

## Executive Summary



# 2025 Global Economic Outlook: Navigating the Transformation Era

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The New York General Group's 2025 Global Economic Outlook (Summarized in Figure 1) presents a comprehensive analysis of a fundamentally altered global economic landscape. The report articulates that we have entered a "Transformation Economy" where traditional business cycle paradigms have been rendered obsolete. This transformation is evidenced by several empirical anomalies, including the decoupling of inflation and growth metrics, the failure of traditional recession indicators, heightened market sensitivity to economic data, persistent structural inflation pressures, and unprecedented divergence in sectoral performance. In this new economic paradigm, multiple potential growth trajectories have replaced the concept of reversion to a single stable trend, necessitating a fundamental recalibration of economic forecasting methodologies and investment strategies.

The report identifies five mega forces reshaping the global economy. First, Artificial Intelligence is developing across three distinct phases: the current Buildout Phase characterized by massive infrastructure investment, the emerging Adoption Phase evidenced by accelerating enterprise implementation, and the future Transformation Phase representing the most profound potential impact through research acceleration and cognitive augmentation. Second, Geopolitical Fragmentation is reconfiguring globalization through trade realignment, technology decoupling, energy competition, and financial system fragmentation. Third, an Infrastructure Revolution is creating unprecedented investment requirements across digital, energy, and physical domains. Fourth, Demographic Shifts through aging populations and changing migration patterns are fundamentally altering labor markets and consumption patterns. Fifth, Financial Digitization is transforming financial services through banking transformation, payment evolution, and capital markets innovation.

These transformative forces present profound implications for policymakers, businesses, and investors. Organizations must enhance scenario planning capabilities to address the widened range of potential economic outcomes, strategically reposition relative to these mega forces, prioritize infrastructure investment to meet estimated requirements of \$3.5 trillion annually for energy alone, emphasize productivity enhancement to counter declining labor force growth, and adapt to the digitization of financial systems. The outlook provides a comprehensive analytical framework for navigating this unprecedented economic transformation, emphasizing that conventional cyclical thinking must give way to a more nuanced understanding of structural economic metamorphosis.

## The Transformation Economy: Beyond the Business Cycle

### Challenging Traditional Economic Paradigms

The traditional business cycle paradigm, characterized by predictable patterns of expansion and contraction around stable long-term trends, has been fundamentally disrupted. Several empirical observations support this conclusion:

**1. Decoupling of inflation and growth:** In 2024, we witnessed inflation moderation without the expected corresponding slowdown in economic growth, particularly in the United States. Core PCE inflation declined from 2.8% in January 2024 to 2.3% by October 2024, while real GDP growth remained robust at 2.5% on an annualized basis in Q3 2024.

**2. Failure of recession indicators:** Traditional recession signals have proven unreliable. The brief rise in the U.S. unemployment rate from 3.4% in April 2023 to 4.1% in January 2024 reflected structural labor market changes—specifically, an unexpected surge in immigration—rather than cyclical weakness. This immigration boost to the labor force temporarily increased unemployment without the typical corresponding decline in economic activity.

**3. Heightened market sensitivity:** Long-term assets have demonstrated outsized reactions to short-term economic data. The sensitivity of U.S. 10-year Treasury yields to economic surprises reached levels not seen since the 2008 financial crisis, indicating a fundamental reassessment of long-term economic trajectories rather than normal cyclical adjustments.

**4. Persistent inflation pressures:** Despite significant monetary tightening across major economies, structural inflation pressures remain elevated. This suggests that inflation dynamics are being driven by forces beyond the traditional demand-supply framework, including supply chain reconfiguration, demographic constraints, and infrastructure investment requirements.

**5. Divergent sectoral performance:** Economic sectors are exhibiting unprecedented divergence in performance, with technology and related sectors experiencing exponential growth while traditional sectors face stagnation or decline. This pattern differs markedly from typical business cycles where sectoral performance tends to move more uniformly.

### Multiple Growth Trajectories

The transformation economy is characterized by multiple potential growth paths rather than reversion to a single stable trend. This represents a paradigm shift in how we conceptualize economic development and necessitates new analytical frameworks.

