



Hinh T. Dinh · Hoai Trong Nguyen

Vietnam's Economic Leap

Productivity, Innovation,
and the Road to
High-Income Status

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ABSTRACT

Vietnam's rapid integration into global value chains (GVCs) has powered its economic rise, transforming the country from a low-income to a lower-middle-income economy within a generation. By combining its abundant and disciplined labor force with foreign capital, Vietnam has become a manufacturing hub for increasingly sophisticated exports, generating employment and reducing poverty. However, its heavy dependence on low-wage, low-value-added GVC activities—mainly in final assembly—has constrained its ability to upgrade technologically and move up the value chain. Unlike South Korea and Taiwan, where joint ventures fostered domestic learning and innovation, Vietnam's export growth has been dominated by foreign firms, leaving domestic enterprises with weak linkages, limited productivity spillovers, and little control over upgrading decisions. Rising wages, low export value-added per capita, and shortages of skilled labor are eroding Vietnam's competitiveness, while infrastructure bottlenecks and carbon-intensive manufacturing further expose structural vulnerabilities.

To break free from these constraints and achieve high-income status by 2045, Vietnam must transition from an investment-driven to a productivity-led growth model that combines smart investment with innovation. This transformation requires building competitive domestic firms with strong technological capabilities, fostering technology absorption and diffusion through deeper foreign–local linkages, and promoting

incremental innovation tailored to local needs. Strengthening human capital across five interconnected areas—labor market reforms, education, reverse migration, an aging population, and female labor force participation—will be essential for Vietnam to transition to a high-income status and achieve long-term sustainable growth.

Only by integrating these elements can Vietnam evolve from a low-cost production base into a dynamic, high-value, and innovation-driven economy.

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Overview: Charting Vietnam's Next Leap—Productivity, Innovation, and the Quest for High-Income Status

INTRODUCTION: FROM REFORM TO RENAISSANCE

Over the past three and a half decades, Vietnam has experienced one of the most remarkable economic transformations of the modern era. Since launching the Doi Moi reforms in 1986, the country sustained an average annual GDP growth of 6.6% from 1990 to 2023—double the rate of low-income countries and significantly above the 5.0% average for lower-middle-income peers (World Bank, 2024c). This consistent performance lifted Vietnam from a low-income, agrarian society into a middle-income, export-driven industrializing economy within one generation, with per capita GDP reaching 20% of the OECD average by 2020 (OECD, 2023).

The transformation extends far beyond economic indicators. Life expectancy rose to 75 years by 2022, compared to 63 years in low-income countries and 67 years in lower-middle-income countries. Vietnam achieved near-universal primary education and the highest Human Capital Index among lower-middle-income nations, performing on par with the OECD average in mathematics according to PISA rankings (OECD, 2022). Most dramatically, extreme poverty measured at \$2.15 per day plummeted from nearly 50% in 1992 to less than 1% by

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2020, representing one of the most rapid poverty reduction achievements in modern history (World Bank, 2024b).

Yet beneath the surface of this impressive growth model lie growing vulnerabilities and unfinished reforms. Vietnam's development trajectory is increasingly constrained by low productivity growth, weak domestic enterprise capabilities, and limited technological upgrading. Export gains have been driven primarily by FDI-led assembly operations with low domestic value added. Despite rising per capita income, productivity remains one of the lowest among regional peers. A large informal sector, rising inequality, and demographic pressures further compound these challenges. More fundamentally, Vietnam now confronts a strategic inflection point: the need to shift from input-led to productivity-driven growth, and from reliance on foreign actors to endogenous capabilities. The transition to high-income status will require deep structural reforms.

THE FOUNDATIONS OF SUCCESS

Vietnam's initial success stemmed from pragmatic market-oriented reforms, active integration into the global economy, and a "pro-poor growth" strategy that prioritized equitable access to land, labor markets, and education. The pivotal 1993 Land Law exemplified this approach by granting households basic land rights, providing strong incentives for agricultural investment that increased farm income by 60% between 1993 and 1998 (World Bank, 2022). This reform directly empowered the rural poor, who constituted the vast majority of the population, enabling millions to escape extreme poverty through their primary livelihood.

