries were promoted. This strategic approach is still relevant today, when the sense of crisis is unprecedented. Based on the momentum generated, it is necessary to identify lynchpin issues and promote policies that can solve them according to priorities, which is where the National Industrial Strategy Platform comes in. It includes a system that can integrate and analyze and utilize internal and external sensitive industrial information produced by the public, government officials, and each sector, and the highest level of governance to formulate and implement strategies based on it. The National Industrial Strategy Platform symbolizes that the time has come to view industry from a security perspective. It is the basis for navigating the era of unlimited competition among countries in industrial policy for a long time to come. A strategic approach to industrial policy starts here. F

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