

# Global Trends in High Debt Levels and Their Macroeconomic Implications

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## I. Introduction

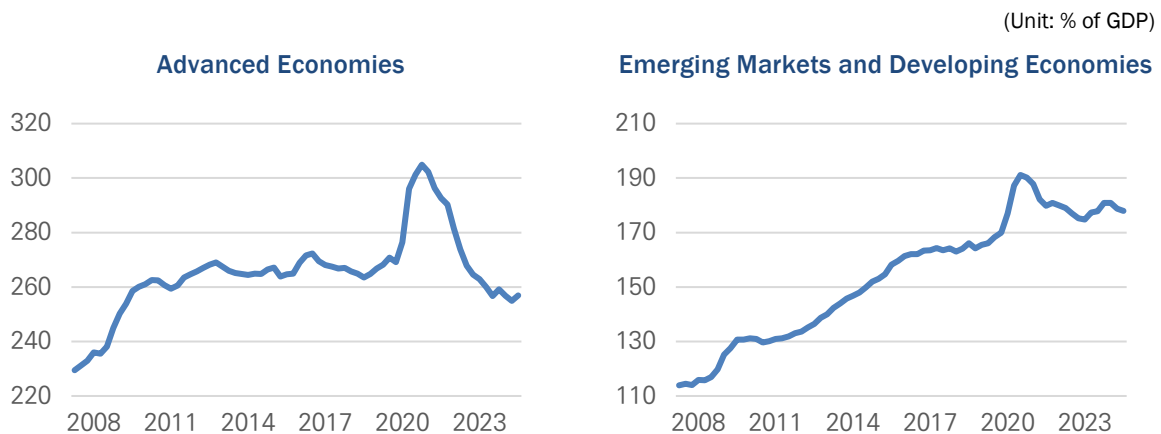
In response to the unprecedented crisis triggered by the COVID-19 pandemic in 2020, governments and central banks around the world injected massive fiscal stimulus and liquidity support. These bold policy measures succeeded in averting the worst recession, but, as a consequence, the world is now facing historically high levels of debt. According to the Institute of International Finance, global debt surpassed USD 324 trillion in the first quarter of 2025—roughly three times the size of global GDP and “[a level unseen] since the Napoleonic Wars.” Moreover, global debt increased by USD 7.5 trillion during the same quarter, more than four times the quarterly average increase of USD 1.7 trillion since late 2022, indicating that the global debt problem has worsened rather than eased after the pandemic.

Against this backdrop, Choi et al. (2025) reassessed the structure of the post-pandemic high-debt environment, analyzed vulnerabilities across advanced economies, emerging markets, and Korea, and derived policy implications for proactive responses. The purpose of this report is to present their key findings.

## II. Post-Pandemic Characteristics of Debt

The rapid expansion of debt described above is revealing structural weaknesses in advanced economies. As the legacy of pandemic-era fiscal expansion collides with persistently high interest rates, concerns are growing that countries once seen as pillars of global stability could themselves become sources of debt distress.

Figure 1. Trends in Debt Levels



Source: Constructed by Choi et al. (2025) using BIS data.

France offers a clear illustration. Since the pandemic, the country has struggled with chronic fiscal deficits. In 2024, its deficit reached 5.8 percent of GDP, and it is projected to remain elevated at 5.6 percent in 2025 and 5.7 percent in 2026. Yet France’s political system has failed to deliver a credible fiscal strategy. Since President Emmanuel Macron’s re-election in 2022, the country has gone through five cabinet reshuffles, reflecting prolonged political paralysis. As a result, government debt rose to €3.3 trillion (approximately KRW 5,400 trillion) last year—more than 113 percent of GDP. This is the third-highest ratio in the euro area, after Greece and Italy, and roughly 40 percentage points above the OECD average of 74 percent. On September 12, 2025, Fitch downgraded France’s sovereign credit rating from AA- to A+, and some observers have even begun to discuss the possibility of an IMF program.

The United States is no exception. In August 2025, US federal government debt surpassed USD 37 trillion (approximately KRW 51,230 trillion) for the first time—more than 120 percent of GDP. The speed of accumulation is striking: Total debt had crossed USD 36 trillion only eight months earlier, in late November of the previous year. The Congressional Budget Office projects that federal debt will reach USD 59 trillion by 2035. Even more alarming is the rising interest burden. In fiscal year 2024, the US government spent USD 1.133 trillion (approximately KRW 1,657 trillion) on interest payments alone, exceeding defense spending. The fiscal deficit that year totaled USD 1.907 trillion, the largest on record outside the pandemic period. In response, the United States has imposed tariffs even on close allies and has sought to institutionalize stablecoins, but the effectiveness of these measures remains uncertain.

