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RESEARCH ARTICLE

HOW DOES GLOBAL DEBT INFLUENCE GLOBAL ECONOMICS STABILITY AND GROWTH?

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Abstract

INTRODUCTION

Global indebtedness refers to all the money that governments, companies, households and financial institutions around the world have borrowed. These include sovereign debts (money that national governments owe), corporate bonds, personal loans, mortgages and liabilities of the financial sector, among others. The most recent data showed global public debt has topped $300 trillion, an all-time high indicating opportunities as well as risks. If invested wisely, large amounts of global liabilities create economic growth. However, mismanagement of these liabilities may lead to turmoil and economic instability. Debt problems at a single location in the global economy may affect many other areas, therefore creating the need for effective debt management and policy coordination. The way the world is interconnected makes problems with one country's debts have reverberations all over it, reminding us how important it is to properly handle borrowings globally.

Global economic stability pertains to the balance and ability for anticipation of a worldwide economy, including consistent development, cheap inflation rates, as well as sporadic incidents in finance. This can be achieved through budgetary policies, one of which is to keep government debt ratios below 60 percent of GDP, monetary measures and international trade practices, among other things, aimed at averting drastic fallouts or recessions. Additionally, many aspects impact this, from technological changes to geopolitical occurrences and shifts in global markets. However, disruptions like financial crashes or pandemics can have a major effect on global economic stability, undermining the dependence on periodic stability and promoting the unpredictability of outcomes as well as challenging economies globally. Therefore, guaranteeing this calls for effective governance arrangements together with coordinated international policies globally to help them navigate around potential risks they may face.

The study of the interrelations of global debt and economic growth, due to the increased purpose for the sake of ensuring economic stability for sustainable development, is on the upward trend lately.Neoclassical economists have been pointing out since the 1960s how higher taxes have a detrimental impact on gross capital stock formation since they are needed to pay interest on the country's mounting foreign and domestic government debt (Diamond 1965). Conversely, Keynesian economists contend that growing public debt stimulates economic growth through productive public spending (Leão 2013). Debt alone, if used in the right fashion, can act as a very strong stimulant for an economy's development by funding infrastructural work, education, and important health and other investments that may lead to long-term development in any country. However, the high level of debt may reach an excess and hence a burden, increasing interest payments and reducing public spending on those critical services, which at last may lead to economic stagnation or even crises. This delicate balance is extremely important for policymakers to understand because they have to design fiscal and monetary policies that encourage growth without accumulating unsustainable debt.

Besides, the global nature of debt makes the financial welfare of one country have far-reaching consequences for the entire world economy. High levels of debt in major economies can convert and breed high costs of borrowing, fluctuations in currency and reduce investor's confidence-potential triggers of financial crises that come in a wave across borders. The fact of the indebted relationship comes in handy in many ways, especially for developing countries, to ensure that the borrowing is channelled towards development goals and is not implicative of long-term financial difficulty. This, therefore, becomes fundamental research in establishing the early warning signs of economic trouble. From the trends of debt accumulation and economic performance, experts and leaders in the subject could note a probable upcoming crisis and take prompt actions to reduce the risks associated with the crisis. Specifically, from an understanding of how this connection works, flow plans to handle debt well and ensure it remains within the growth-enhancing levels. It also dictates the teamwork between countries and how they line up their policies, which is instrumental in tackling global money issues. A good understanding of how world debt and economic growth affect one another is necessary for building a robust economy that keeps the investors happy and makes sure that the countries stay stable and on par.

The Impact of Public Debt on Economic Growth

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Following the 2007-2008 global financial crisis, there has been a renewed interest in studying the relationship between economic growth and government debt. Carmen Reinhart and Kenneth Rogoff's "Growth in a Time of Debt" (2010) is a key study, which impacted policymakers, academics, fiscal policies in debt burdened economies, etc. considerably . The research uses panel data analysis from various sources. It has been observed that high levels of public debt cause a negative impact on economic growth. This survey examines the relationship between public debt levels and economic growth from 2010 to 2020, focusing on the nonlinear debt threshold which affects the growth rates of the economy. It reviews 40 studies, discussing theories and providing recommendations for future research.

