

Thai Economy in the Future: Opportunities, Challenges, and Strategic Pathways Toward Sustainable Growth

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Abstract– Thailand’s economy stands at a critical juncture, influenced by global megatrends, technological transformation, demographic shifts, and environmental challenges. This paper examines the future of the Thai economy by analyzing key drivers of change, including digital transformation, the Bio-Circular-Green (BCG) economy, regional connectivity under the ASEAN framework, and the shift toward service-based industries. Notably, China’s role as Thailand’s largest trading partner and a leading source of foreign direct investment (FDI) is a major macroeconomic driver, shaping Thailand’s trade balance, industrial development, and integration into regional value chains and towards a global supply chain. Drawing upon recent economic data, policy analysis, and expert projections, the study outlines potential growth pathways and structural reforms necessary to ensure inclusive and sustainable development, while navigating the opportunities and risks arising from China’s economic influence.

Keywords: Thai Economy, Digital Transformation, Bio-Circular-Green (BCG) Economy, Foreign Direct Investment (FDI), Sustainable Growth

1. INTRODUCTION

As the second-largest economy in Southeast Asia, Thailand faces both opportunities and vulnerabilities as it transitions into the Fourth Industrial Revolution (Industry 4.0) (World Bank, 2020). Economic growth over the past decades has been driven by export-oriented manufacturing, agriculture, and tourism (NESDC, 2021). However, long-term challenges such as an aging population, rising household debt, global trade volatility, and climate change have created uncertainty (United Nations, 2019; Bank of Thailand, 2023; OECD, 2021). Thailand’s economic trajectory is increasingly intertwined with China’s, given the latter’s status as Thailand’s largest trading partner and a significant investor in strategic sectors such as electronics, electric vehicles, and infrastructure. Fluctuations in China’s growth and policy direction directly impact Thailand’s exports, investment inflows, and tourism receipts. The Thai government’s strategies including Thailand 4.0, the Eastern Economic Corridor (EEC), and the BCG model aim to position the country as a high-income, innovation-driven economy (NESDC, 2018; Ministry of Higher Education, Science, Research and Innovation, 2021). It is therefore necessary to account for both the opportunities and vulnerabilities associated with China’s evolving economic landscape. This paper explores these dynamics in the context of future economic scenarios.

Thailand stands at a strategic inflection point as it seeks to transition from an upper-middle-income country to a high-income, innovation-led economy. Historically, the Thai economy has been driven by three major pillars: export-oriented manufacturing, agriculture, and tourism. These sectors have played a vital role in shaping the country’s rapid industrialization and global integration since the late 20th century (World Bank, 2020). However, the limitations of this growth model have become increasingly evident in recent years, particularly in the face of deepening structural vulnerabilities and global economic uncertainty.

Key long-term challenges are now confronting the Thai economy. Thailand is among the most rapidly aging societies in Asia, with projections indicating that over 25% of the population will be aged 60 and above by 2030 (United Nations, 2019). This demographic shift is expected to constrain labor force growth and exert pressure on the country’s healthcare and pension systems. Additionally, rising levels of household debt among the highest in the region have begun to weigh on domestic consumption and financial stability (Bank of Thailand, 2023). Externally, the Thai economy remains highly sensitive to global trade dynamics, which are becoming increasingly volatile due to geopolitical tensions, supply chain realignments, and post-pandemic recovery trends. Moreover, the growing impacts of climate change such as more frequent droughts, floods, and extreme weather are jeopardizing agricultural productivity, food security, and infrastructure resilience (OECD, 2021).

To navigate these complex dynamics, the Thai government has introduced several strategic frameworks aimed at fostering long-term competitiveness, inclusivity, and sustainability. Foremost among these is the Thailand 4.0 policy, a national agenda launched to promote technological innovation, digital transformation, and value-added industries such as biotechnology, smart electronics, and robotics (NESDC, 2018). This initiative is supported by the development of the Eastern Economic Corridor (EEC), a key investment hub designed to attract high-tech industries and upgrade logistics infrastructure in the eastern provinces.

Complementing these efforts is the Bio-Circular-Green (BCG) Economy Model, which emphasizes sustainable development through the integration of biological resources, circular production, and environmental stewardship aligning Thailand's growth strategy with global sustainable development goals (Ministry of Higher Education, Science, Research and Innovation, 2021).