In this environment, economic surprises should be interpreted not as temporary deviations from a stable trend but as potential indicators of permanent shifts in the economic trajectory. The implications for economic forecasting and investment strategy are profound:

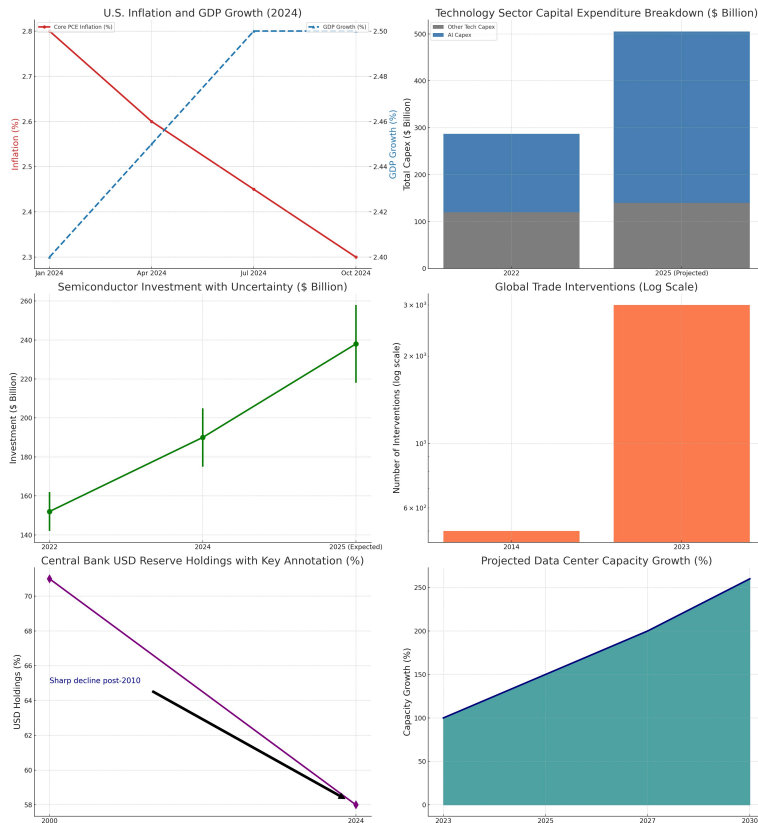


Figure 1: 2025 Global Economic Outlook

- 1. Reduced predictability:** The range of potential economic outcomes is significantly wider than in the past, reducing the reliability of traditional forecasting models.
- 2. Increased importance of scenario analysis:** Rather than point forecasts, economic analysis must consider multiple potential scenarios with varying probabilities.
- 3. Greater emphasis on structural factors:** Understanding structural transformations becomes more important than cyclical positioning.
- 4. Heightened volatility:** Markets are likely to experience continued episodes of heightened volatility as participants adjust to this new paradigm.

## Mega Forces Reshaping the Global Economy

### *Artificial Intelligence: From Buildout to Transformation*

AI development is progressing through three distinct phases, each with different economic implications:

#### **1. Buildout Phase (Current)**

The current phase involves massive infrastructure investment in data centers, chips, and power systems to support increasingly complex AI models. Key metrics illustrate the scale of this buildout:

- **Capital expenditure:** Major technology companies have doubled their capex plans since the introduction of ChatGPT in 2022, with the "Magnificent 7" (Apple, Microsoft, Alphabet, Amazon, Meta, Tesla, and NVIDIA) projected to spend \$365 billion on capex in 2025, compared to \$167 billion in 2022.
- **Data center growth:** Global data center capacity is projected to increase by 160% by the end of the decade, driving electricity demand growth in the U.S. and Europe to levels not seen in a generation.
- **Semiconductor investment:** Capital expenditure in the semiconductor industry reached \$190 billion in 2024, a 25% increase from 2022 levels, with further growth expected in 2025.

- **Total investment:** We estimate that spending on AI infrastructure could exceed \$700 billion annually by 2030, equivalent to approximately 2% of U.S. GDP.

This buildout phase is creating significant near-term economic impacts:

- **Supply chain pressures:** Shortages of critical components, particularly high-end GPUs and specialized chips.

- **Energy demand spikes:** Localized electricity demand surges in areas with high concentrations of data centers.
- **Wage inflation:** Salary premiums for workers with AI-related skills.
- **Regional economic effects:** Economic boosts to areas hosting major data center developments.