The survey of literature on public debt and growth uses datasets from various sources, including the World Bank, IMF, AMECO, Eurostat and OECD databases. The studies are limited to observing multiple countries to provide more comprehensive observations. Many studies have found a negative correlation between debt and growth, with recent studies using Granger causality tests using a vector autoregression model. The studies use various identification strategies, including panel data across time, time series analysis, cross-sectional observation and a combination of these approaches. The panel data method highlights individual heterogeneity and allows for more accurate measurement of independent effects. The survey also employs various linear and nonlinear regression methods, with many using endogenous or neoclassical growth models.

The relationship between public debt and economic growth has been a topic of interest since the Great Depression. Neoclassical economists have noted that taxation to finance government debt negatively affects gross capital stock formation, while Keynesian economists argue that rising public debt induces productive public spending and has a positive multiplier effect on the economy. High and growing public debt levels can adversely affect economic growth through crowding out private investment, higher long-term interest rates, higher distortionary taxes, and an increase in inflation. New Keynesian economists argue that debt levels are of little concern as long as interest rates on public debt remain below economic growth rates. However, recent observations suggest that large increases in the debt-to-GDP ratio could lead to higher taxes, lower future incomes and intergenerational inequity. The threshold or nonlinear effect theory supports the existence of a nonlinear relationship between public debt levels and economic growth.

Studies have shown a strong negative relationship between public debt and growth, with various studies indicating that sound domestic policies, quality institutions and outward-oriented policies can help reduce this effect. The ratio of total external debt to GDP is also statistically significant and negatively affects growth. Higher debt levels have a negative impact on economic growth for debt-ridden countries as a large proportion of their output is used to repay debts to foreign lenders. In the European Union, the negative influence of public debt growth on the economy is significant. Public debt has a significant negative permanent and positive transitory effect on economic growth, with a negative long-run effect on growth. Restrictions on government debt are more important in preventing negative growth effects for countries with higher trade openness, lower inflation or higher financial depth.

Studies have explored the existence of a debt threshold, with some finding that the average debt ratio on GDP growth is 77 percent for all countries in the sample. High debt-to-GDP levels are associated with less growth, with median growth being 1.5 percent lower than less-debt-burdened groups and mean growth almost 3% lower. Other studies have found a nonlinear impact of debt on growth with a turning point at about 90 to 100 percent of GDP. The negative growth effect of high debt may start already from levels of around 70 to 80 percent of GDP. The short-run impact of debt on GDP growth is positive, but the positive transitory effect decreases to close to zero and loses significance beyond public debt-to-GDP ratios of around 67 percent. The long-run effects of public debt and inflation on economic growth are negative, with a negative and statistically significant threshold identified for debt ratios above 60 percent. The negative growth effects of debt are dependent upon the quality of a country's institutions, and no nonlinear common threshold is identified for the sample. For example, Alshammary et al., in 2020,found that the effect of public debt on economic growth was significant and positive only below the threshold value of debt to GDP

In conclusion, the findings of a survey of 40 studies published between 2010 and 2020 examined the relationship between public debt levels and economic growth and suggested that high levels of public debt would have a negative impact on economic growth.

However, there may not be a common threshold level and may depend on factors such as a country's development level and the quality of its institutions. The majority of studies found a statistically significant negative effect of public debt on growth, with advanced countries having mean and median threshold levels at 78% and 82% of GDP, and developing countries at 61% and 56% of GDP. Future research should focus on the causal relationship between public debt and growth, consider the bidirectional relationship between the two variables and consider country-specific threshold dynamics. Policymakers should aim to keep debt ratios at sustainable levels, preferably below 80% of GDP, and below 60% of GDP for developing countries.