While advanced economies are grappling with doubts about the sustainability of public debt, emerging economies are facing a more immediate challenge: servicing large external liabilities. According to the World Bank, the external debt of low- and middle-income countries reached a record USD 8.8 trillion in 2023. Debt-service payments, including principal and interest, also hit a historic high of USD 1.4 trillion. This surge reflects not only higher debt levels but also the spillovers from high interest rates in advanced economies and a strong US dollar. At the same time, debt maturity structures have become less favorable. In 2023, short-term external debt increased by 3.4 percent, outpacing the 2.0 percent rise in long-term debt. This shift toward shorter maturities makes crisis management more difficult. Since the pandemic, several African countries—including Zambia and Ghana in 2020, Mali in 2022, and Ethiopia in 2023—have already defaulted, while others such as Kenya, Morocco, and Nigeria are widely viewed as facing heightened external debt risks.

Amid this global turbulence, Korea confronts a distinct set of vulnerabilities. According to the BIS, Korea's government debt stood at 47.2 percent of GDP in the first quarter of 2025—relatively low by advanced-economy standards. By contrast, household debt remains exceptionally high, at 89.5 percent of GDP, ranking sixth among OECD countries. Although household debt has edged down since peaking during the pandemic-driven ex-

pansion of mortgage and credit lending, it remains at a level that constrains economic activity. Bank of Korea Governor Chang-yong Rhee warned in July 2025 that household debt has already reached a critical threshold, limiting consumption and growth and posing risks if it rises further. Corporate debt, at 111.3 percent of GDP, appears less acute by international standards, but latent risks remain, particularly in real estate project financing.

In sum, the post-pandemic global economy is carrying an unprecedented debt burden. Advanced economies face mounting doubts over the sustainability of public finances, emerging economies confront renewed risks of external debt crises, and Korea continues to struggle with excessive private-sector leverage. These risks may appear distinct, but they are tightly interconnected through global financial markets and supply chains, raising the danger of cascading crises. As geopolitical risks rise and the United States reshapes the trade order, we must urgently re-examine global debt structures and analyze specific vulnerabilities to formulate preemptive policy measures.

### III. Macroeconomic Implications of High Debt Levels

#### 1. Emerging Markets: Possibilities of External Debt Crises

In their attempt to investigate the macroeconomic implications of post-pandemic high debt levels, Choi et al. first analyze external

debt crises in emerging markets and developing economies using the Threshold-augmented Global Vector AutoRegression (TGVAR) model developed by Chudik et al. (2021). In this model, the dependent variable is GDP growth, while one of the main explanatory variables is the growth rate of the external-debt-to-GDP ratio. A threshold variable captures the non-linear effect: When the growth rate of external debt exceeds its threshold value, an additional constant term affects GDP growth. The model is estimated using quarterly data for 14 emerging economies—including China, India, and Brazil—from 1985Q1 to 2024Q4.

The estimation results are as follows: Countries such as India (1.46%), China (3.14%), Saudi Arabia (3.61%), South Africa (4.39%), and Brazil (4.59%) show relatively low thresholds (below 5%), while Peru (19.19%), Thailand (10.71%), Mexico (10.13%), Indonesia (8.82%), and Malaysia (8.84%) exhibit much higher ones. Interestingly, the coefficient on the non-linear term (the indicator that takes 1 when external-debt growth exceeds the threshold) is not uniformly negative; it is positive for Brazil, China, Mexico, Saudi Arabia, and Türkiye. This implies that the non-linear growth effects of rapid external-debt accumulation cannot be explained merely by differences in size or development stage among countries.