Vietnam's strategic integration into the global economy proved equally transformative. The country's accession to ASEAN in 1995, the U.S.-Vietnam Bilateral Trade Agreement in 2001, and WTO membership in 2007 were watershed moments that catalyzed export-oriented industrialization. These agreements opened new markets and attracted foreign direct investment, fundamentally reshaping Vietnam's economic structure. Today, Vietnam maintains an extensive network of Free Trade Agreements covering 87% of the global economy (World Bank, 2024b), positioning it as one of the most globally integrated economies in Southeast Asia.

This integration drove a profound structural transformation of the labor market. Between 2010 and 2020, the manufacturing and services sectors collectively generated 10.6 million new jobs (World Bank, 2022), offering

higher wages and greater stability than traditional agricultural work. The share of households receiving wage income increased from 64 to 70% over this decade, with annual household wage income nearly tripling in nominal terms. Foreign-owned enterprises played a crucial role in this transformation, not only providing employment but also introducing new technologies and management practices that gradually diffused throughout the economy.

The export basket evolved dramatically alongside this structural change, shifting from primarily agricultural and commodity exports in the 1990s to low-tech light manufacturing in the 2000s and increasingly sophisticated high-tech exports in the past decade. This diversification reflected Vietnam's growing integration into global value chains, particularly in textiles, electronics, and semiconductors, where the country became a preferred destination for multinational corporations seeking efficient production bases.

THE PRODUCTIVITY CHALLENGE

However, beneath this impressive growth trajectory lies a fundamental constraint that threatens the sustainability of Vietnam's development model. The country's economic expansion has been driven primarily by factor accumulation—adding more capital and labor—rather than productivity improvements that generate higher and sustainable output from existing resources. Factor decomposition analysis in Chap. 2 reveals that Vietnam's total factor productivity (TFP) has been negative or stagnant in most periods except 2010–2019, indicating heavy reliance on capital inputs rather than efficiency gains.

The implications of this productivity gap are profound. Had Vietnam achieved even zero TFP growth—a modest benchmark comparable to other emerging markets—its GDP per capita could have been 30% higher over the past two decades. This represents not just missed opportunities but a warning signal about the diminishing returns that characterize Vietnam's current growth model. As the country approaches upper-middle-income status, the easy gains from moving workers out of agriculture and attracting foreign investment are becoming exhausted.

This productivity challenge manifests most clearly in Vietnam's pattern of structural transformation. While the country has successfully shifted labor from agriculture to industry and services, much of this movement has been toward low-productivity service sectors rather than high-productivity manufacturing. The result is a dual economy where export-oriented manufacturing enclaves operate alongside a large domestic sector characterized by small,

informal enterprises with limited technological capabilities and weak connections to global markets.

Vietnam's integration into global value chains, while successful in generating exports and employment, reveals the limitations of the current model. Only 52% of Vietnam's export value was domestically generated in 2020, compared to over 90% in OECD economies. Much of the country's high-tech exports involve assembly operations using imported components, with minimal domestic value addition or technological spillovers to local firms. The services sector, despite its growing importance in employment, contributes less than 10% of gross export value-added—far below ASEAN and OECD averages—indicating weak linkages between domestic services and the export economy.

Perhaps most troubling, the domestic enterprise sector remains fragmented and poorly integrated into global value chains. The percentage of firms linked to global markets declined from 35% in 2009 to just 18% in 2023, suggesting that the benefits of globalization have become increasingly concentrated among foreign-owned enterprises and a small number of domestic exporters. Most Vietnamese firms remain microenterprises serving local markets with limited capacity for innovation, expansion, or technological upgrading.