Debt: Evolution, Causes, and Consequences

The global economy has experienced four waves of debt accumulation, with the current wave starting in 2010. Low interest rates mitigate risks, but weak growth, vulnerabilities, and global risks persist. Debt accumulation has been a recurring global economic issue for the past 50 years, with global debt reaching an all-time high of approximately 23% of global GDP in 2018. EMDE debt also reached a record-high of almost 170 percent of GDP ($55 trillion) in 2018, an increase of 54 percentage points since 2010. The current wave of debt accumulation coincides with multiple challenges for EMDEs, including weaker growth prospects and growing fiscal and current account deficits. The latest wave of debt accumulation could follow the historical pattern and eventually culminate in financial crises in EMDEs. This study compares the current wave of debt accumulation to previous episodes, analyses national episodes of rapid debt accumulation, examines the links between elevated debt levels and financial crises and offers a menu of policy options.

The study provides a comprehensive analysis of debt accumulation in Eastern Mediterranean countries (EMDEs) since 1970, focusing on global debt waves, national episodes of rapid debt accumulation and the linkages between debt accumulation and financial crises. It provides a comparative perspective across waves, identifies frequent triggers of crises and considers selected country cases to illustrate the consequences of rapid debt accumulation that end in crisis.

The book highlights three recurring themes: unprecedented debt buildup in emerging markets and developing economies, precarious protection of low interest rates and the need for robust macroeconomic, financial and structural policies. The buildup of debt to record-high levels in 2018 has not been a linear process - with four waves of broad-based debt buildup in EMDEs since 1970. The current wave of debt accumulation is larger, faster and more broad-based than the previous three waves, with China accounting for the bulk of the average EMDE debt increase. Interest rates have been very low during the current wave, and the search-for-yield environment has contributed to falling spreads for EMDEs. Most national episodes of debt accumulation involve both government and private debt, with the duration of a typical debt accumulation episode being 7-8 years. Domestic vulnerabilities often increase the likelihood of crises and amplify their adverse impact, with crises more likely and severe in countries with higher external debt and lower levels of international reserves.

The current wave of debt accumulation in Emerging Markets has led to a significant increase in debt, with some countries experiencing more than double the growth of the typical historical episode. The emerging markets face weaker growth prospects and pressing investment needs to achieve development goals and improve living standards. Despite the low global interest rates and improved fiscal, monetary and financial sector policy frameworks, the markets still face vulnerabilities that could amplify the adverse impact of financing shocks and cause debt distress. To reduce the likelihood of the current debt wave ending in crisis, sound debt management, strong monetary, exchange rate and fiscal policy frameworks, robust financial sector regulation and policies promoting good corporate governance can help mitigate the impact of the current wave.

The second chapter of the book talks about debt accumulation in emerging market democracies, which is a topic of debate due to high global debt, low interest rates and subpar economic growth. Debt accumulation offers both benefits and costs, depending on the use of debt, the economy's cyclical position and financial market development. The optimal level of debt depends on country characteristics, financial market conditions, government behaviour and debt functions.

Over the past half-century, debt accumulation in Emerging Market and Development has increased significantly, with different regions experiencing diverse debt developments. The evolution of debt in emerging markets has been characterised by waves of rising debt, with the first wave occurring in the 1970s and 1980s, followed by the second wave from 1990 to the early 2000s and the third wave in 2008-2009, which ended with the global financial crisis and the Euro Area debt crisis. These waves began during periods of low real interest rates, were facilitated by financial innovations and then ended with widespread financial crises. The third chapter of the book highlights the importance of financial instruments used for borrowing and the changing nature of emerging market borrowers in international financial markets. The severity of the economic damage done by the financial crises that ended the waves varied among them and across regions.

The fourth chapter talks about the fourth wave of debt accumulation in Emerging Markets which began in 2010, with the largest, fastest and most broad-based increase in debt in the past 50 years. This wave is global, with total debt rising in 79% of emerging markets and by at least 20 percentage points of GDP in just over one-third of them. Factors contributing to debt accumulation include low interest rates, structural changes in financial markets, mounting vulnerabilities and increased fiscal and external deficits. The fourth wave is different from previous waves due to improved macroeconomic and prudential policy frameworks.