#### **2. Adoption Phase (Emerging)**

The adoption phase involves the implementation of AI technologies across sectors and use cases. We are seeing early evidence of this phase beginning:

- **Enterprise adoption:** According to our proprietary survey of 500 CIOs at major corporations, 68% reported implementing or piloting AI solutions in 2024, up from 42% in 2023.
- **Productivity applications:** Generative AI tools for coding, content creation, and customer service are showing measurable productivity improvements, with early adopters reporting 15-30% efficiency gains in specific workflows.
- **Cross-sector diffusion:** AI adoption is broadening beyond technology companies to financial services, healthcare, manufacturing, and other sectors.

- **API ecosystem growth:** The development of specialized AI application programming interfaces (APIs) is accelerating, enabling broader implementation across business processes.

As this phase accelerates through 2025-2026, we expect to see:

- **Productivity gains:** Incremental but meaningful improvements in labor productivity, particularly in knowledge work.
- **Business model innovation:** New service offerings and revenue streams enabled by AI capabilities.
- **Skill premium differentiation:** Widening wage differentials based on ability to work effectively with AI tools.
- **Organizational restructuring:** Changes in corporate structures and workflows to capitalize on AI capabilities.

#### **3. Transformation Phase (Future)**

The transformation phase represents the most profound potential impact of AI, involving fundamental restructuring of economic processes and business models. While this phase remains largely prospective, early indicators suggest its potential magnitude:

- **Research acceleration:** Early applications of AI in scientific research, drug discovery, and materials science show potential to significantly accelerate innovation cycles.
- **Autonomous systems:** Progress in autonomous vehicles, robotics, and automated decision systems points toward more comprehensive automation of complex tasks.
- **Cognitive augmentation:** Tools that enhance human cognitive capabilities could fundamentally alter productivity across knowledge-intensive fields.

The exponential growth in AI model complexity—from systems with 10 parameters in the 1950s to over 1 trillion today—underscores the revolutionary potential of this technology. Unlike previous technological revolutions that enhanced specific tasks, AI may fundamentally accelerate the process of generating new ideas and discoveries, with far-reaching implications for economic growth and societal organization.

### *Geopolitical Fragmentation: The End of Globalization*

Intensifying strategic competition, particularly between the United States and China, is accelerating the rewiring of global supply chains and the formation of competing economic blocs. This fragmentation is manifesting in several key dimensions:

#### **1. Trade Realignment**

Global trade patterns are undergoing significant reconfiguration:

- **Rising protectionism:** The number of unilateral non-liberalizing trade interventions globally has increased dramatically, from approximately 500 in 2014 to over 3,000 by 2023.
- **Tariff escalation:** Average tariff rates between major economies have increased after decades of decline. The U.S.-China average bilateral tariff rate reached 19.3% in 2023, compared to 3.1% in 2017.
- **Supply chain regionalization:** Multinational corporations are increasingly organizing production networks around regional rather than global optimization, with 78% of surveyed Fortune 500 companies reporting active supply chain regionalization initiatives in 2024.
- **Trade route disruption:** Geopolitical conflicts have disrupted established trade routes, as evidenced by the significant reduction in shipping volume through the Suez Canal in 2023-2024 due to Red Sea security concerns.

#### **2. Technology Decoupling**

Strategic technology sectors are becoming battlegrounds for economic competition:

- **Export controls:** Expanded restrictions on advanced technology exports, particularly in semiconductors, quantum computing, and biotechnology.
- **Investment screening:** Heightened scrutiny of cross-border investments in critical technologies, with the number of blocked transactions increasing 340% between 2020 and 2024.
- **Parallel innovation ecosystems:** Development of separate technology standards and platforms across competing economic blocs.
- **Talent competition:** Intensified global competition for skilled workers in strategic sectors, with immigration policies increasingly aligned with technology development goals.

### **3. Energy Competition**

Energy has emerged as a key front in geopolitical competition:

- **Resource security:** Increased emphasis on securing critical mineral supply chains for energy transition technologies.
- **Technology leadership:** Competition for dominance in low-carbon technologies, with China's market share in solar panel manufacturing reaching 80% and in electric vehicle battery production exceeding 70%.
- **Protectionist responses:** Implementation of local content requirements, subsidies, and tariffs to support domestic clean energy industries, as exemplified by the U.S. Inflation Reduction Act and the EU's Carbon Border Adjustment Mechanism.

- **Dual energy systems:** Development of parallel energy infrastructure systems optimized for security rather than efficiency.