A VOLATILE GLOBAL ENVIRONMENT

Vietnam's transition to high-income status now occurs against a backdrop of unprecedented global challenges that fundamentally alter the development landscape in which countries must operate. The post-2008 era has witnessed the gradual unraveling of the neoliberal orthodoxy that previously underpinned globalization and policy convergence, replaced by a fragmented, multipolar, and volatile global economy marked by three major constraints that directly affect middle-income countries such as Vietnam (Anyoui & Dinh, 2024).

The first constraint is rising protectionism and economic nationalism that threatens the globalization setting upon which Vietnam's export success has depended. The U.S.-China trade war exemplifies this shift, with tariff rates rising sharply since 2018 and showing little prospect of reversal under renewed U.S. leadership focused on economic competition with China. The European Union is moving in a similar direction, implementing new trade defense mechanisms and strategic autonomy initiatives (European Union, 2024). Simultaneously, countries are increasingly

adopting industrial policies designed to strengthen strategic sectors and reduce dependence on foreign suppliers. The U.S. CHIPS and Science Act, which allocates \$52.7 billion to semiconductor development, and China's continued strategic planning through initiatives such as Made in China 2025, illustrate a growing preference for national resilience over economic efficiency.

The second constraint involves the narrowing of macroeconomic policy space in developing countries. Successive crises including the 2008 global financial crisis, the COVID-19 pandemic, and commodity price shocks have depleted fiscal reserves and strained public finances. High debt burdens, aging populations, and rising defense expenditures further limit fiscal flexibility. Simultaneously, high global interest rates, exchange-rate volatility, and weakened central bank independence constrain monetary policy options. Developing countries are forced to raise domestic interest rates to prevent capital outflows and currency depreciation, thereby suppressing domestic investment and growth precisely when they need to accelerate productivity improvements.

The third constraint stems from rapid technological change that is disrupting traditional development models. The window for low-skill, labor-intensive export-led industrialization is closing as automation, reshoring, and the growing importance of intangible assets shift the competitive landscape. Manufacturing has become increasingly skill- and capital-intensive, reducing its capacity to absorb large numbers of workers transitioning out of agriculture. As Rodrik and Stiglitz note in their (2024) analysis, structural transformation can no longer rely on expanding manufacturing employment alone but must emphasize productivity growth in labor-intensive services and comprehensive green transitions backed by strong public institutions.

These global shifts require Vietnam to fundamentally reconsider its development strategy. The external environment that enabled the country's initial success—open markets, stable rules, and clear pathways for export-led industrialization—is giving way to a more complex and uncertain landscape that demands greater domestic capabilities and institutional strength.

THE MIDDLE-INCOME TRAP: VIETNAM'S STRATEGIC INFLECTION POINT

The concept of the “middle-income trap,” first articulated by Gill and Kharas in their (2007) World Bank analysis, describes the tendency for countries to experience systematic growth slowdowns after reaching middle-income levels. This pattern reflects the diminishing returns from capital investment and factor accumulation that characterize the transition from extensive to intensive growth. The latest World Development Report (World Bank, 2024a) confirms that middle-income countries often grow more slowly than both low- and high-income peers, underscoring the structural nature of this challenge.

Vietnam faces this transition with additional complexities that make the challenge particularly acute. Demographic pressures are mounting as the country approaches the “aged population” phase by 2036, with rising social security costs and a shrinking working-age population. Climate vulnerabilities pose severe economic risks, necessitating substantial investments in energy, agriculture, and infrastructure adaptation that will strain public resources. Despite overall poverty reduction, inequality has begun to rise, with the Gini coefficient increasing after 2014 as consumption among richer households grew faster than among poorer ones (World Bank, 2022). Chronic poverty remains concentrated among ethnic minorities, rural populations, and those dependent on agriculture, creating pockets of vulnerability that could undermine social cohesion.

The COVID-19 pandemic exposed many of these underlying vulnerabilities, disproportionately impacting informal sector workers, women, and households in the bottom income quintile. The uneven continuity of education during lockdowns threatened to widen human capital gaps, particularly for disadvantaged students who lacked access to digital learning resources. These experiences highlighted the inadequacy of existing social safety nets and the urgent need for more inclusive and resilient growth models.