The fifth chapter examines the causes and consequences of rapid debt accumulation in Emerging markets and developing economies and the linkages between debt and financial crises. It provides a comprehensive empirical study of 519 national episodes of rapid debt accumulation in 100 markets since 1970. The chapter reveals that most markets experienced financial crises during these episodes, which were often accompanied by financial crises. These crises were typically associated with greater debt buildups, weaker economic outcomes and larger macroeconomic and financial vulnerabilities. The chapter also highlights that most EMDEs experienced financial crises due to unsustainable macroeconomic policies and structural and institutional weaknesses. The chapter also highlights the importance of addressing these weaknesses to prevent future crises.

The fourth wave of global debt accumulation since 2010 has been larger, faster, and more broad-based than the previous three. Factors such as global interest rates and economic growth are likely to shape the trajectory of the current wave of debt. Emerging markets should use lessons from past episodes of rapid debt accumulation to avoid mistakes and mitigate their effects. The sixth chapter discusses the evolution of the current wave, lessons from past debt accumulation and policy prescriptions to lower the likelihood of future debt crises.

How Does Excessive Debt Hurt an Economy?

The Institute for International Finance reported that global debt reached $300 trillion in 2021, accounting for 356 percent of global GDP. Economists often fail to distinguish between types of debt, leading to confusion about the impact of excessive debt on the economy.

Modern monetary theory teaches us that a monetarily sovereign government can create money or debt without funding, but there are always indirect constraints, such as economic constraints, as an economy cannot consume and invest more than it produces and imports. Government spending increases the purchasing power of some sectors of the economy, resulting in increased demand. However, if government spending increases supply without directly or indirectly increasing demand, an imbalance in ex ante supply and ex ante demand must be resolved through implicit or explicit transfers. This requires reducing the purchasing power of one or more sectors of the economy to reduce the ex ante gap between demand and supply. Other mechanisms to resolve this imbalance include inflation, higher income taxes, wealth and property taxes, tariffs, currency depreciation, trade deficits, shortages of consumer goods, financial repression, centralised agricultural purchases, government-controlled monopolies, higher unemployment, wage repression, reduced business profits and falling government spending on public goods.

Rising debt can negatively impact an economy through four consequences: transfers, financial distress, bezzle (false wealth) and hysteresis. Transfers involve transferring income between sectors, which can distort the economy. Financial distress occurs when sectors change their behaviour to protect themselves from debt-servicing costs, potentially undermining growth.

Bezzle, a temporary phenomenon, can result from inflated asset prices or capitalization of expenditures. Hysteresis occurs when debt triggers a financial crisis, leading to economic slowdown.

Rising debt is not a problem when it increases the supply of goods and services and creates demand, as it is self-liquidating. However, when debt rises faster than the country's real debt-servicing capacity, it can boost demand without causing an equivalent rise in production. This can lead to increased demand relative to supply, requiring adjustment mechanisms. Excessive debt can be problematic when transfers undermine growth, such as high inflation, financial repression, higher taxes or trade deficits.

Rising debt can lead to economic agents altering their behaviour to protect themselves from being forced to absorb the cost of debt-servicing costs. Historical precedents show that various sectors of the economy do this, such as households shifting wealth into movable assets, consumers cutting back on spending, manufacturers moving operations abroad, farmers hoarding production, and workers unionising. These actions can cause spillover effects, such as business owners disinvesting, real estate developers cutting back on development projects and factories postponing expansion plans. This can reduce the value of existing infrastructure and manufacturing facilities, making it harder for local authorities and businesses to service the associated debt. Only credible guarantees of the debt can prevent things from spiralling out of control. This behaviour is highly self-reinforcing, as rising levels of debt create increasing uncertainty about how the associated costs will be allocated, setting off financial distress behaviour that undermines growth and further increases the gap between debt-servicing needs and debt-servicing capacity.