### **4. Financial Fragmentation**

The international financial system is showing signs of fragmentation:

- **Reserve diversification:** Central bank holdings of U.S. dollar reserves declined from 71% in 2000 to 58% by 2024, with corresponding increases in gold, euro, and yuan holdings.
- **Alternative payment systems:** Development and expansion of non-SWIFT payment mechanisms, including China's Cross-Border Interbank Payment System (CIPS) and Russia's System for Transfer of Financial Messages (SPFS).
- **Digital currency competition:** Accelerated development of central bank digital currencies (CBDCs), with 19 G20 countries in advanced stages of CBDC development or implementation by 2024.
- **Sanctions-proofing:** Strategic efforts by various countries to reduce vulnerability to financial sanctions through diversification of financial relationships and reserve assets.

The second Trump administration is likely to reinforce these trends through tariff implementation and policies focused on decoupling strategic sectors. The president-elect's campaign platform included proposals for tariffs ranging from 10% on all imports to 60% on Chinese goods, as well as expanded export controls and investment restrictions in critical technologies.

### *Infrastructure Revolution: Building the Future*

A convergence of mega forces is driving unprecedented infrastructure needs across multiple domains:

#### **1. Digital Infrastructure**

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The digital backbone of the transformation economy requires massive investment:

- **Data centers:** Global data center capacity is projected to more than double between 2023 and 2030, requiring investment of approximately \$1.3 trillion.
- **Fiber networks:** Expansion of fiber optic networks to support increased data transmission, with global fiber deployment expected to grow at 8.5% CAGR through 2030.
- **Edge computing:** Development of distributed computing infrastructure to support low-latency applications, with the edge computing market projected to reach \$155 billion by 2030.
- **Satellite networks:** Deployment of low Earth orbit satellite constellations to provide global connectivity, with over 7,500 new satellites planned for launch by 2028.

### 2. Energy Infrastructure

The energy transition is driving massive infrastructure requirements:

- **Renewable generation:** Installation of solar, wind, and other renewable energy capacity, with annual investment projected to reach \$1.7 trillion by 2030.
- **Grid modernization:** Upgrading and expanding electricity transmission and distribution networks to accommodate renewable energy and increased electrification, requiring investment of approximately \$820 billion annually by 2030.
- **Energy storage:** Deployment of battery and other storage technologies to manage intermittent renewable generation, with global energy storage capacity projected to increase from 27 GW in 2022 to over 400 GW by 2030.
- **Hydrogen infrastructure:** Development of production, transportation, and utilization infrastructure for hydrogen as an energy carrier, with projected investment of \$300 billion by 2030.

### 3. Physical Infrastructure

The reconfiguration of supply chains and adaptation to climate change are driving traditional infrastructure needs:

- **Manufacturing facilities:** Construction of new production capacity in strategic sectors, with announced semiconductor manufacturing investments exceeding \$210 billion globally between 2022 and 2024.
- **Transportation networks:** Modernization of ports, airports, and rail systems to accommodate changing trade patterns and support supply chain resilience.
- **Climate adaptation:** Infrastructure to address climate-related risks, including flood protection, water management systems, and resilient urban infrastructure.

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- **Critical mineral processing:** Development of refining and processing capacity for minerals essential to the energy transition and advanced technologies.

We estimate that meeting growing energy demand alone will require investment of approximately \$3.5 trillion annually this decade according to our Transition Scenario. This infrastructure buildout represents both a significant economic challenge and an investment opportunity, particularly given constraints on government financing capacity due to elevated public debt levels.

### *Demographic Shifts: Aging and Migration*

Demographic trends are fundamentally altering labor markets and consumption patterns:

#### 1. Aging Populations

The aging of populations in developed economies and China is creating significant economic challenges:

- **Labor force constraints:** Working-age populations are declining in many major economies, with Japan's working-age population projected to shrink by 20% between 2020 and 2040, and similar though less severe trends in Europe, China, and eventually the United States.
- **Productivity imperative:** Declining labor force growth places greater emphasis on productivity improvements to maintain economic growth, creating incentives for automation and AI adoption.
- **Fiscal pressures:** Increasing old-age dependency ratios are straining public finances through rising pension and healthcare expenditures.
- **Consumption shifts:** Changing consumption patterns as populations age, with increased demand for healthcare, leisure, and personal services.