## 2. Advanced Economies: Sustainability of Public Debt

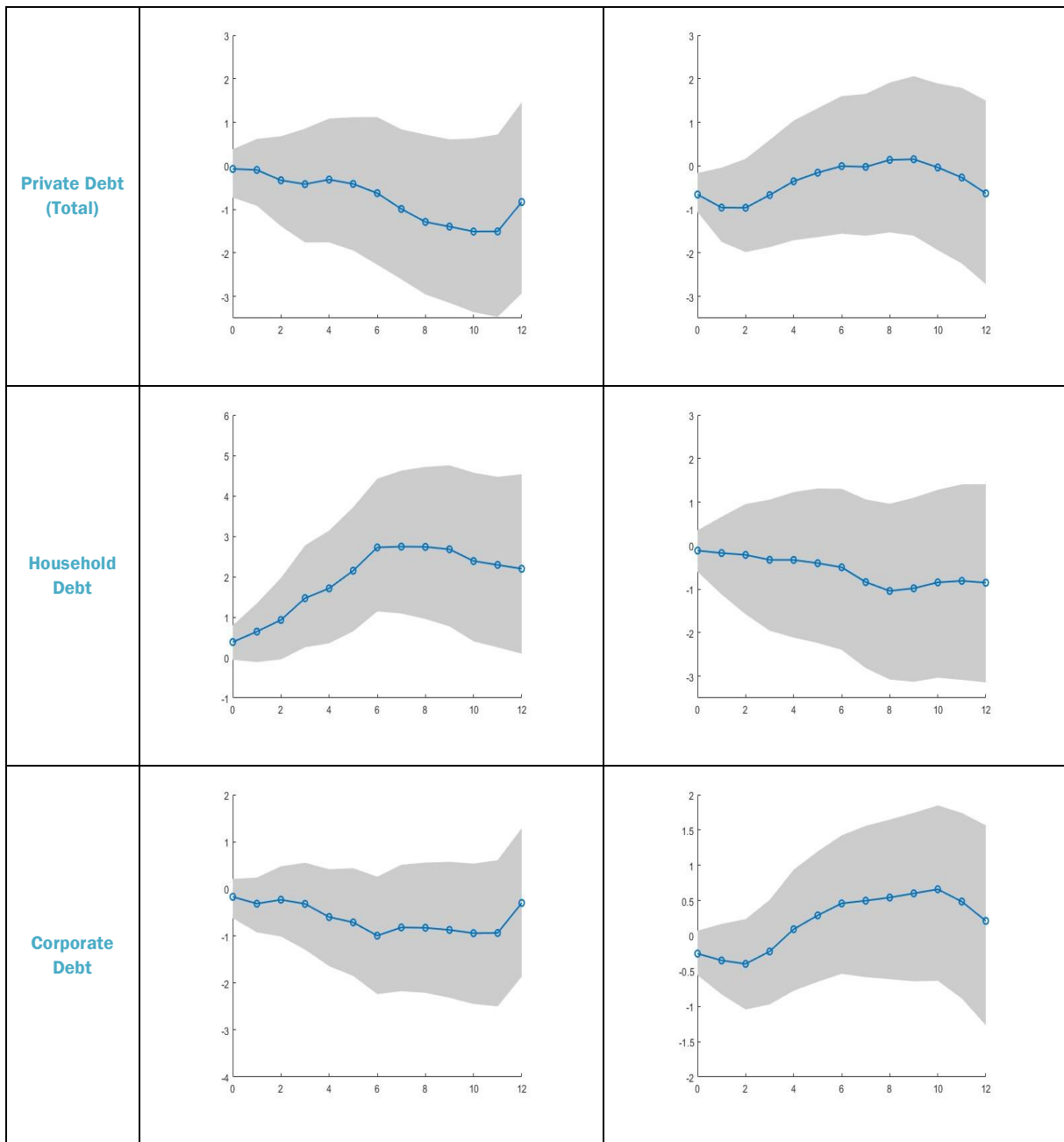
The authors then turn to advanced economies and examine the sustainability of public debt. Using the debt dynamics equation, they decompose changes in the government-debt-to-GDP ratio into contributions from the interest rate, growth rate, and primary balance. The results show that advanced economies' government-debt ratios have risen by an average of 2.3 percentage points annually since 2008, driven by expansionary fiscal responses to successive crises and persistent fiscal deficits, and are projected to continue rising by 0.8 percentage points per year until 2030.

To assess the growth implications of sustained high public debt, the analysis applies the Panel Threshold-AutoRegressive Distributed Lags (Panel Threshold-ARDL) and Panel Threshold-Distributed Lags (Panel Threshold-DL) models of Chudik et al. (2017), where the threshold variable is the level of government-debt-to-GDP itself. The estimated threshold for advanced economies lies between 78% and 89% of GDP, broadly consistent with earlier literature (80–100%). When public debt exceeds this threshold, GDP declines by 0.013–0.020 percentage points on average, and a 1-percentage-point rise in the debt-to-GDP ratio reduces GDP in the long run by 0.151–0.210 percentage points.