Rising debt can lead to fictitious wealth, creating distortions in economic behaviour. This can result in financial crises or stagnation. Rising debt can be linked to soaring asset prices, which exceed their future contribution to production. Additionally, rising debt can result from pressure on banks to lend into nonproductive investment, leading to understated expenditures and overstated net income. Both forms of fictitious wealth create indirect wealth effects and direct income effects on the economy. Fictitious wealth creation and nonproductive investment can boost domestic demand and economic activity, especially when debt is rising. However, these artificial increases must eventually be reversed, often more sharply, once debt stabilises or begins to decline. This leads to households and businesses feeling collectively poorer and pressure to pay down debt. Nonproductive investment and surging leverage ratios have a greater impact on economic activity, overstating the real value created for the economy. This activity can continue for many years but depresses future growth by contributing less to future economic activity than its value implies. The amortisation of fictitious wealth depresses spending and growth, and the GDP growth rate is further depressed. Some economists argue that countries like China, where there are substantial amounts of unproductive spending, don't face significant adjustment costs because both borrowers and banks are state-owned and state-controlled. To resolve this mismatch, banks can default on depositors, use financial repression, or recapitalize the bank. Writing off bad debt is not a mysterious process that makes losses disappear, but it is a process of explicitly allocating a previously unacknowledged loss.

Artificially inflating reported growth relative to an unbiased economic value proxy will eventually result in lower reported growth, as it converges with or drops below the proxy.

The United States and China are the world's two largest economies, and their debt structures and financial systems differ significantly. Direct comparisons of debt levels between countries are limited due to income levels, debt structure and underlying economic volatility. Richer countries have higher debt levels, while inverted debt increases the riskiness of each unit of debt. The more volatile a country's economy, the greater the financial distress costs of debt. Comparing the United States and China on costs associated with future transfers is challenging due to their different economies and balance sheets. China's unbalanced economy and low household share of GDP may make transfers from the household sector more costly for the country. Allocating debt-servicing costs to other sectors is difficult politically.

The financial distress costs in the United States and China are likely to be larger due to three main differences. The U.S. financial system is more flexible, with more moving parts, while China's rigid system is dominated by government-supported banks.

The U.S. has more transparent governance and legal systems, reducing uncertainty about insolvency costs. The Chinese government's greater power within China may help reduce financial distress effects more effectively. As insolvency in China evolves, Beijing may opt for a transparent bankruptcy process or resolve cases based on local politics and power. This decision will affect future insolvency allocation and loan decisions.

The insolvency gap between debt-servicing costs and debt-servicing capacity is a significant factor in financial distress behaviour and costs. The U.S. stock market is estimated to contain three to four times as much bezzle as the Chinese stock market, with bezzle equal to 25 percentage points of GDP in the U.S. and 7 percentage points in China. The real estate market is worth $30-35 trillion, while China's residential real estate is worth $80-85 trillion. Capitalised spending on nonproductive investment is a larger problem in China, with the property sector and infrastructure spending accounting for 25-30% of GDP.

A 2021 McKinsey report found that global wealth, including real estate, has risen 40-50% over the past two decades, with China accounting for 50% of growth. The report suggests that bezzle in major economies, particularly China, may be a problem, with the Japanese multiple doubling since 1990.

Comparing debt-to-GDP ratios between countries with different financial systems and economies is difficult. High debt levels can undermine economic performance, set off financial distress, boost current growth and cause unpredictable hysteresis effects. High debt burdens can cause growth to slow, raise existing debt, and create new problems, making subsequent adjustment difficult.

Overview of Global Economic Stability

Following several years of overlapping negative shocks, the global economy is stabilizing. Global growth in 2024 is envisaged to remain at 2.6 percent—a slightly faster pace than previously expected, due mainly to the continued solid expansion of the U.S. economy. Growth is projected to edge up to an average of 2.7 percent in 2025-26, as trade growth strengthens and broad but measured monetary policy easing supports activity. Nevertheless, the global outlook remains subdued relative to historical standards: both advanced economies and EMDEs are set to grow at a slower pace than in the decade preceding the pandemic (figure A).