Against this backdrop, this paper examines Thailand's future economic pathways through the lens of emerging opportunities, persistent challenges, and strategic choices. By evaluating key trends and national responses within the broader context of the Fourth Industrial Revolution, the study aims to identify realistic scenarios that can guide Thailand toward resilient and sustainable economic development.

This paper contributes to the literature by integrating macroeconomic trends, sectoral policy developments, and regional dynamics to present forward-looking scenarios for Thailand's economy an approach that synthesizes fragmented insights into a unified strategic framework.

3. OBJECTIVE

This systematic review aims to synthesize current research and policy literature regarding the future trajectory of Thailand's economy, focusing on identifying key drivers, challenges, and strategic pathways toward sustainable growth.

4. LITERATURE REVIEW

The future of Thailand's economy has been widely discussed in academic, policy, and financial literature. The World Bank (2023) highlights Thailand's need to improve labor productivity and educational quality to remain competitive. The Asian Development Bank (2022) emphasizes infrastructure investment and SME support as key to inclusive growth. Recent studies by Chontanawat (2020) and TDRI (2021) focus on transitioning to a green economy and the digitalization of public services. Meanwhile, the Bank of Thailand (2024) projects that demographic shifts will significantly affect labor supply, consumption patterns, and fiscal burdens over the next two decades. Recent studies also note the growing impact of China on Thailand's macroeconomic environment. For example, Chinese FDI has accelerated industrial upgrading in the EEC, while China's demand fluctuations affect Thai agricultural and manufacturing exports (Bank of Thailand, 2024). These dynamics underscore the need for Thailand to diversify its economic base and strengthen resilience to external shocks, particularly those emanating from China's structural transitions.

The future trajectory of Thailand's economy has been extensively analyzed across multiple dimensions including productivity, infrastructure, demographic trends, green transition, and digital transformation (World Bank, 2023; ADB, 2022; Chontanawat, 2020; TDRI, 2021; Bank of Thailand, 2024). This literature review synthesizes recent findings from international organizations, academic research, and Thai policy institutes to provide a comprehensive understanding of the key challenges and opportunities shaping Thailand's economic prospects.

4.1 Labor Productivity and Educational Quality

Improving labor productivity and the quality of human capital is a recurrent theme in global and national economic assessments. The World Bank (2023) underscores that Thailand's relatively stagnant productivity growth in recent years threatens its competitiveness in the global market. The report identifies deficiencies in the educational system particularly in STEM fields and vocational training as critical barriers. It recommends structural reforms aimed at aligning skills development with industry demands, enhancing teacher quality, and expanding lifelong learning initiatives. These measures are vital to transitioning from a middle-income to a high-income economy (World Bank, 2023). Supporting this, ADB (2022) notes that enhanced labor productivity can be stimulated through technological adoption and innovation, which requires an educated and adaptable workforce.

4.2 Infrastructure Development and SME Support

Infrastructure investment is widely recognized as a foundation for inclusive and sustainable economic growth. The Asian Development Bank's 2022 report emphasizes the need for improved transport networks, digital infrastructure, and energy systems in Thailand to reduce logistical costs and connect rural areas to markets (ADB, 2022). ADB also highlights the critical role of small and medium enterprises (SMEs), which constitute the backbone of the Thai economy. Support policies aimed at improving SMEs' access to finance,

digital tools, and export markets are essential for broad-based growth and employment generation (ADB, 2022; Phongpaichit & Baker, 2021).

4.3 Transition to a Green Economy

Sustainable development has become central to Thailand's long-term economic planning. Chontanawat (2020) explores Thailand's green growth potential, focusing on energy efficiency, renewable energy adoption, and sustainable agriculture. Similarly, the Thailand Development Research Institute (TDRI) (2021) highlights government initiatives aimed at decarbonization and circular economy practices, but notes gaps in regulatory frameworks and capacity at subnational levels.

4.4 Digitalization of Public Services and Economic Sectors

Digital transformation is another critical vector for Thailand's economic future. TDRI (2021) emphasizes the rapid expansion of digital infrastructure and e-government services as key enablers of efficiency, transparency, and citizen engagement. The Bank of Thailand (2024) forecasts that digital innovation will play a pivotal role in offsetting some negative effects of demographic changes by improving productivity and creating new economic opportunities.

4.5 Demographic Shifts and Economic Implications

Demographic change poses significant challenges to Thailand's economic outlook. The Bank of Thailand (2024) projects a shrinking labor force due to low fertility rates and population aging, which will affect labor supply and consumption patterns. The report recommends policy responses including raising the retirement age, promoting labor force participation among women and older workers, and leveraging automation and AI to compensate for labor shortages.