THE PATH FORWARD: FROM INPUT-LED TO PRODUCTIVITY-DRIVEN GROWTH

To escape the middle-income trap and achieve its ambitious goal of high-income status by 2045, Vietnam must fundamentally transform its growth model from one based on factor accumulation to one driven by

productivity improvements. The 2024 World Development Report describes this transition as moving from a "1i" strategy focused solely on investment to a "3i" strategy that combines investment with technology infusion and innovation. This shift requires comprehensive reforms across multiple dimensions of economic policy and institutional development.

The transformation must begin with building dynamic, competitive domestic enterprises capable of integrating into global value chains while developing indigenous technological capabilities. This means moving beyond the current pattern of microenterprises serving local markets toward firms that can compete internationally, innovate continuously, and generate high-value employment. Success will require addressing persistent constraints including skills mismatches, weak financial access, inadequate infrastructure, and limited research and development investment.

Technology infusion represents the second pillar of this new strategy. Vietnam must move from being a passive recipient of foreign technology to an active adapter and modifier of global innovations. This involves strengthening the absorptive capacity of domestic firms, improving linkages between foreign and local enterprises, and building institutions that can facilitate technology transfer and diffusion. The goal is not to replace foreign investment but to ensure that it generates broader spillovers and capabilities within the domestic economy.

Innovation, the third pillar, requires developing endogenous capacities for technological advancement and product development. For a middle-income country like Vietnam, innovation is less about fundamental research and more about adapting technologies to local conditions, improving production processes, and developing market-specific products and services. This approach, successfully employed by Korea and Taiwan during their transitions to high-income status, emphasizes practical problem-solving and incremental improvement over breakthrough discoveries.

Human capital development underlies all three pillars of this strategy. Vietnam must address skills mismatches between education outputs and labor market demands, improve STEM education while maintaining strength in other disciplines, manage the challenges of demographic transition including aging and urbanization, and increase female labor force participation. These reforms require coordination between education and industry, investment in vocational training, and policies that support work-life balance and social mobility.

Institutional strengthening provides the foundation for this transformation. Effective public institutions, transparent policymaking, and

strong state-business collaboration are essential to align incentives, mobilize resources, and coordinate complex reforms. Vietnam must build state capacity not just to manage risks but to catalyze innovation, coordinate industrial upgrading, and ensure that growth benefits all segments of society.

WHAT THIS BOOK OFFERS

This book provides a comprehensive analysis and forward-looking roadmap for Vietnam's transition to high-income status, organized around the key challenges and opportunities identified in this overview. The analytical framework draws on international experience while recognizing Vietnam's unique circumstances and constraints.

Part One: Growth Diagnostics and Structural Change (Chaps. 2 and 3). Through detailed quantitative factor and sectoral decomposition analyses, these chapters document the low productivity growth, assess the completeness of structural transformation, and identify specific areas where policy intervention can generate the highest returns. The analysis reveals both the achievements and limitations of Vietnam's current growth model while pointing toward alternative pathways for future development.

Part Two: Trade and Industrial Upgrading (Chaps. 4, 5 and 6). These chapters examine Vietnam's export structure, technological content, and the untapped potential of services in export competitiveness. Using international classification frameworks including Revealed Comparative Advantage and the Lall technology taxonomy, these chapters highlight both the progress Vietnam has made in export diversification and the continuing limitations of its position in global value chains. The analysis includes detailed assessment of strategic import replacement opportunities that could strengthen domestic industrial capabilities.

Part Three: Clearing the Path (Chap. 7). This chapter examines the macroeconomic, microeconomic, and structural constraints facing Vietnam in its transition to high-income status and proposes a development strategy to address them. It emphasizes the need for fiscal prudence, institutional strengthening, and forward-looking planning to sustain macroeconomic stability while enabling structural transformation.

Part Four: Domestic Enterprises and Innovation Policies (Chaps. 8 and 9). These chapters explore how to foster stronger links between FDI and local firms, deepen technological capabilities, and build effective innovation ecosystems. Drawing on extensive international experience,