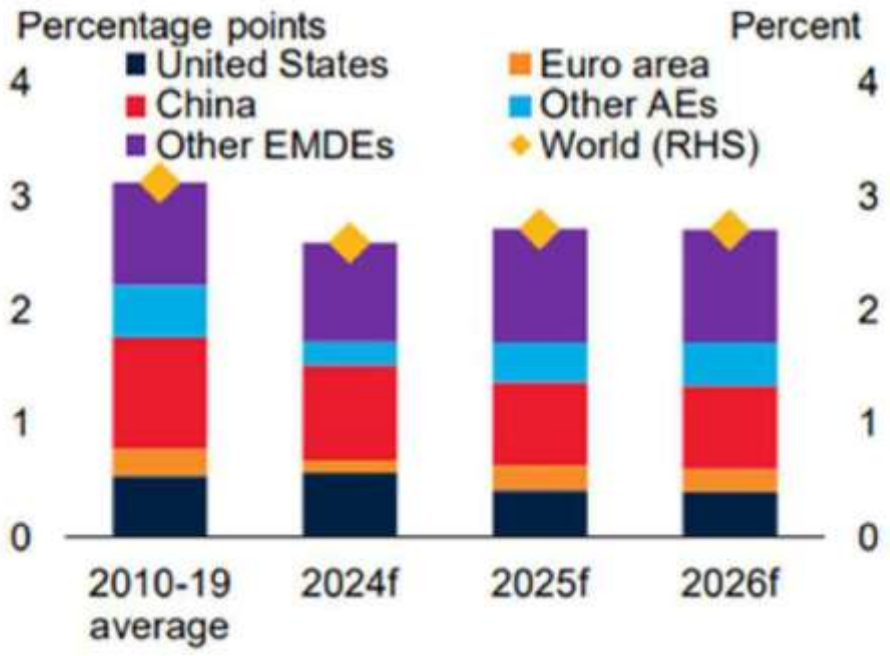


Figure A: Contributions to global growth

Moreover, growth in 2024-25 is set to underperform its average pace in the 2010s in nearly 60 percent of economies, representing more than 80 percent of global output and population. (figure B).

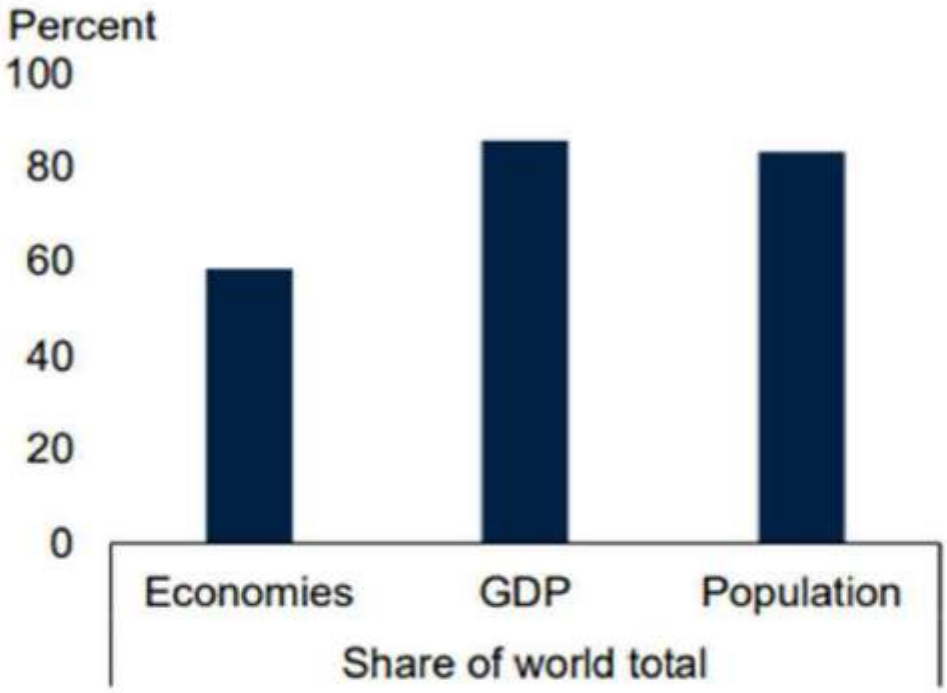


Figure B: Lower average GDP growth in 2024-25 compared to 2010-19

Global inflation is projected to moderate to 3.5 percent in 2024 and 2.9 percent in 2025, but the anticipated pace of decline is slower than expected in January (figure C).