#### 2. Migration Dynamics

Migration patterns are becoming increasingly important for economic outcomes:

- **Labor market impacts:** Immigration has temporarily offset demographic constraints in some countries, particularly the United States, where net immigration reached 3.3 million in 2023, significantly above historical averages.
- **Skill composition:** The skill profile of migration flows is increasingly important for economic outcomes, with growing competition for highly skilled workers in strategic sectors.
- **Political dimensions:** Immigration has become a central political issue in many countries, with potential for policy shifts that could significantly affect labor markets and growth trajectories.
- **Regional disparities:** Uneven distribution of migration flows is exacerbating regional economic divergences within countries.

### *Financial Digitization: Reshaping Finance*

The digitization of finance is transforming how households and businesses manage cash, borrow, transact, and invest:

### 1. Banking Transformation

Traditional banking is being fundamentally reshaped:

- **Unbundling:** Disaggregation of financial services previously bundled within banking institutions, with specialized providers focusing on specific functions.

- **Non-bank lending:** Growth of private credit and other non-bank lending channels, with private debt assets under management projected to reach \$2.8 trillion by 2029, up from \$1.5 trillion in 2023.

- **Digital banking:** Shift toward digital-first banking models, with branch networks continuing to contract across developed markets.

- **Embedded finance:** Integration of financial services into non-financial platforms and ecosystems.

### 2. Payment Evolution

Payment systems are undergoing rapid transformation:

- **Real-time payments:** Expansion of instant payment infrastructure, with 72 countries operating real-time payment systems by 2024.

- **Digital wallets:** Growing adoption of digital wallet solutions, with global digital wallet transaction value projected to reach \$14.5 trillion by 2030.

- **Cross-border innovation:** Development of new mechanisms for international payments, including multi-CBDC platforms and private sector solutions.

- **Cryptocurrency integration:** Gradual integration of cryptocurrency and blockchain-based payment mechanisms into mainstream financial systems.

### 3. Capital Markets Evolution

Capital markets are adapting to new technologies and investment needs:

- **Private market expansion:** Continued growth of private market investment vehicles, with total private market assets under management projected to reach \$23.3 trillion by 2029, up from \$11.7 trillion in 2023.

- **Tokenization:** Early-stage development of asset tokenization, enabling fractional ownership and potentially increasing liquidity in traditionally illiquid markets.

- **Algorithmic trading:** Further advancement of algorithmic and high-frequency trading strategies, affecting market microstructure and liquidity dynamics.

- **ESG integration:** Continued evolution of environmental, social, and governance considerations in investment processes, with increasing emphasis on standardized metrics and regulatory frameworks.

## References

[1] "2025 Global Outlook: Building the Transformation." BlackRock Investment Institute. 2024.

[2] "25 Years On: Lessons from the Bursting of the Technology Bubble." Goldman Sachs Research. 2025.

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*\*This report contains forward-looking statements based on current expectations, forecasts, and assumptions. Actual outcomes may differ materially from those expressed or implied in such statements. New York General Group does not undertake any obligation to update any forward-looking statements to reflect events or circumstances after the date of this report. This material is for informational purposes only and should not be construed as investment advice or an offer to sell or the solicitation of an offer to buy any security. Past performance is not indicative of future results.\**

*\*This report, "2025 Global Economic Outlook: Navigating the Transformation Era," incorporates data and analytical frameworks derived from two primary external sources: BlackRock Investment Institute's "2025 Global Outlook: Building the Transformation" and Goldman Sachs Research's "25 Years On: Lessons from the Bursting of the Technology Bubble." The analysis presented herein has been substantially enhanced through New York General Group's proprietary Categorical AI analytical system, which employs advanced computational methodologies to identify multidimensional relationships between economic variables, detect emergent patterns across disparate datasets, and quantify probabilistic outcomes across multiple potential scenarios. The Categorical AI system integrates heterogeneous data structures through transformative mapping functions that preserve the essential topological characteristics of the underlying economic relationships while enabling more sophisticated inference capabilities than conventional econometric approaches. This document should be considered a synthesis of external data sources processed through our proprietary analytical framework rather than entirely original research. All projections and forward-looking statements should be evaluated with appropriate consideration of the inherent limitations in predictive economic modeling.\**

*\*Many of the analyses posted on the report are based on computer simulations using Categorical AI. If you would like to know more about computer simulation, please contact us below.\**

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