A time-series analysis shows that since the 2008 global financial crisis, the debt threshold rose sharply—from 32–36% of GDP before the crisis to 87–89% afterward—while the long-run cumulative impact of public debt on

Figure 2. Effects of Private Debt Growth on GDP Growth

(Unit: %)



Source: Choi et al. (2025)

Notes: These graphs show the effects of a one-percentage-point increase in the private debt growth rate on GDP growth (quarterly). The left panel assumes that the debt-GDP ratio is lower than the trend, while the right panel assumes that the debt-GDP ratio is higher than the trend. The shaded regions represent 90% confidence intervals.

growth deepened from  $-0.059$  to  $-0.049$  to  $-0.137$  to  $-0.091$  percentage points.

### 3. Korea: Private-Sector Debt and Macprudential Stability

Choi et al. also investigate how private-sector debt affects Korea's real economy and financial stability.

For real effects, a state-dependent local projection model incorporating a smooth-transition function is employed. The transition function depends on the gap between the actual private-debt-to-GDP ratio and its long-term trend. The results show that private-debt growth exerts a statistically significant negative impact on GDP when the debt ratio is in a high regime, with the adverse effect persisting for about two quarters (Figure 2). Specifically, household-debt growth boosts GDP in low-debt regimes with a lag—likely reflecting a liquidity channel through which credit expansion supports consumption. In contrast, when the debt ratio is high, household-debt growth no longer has a significant effect on GDP, while corporate-debt growth is insignificant in both regimes.

To analyze the effect on financial stability, a Regime-Switching Vector AutoRegression model is estimated. In Regime 1 (which is highly consistent with periods of a declining output gap—namely, phases of economic slowdown), a shock to private-debt growth initially raises financial stress but subsequently eases it, whereas no significant effect is found

in the alternative regime. Disaggregating by borrower type, corporate-debt growth generally amplifies financial stress, while household-debt growth mitigates it.

## IV. Policy Implications

The findings of Section III yield several policy implications for Korea.

First, private-debt accumulation is not inherently harmful. Depending on the macroeconomic environment, it can support both economic recovery and financial stability. Hence, policy design should consider cyclical and sectoral characteristics rather than focusing solely on aggregate regulation.

Second, policy responses should differentiate between household and corporate debt. Household debt shows positive effects on growth and dampens financial stress; thus, encouraging long-term, fixed-rate, amortizing loans and targeted support for vulnerable borrowers can preserve its stabilizing role. In contrast, corporate-debt expansion—especially during downturns—tends to intensify financial stress. Therefore, authorities should closely monitor the pace and composition of credit growth by firm and industry, prepare liquidity backstops for the corporate bond market, and manage refinancing and maturity risks.

Third, macroprudential surveillance should move from static, indicator-based early-warning systems to dynamic monitoring frame-

works that capture interactions between macroeconomic conditions and debt structures. The econometric analyses demonstrate that the impact of private debt depends on debt levels, business-cycle phases, and interest-rate conditions, underscoring the need for integrated, system-wide approaches to risk assessment.

**F**ourth, while Korea's government-debt-to-GDP ratio (47.2%) appears well below the estimated threshold range of 78–89%, this should not lead to complacency. The threshold is derived as a cross-country average and may vary by nation and period. Moreover, estimation results are not immune to issues such as reverse causality and omitted variables. Thus, estimated thresholds should not be regarded as definitive benchmarks. Instead, they should be interpreted with discretion as one of the primary factors in fiscal policy design.

**F**inally, the analysis of emerging-market external-debt vulnerabilities also holds lessons for Korea. The finding that a debt-growth shock in Thailand—the epicenter of the 1997 Asian financial crisis—has a far greater spillover effect on Indonesia and Malaysia than on the United States highlights the importance of regional financial-stability cooperation. As a key member of ASEAN+3, Korea should remain committed to strengthening the Chiang Mai Initiative Multilateralisation (CMIM) liquidity facility and enhancing the ASEAN+3 Macroeconomic Research Office (AMRO) surveillance capacity.**KIEP**