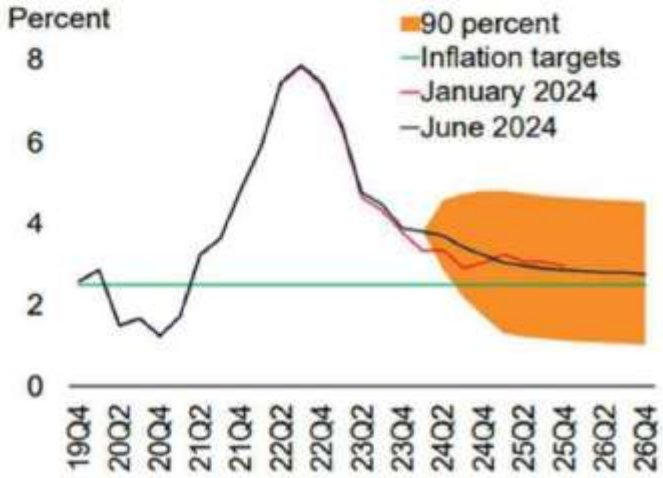


Figure C: Global consumer price inflation

EMDE growth is forecast to moderate to 4 percent in 2024 and hover around that pace over 2025-26. Growth in China is expected to slow in 2024 and ease further in 2025-26, with cyclical headwinds weighing on growth in the near term along with a continuing structural slowdown. Excluding China, EMDE growth is projected to edge up to 3.5 percent this year and then firm to an average of 3.9 percent in 2025-26, as inflation recedes, financial conditions ease, and external demand picks up. Nevertheless, the multiple shocks of recent years have impeded per capita income catch-up, with almost half of EMDEs losing ground relative to advanced economies over 2020-24 (figure D). Significant challenges persist in vulnerable economies—including in low-income countries (LICs) and those facing elevated levels of conflict and violence—where growth prospects have deteriorated markedly.

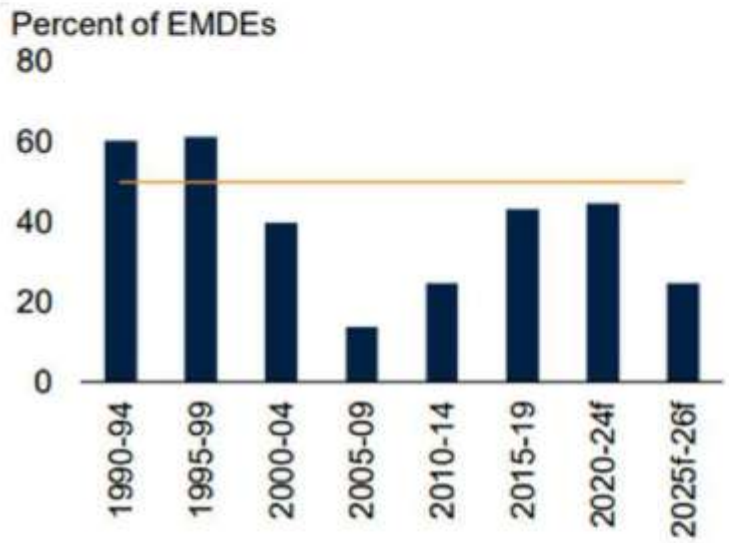


Figure D: Share of EMDEs with GDP per capita growth lower than in advanced economies

Importance of Studying the Relationship Between Debt and Growth

The relationship between public debt and economic growth has been a topic of interest since the Great Depression. Keynesian economists argue that rising public debt induces productive public spending such as building of roads, ports, power, and telecommunications, private investment may actually be crowded in, despite the increase in the interest rate, and has a positive multiplier effect on the economy. On the other hand, high and growing public debt levels can adversely affect economic growth through crowding out private investment, higher long-term interest rates, higher distortionary taxes, and an increase in inflation.

If the internally held debt grows over time, the interest burden of servicing the debt will grow with it (even with r remaining unchanged) and this will add to the deficit, calling for higher borrowing unless taxation can be raised sufficiently to meet the gap. (If inflation is present, the relevant cost is the real rate of interest, which equals the nominal rate minus the rate of inflation.) The rise in the volume of debt by itself may not be a serious problem if the GDP is also rising at the same time. What matters is the evolution of the debt-GDP ratio. New Keynesian economists argue that debt levels are of little concern as long as interest rates on public debt remain below economic growth rates.