4.6 Economic Landscape (2020–2024)

Thailand's GDP growth slowed significantly during the COVID-19 pandemic, contracting by 6.2% in 2020 (NESDC, 2021). Recovery has been uneven, with tourism lagging behind while digital services and logistics expanded rapidly. Export recovery, foreign direct investment in the EEC, and fiscal stimulus supported modest growth in 2022–2024. However, structural issues remain: productivity growth is stagnant, and household debt remains above 85% of GDP (Bank of Thailand, 2023).

4.7 Key Drivers of Future Growth

- **Digital Economy:** As e-commerce, fintech, and automation expand, Thailand's digital economy is projected to reach 30% of GDP by 2030 (Google-Temasek-Bain, 2023).
- **Green and Circular Economy:** Thailand's BCG economic model promotes sustainable industries such as bioplastics, organic agriculture, and renewable energy (OECD, 2023).
- **Aging Society:** With over 20% of the population expected to be over 60 by 2035, healthcare, robotics, and retirement services will become key sectors (Bank of Thailand, 2024).
- **Regional Integration:** The RCEP and ASEAN frameworks offer new market access and supply chain integration opportunities (ADB, 2022).

4.8. Risks and Challenges

Thailand's future growth is threatened by several risks:

- **Global Economic Slowdown:** The still slow and highly uncertain global economic recovery, particularly the slowdown in the Chinese economy, and the trade policies of major countries such as the United States (e.g. Trump's tariff policies), may have a direct impact on Thailand's export sector, which is a key engine driving the economy (NESDC, 2025).
- **Climate Change:** Rising temperatures and water scarcity threaten agricultural productivity and urban resilience (UNESCAP, 2023). Weather volatility affects agricultural productivity and prices, which are important factors in farmer income and the overall economy (NESDC, 2025).
- **Geopolitical Instability:** Trade tensions, regional conflicts, and supply chain disruptions could impact exports and FDI (OECD, 2021).
- **Educational Gaps:** Mismatch between labor skills and industry demand remains a key bottleneck to innovation (World Bank, 2023).

- Public Debt and Fiscal Constraints: Aging population will increase pressure on pensions and healthcare systems (Bank of Thailand, 2024).

5. METHODOLOGY

5.1 Literature Search Strategy

- Databases and Sources: The review draws on academic databases (Scopus, Web of Science, JSTOR, Google Scholar), official publications from international organizations (World Bank, Asian Development Bank, OECD, UNESCAP), Thai government agencies (Bank of Thailand, NESDC), and recognized research institutes (Thailand Development Research Institute - TDRI).
- Search Terms: Keywords used include: “Thailand economy future”, “Thailand economic growth”, “Thailand digital transformation”, “Bio-Circular-Green economy Thailand”, “Thailand demographic shifts”, “Thailand infrastructure development”, “Thailand SME policy”, “Thailand green growth”, “Risks and Challenges for Thailand’s Economy” and combinations thereof.
- Timeframe: Publications from 2018 to 2024 and Q1/2025 were prioritized to capture the most recent developments, given the rapid evolution of economic and technological contexts.
- Language: Only English and Thai language documents were included to ensure accessibility and relevance.

5.2 Inclusion and Exclusion Criteria

- Inclusion:
 - Peer-reviewed articles, policy reports, official economic outlooks, and white papers focusing on Thailand’s economic prospects or relevant sub-themes.
 - Empirical studies, scenario analyses, and strategic frameworks.
 - Publications by reputable institutions and authors with demonstrated expertise in Thai economic studies.
- Exclusion:
 - Opinion pieces, news articles, or publications lacking rigorous methodology or credible sourcing.
 - Studies focused exclusively on historical economic analysis without future orientation.

5.3 Data Extraction and Analysis

- Relevant data were extracted systematically for each source, including publication details, objectives, methodology, key findings, and policy recommendations.
- Thematic coding was applied to identify recurrent themes across the literature, including labor productivity, infrastructure, SME development, green economy transition, digitalization, and demographic change.
- Comparative analysis was conducted to highlight consensus, discrepancies, and gaps in the current knowledge.

5.4 Quality Assessment

- Source credibility was assessed based on publication outlet, author expertise, and citation impact.
- Policy reports were cross-validated against official government documents and international organization data.

6. RESULT

6.1 Summary of Key Literature and Their Focus Areas

Table 1: Summary of Key Literature and Their Focus Areas

Author / Organization	Year	Focus Area	Key Findings / Recommendations
World Bank	2023	Labor Productivity & Education	Need to reform education system; improve STEM and vocational skills
Asian Development Bank	2022	Infrastructure & SME Support	Emphasizes digital infrastructure and SME finance access

Chontanawat	2020	Green Economy Transition	Highlights renewable energy adoption and sustainable agriculture
Thailand Development Research Institute (TDRI)	2021	Digitalization & Green Growth	Calls for integrated policy frameworks and digital public services
Bank of Thailand	2024	Demographics & Fiscal Impact	Projects labor shortages, aging population challenges

6.2 Thematic Distribution of Literature Reviewed

A pie chart showing the proportion of studies focused on major themes such as Labor Productivity, Infrastructure, Green Economy, Digital Transformation, and Demographic Change.

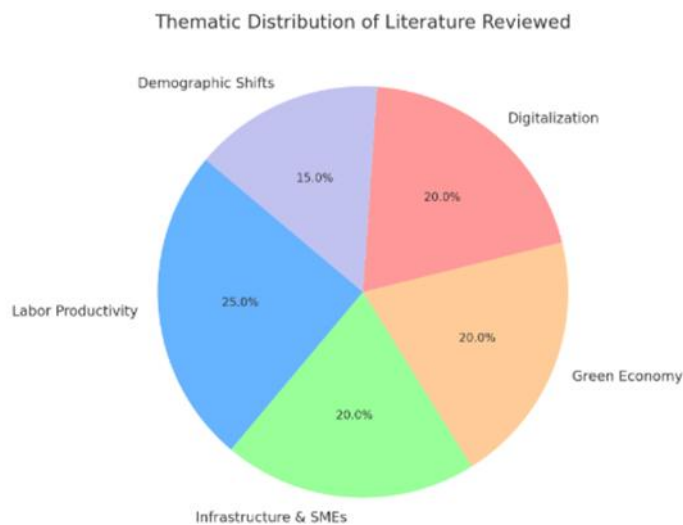


Figure 1. Thematic Distribution of Literature Reviewed

6.3 Drivers and Challenges of Thailand’s Economic Future

- Drivers (Digital Transformation, BCG Economy, ASEAN Connectivity, Service Sector Growth)
- Challenges (Aging Population, Household Debt, Climate Change, Educational Gaps)
- Outcomes (Inclusive Growth, Sustainability, Innovation, Regional Competitiveness)

6.4 Future Growth Scenarios (2025–2040) from TDRI

Table 2: Future Growth Scenarios (2025–2040) from TDRI

Scenario	Description	Projected Growth Rate	Key Conditions
Optimistic	Innovation and green transition succeed	4–5%	Strong reforms, tech adoption, sustainability
Baseline	Slow reforms and moderate growth	~2.5%	Partial policy implementation
Pessimistic	Political instability and global recession	0–1%	Delayed reforms, external shocks

6.5. Sectoral Outlook

- Agriculture: Needs modernization via smart farming, AI, and climate-resilient practices.
- Manufacturing: Transitioning toward high-tech industries such as electric vehicles (EVs), medical devices, and aerospace.
- Tourism: Will rebound with focus on high-value, sustainable, and digital tourism.
- Services: Growth expected in digital finance, logistics, health tech, and creative industries.

6.6 Policy Recommendations

- Human Capital Development: Reform education to support digital and green skills.

- Investment in R&D: Increase public and private investment in innovation, particularly in health, biotech, and AI.
- SME Support: Strengthen access to finance, digital tools, and export opportunities.
- Regional Equity: Promote economic zones and smart city initiatives in second-tier provinces.

7. FUTURE SCENARIOS (2025–2040)

Scenario analysis by the Thailand Development Research Institute (TDRI) projects three futures:

- Optimistic: Thailand achieves 4–5% sustained growth through innovation and green transition.
- Baseline: Slow growth (~2.5%) due to delayed reforms.
- Pessimistic: Growth stagnates amid political instability and global recession.

8. CONCLUSION

Thailand's economic future depends on its ability to embrace structural transformation, digital innovation, and sustainable development. Strategic investments in human capital, green industries, and regional development are essential. While risks remain, proactive policy and strong public-private collaboration can position Thailand as a resilient and forward-looking economy in Southeast Asia and create growth in the manufacturing sector through further integration into the global supply chain through seeking trade cooperation and export risk diversification.

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