Government debt is sustainable if in the long run the debt-GDP ratio stabilizes or does not rise without limit. The gap between the (real) interest rate and the growth rate of the economy is of crucial importance here.

Algebra of Public Debt:

Denoting public debt in any period by D, we have:

$$\Delta D = G - T + rD$$

The right-hand side is the budget deficit, the difference between the total expenditure including interest payment on existing debt (rD) and tax revenue. (G- T) is the primary deficit. Budget deficit leads to an equal addition to D (the left-hand side). Writing d = D/Y (the debt-GDP ratio) and using the formula for the growth rate of a ratio, we obtain:

$$\Delta d = \Delta D/Y - \Delta Y/Y = \Delta D/D - g$$

where g is the growth rate of the GDP.

$$\Delta d = \Delta D/Y - gd = (G - T)/Y + rd - gd = PD/Y + (r - g)d$$

If r > g, it becomes impossible to run a positive primary deficit permanently because the debt-GDP ratio will be rising without limit in that case. At some point, it will be impossible for the government to sell its debt as the investors lose confidence in its ability to service it through higher taxation in the future and this is likely to destabilize the financial market and cause r to rise steeply (through a rise in the risk premium demanded by lenders). Once debt reaches a very high level relative to the GDP, the government may be forced to switch to money printing to meet its obligations. The anticipation of future inflation will tend to push r up and will have other distortionary consequences. Thus, denoting PD/Y by z, for debt to be sustainable (d not rising over time) we need:

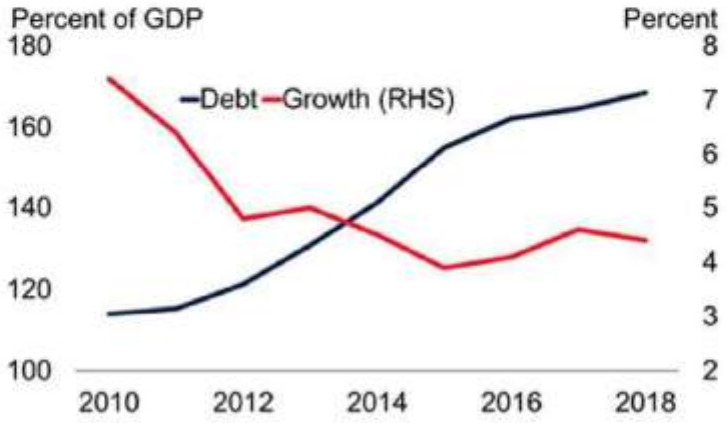
$$\Delta d = z + (r - g)d \leq 0$$
$$\text{or, } z \leq (g - r)d$$

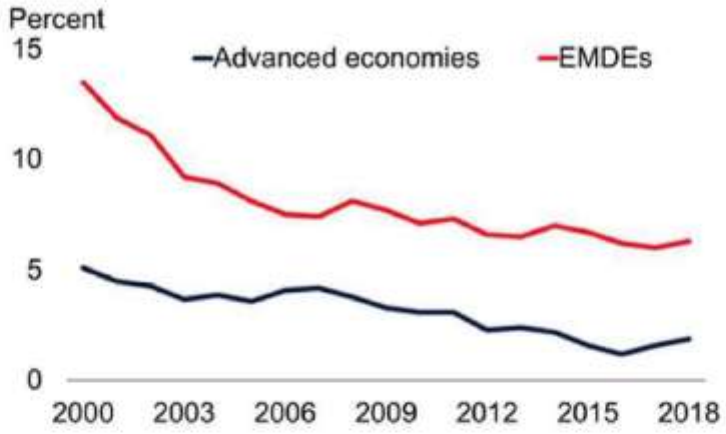
Thus, sustainability requires an upper bound to primary deficit as a proportion of national income. The higher is g relative to r the easier it will be to meet this condition.

For g > r, sustainability requires generation of a primary surplus.

Studies have shown a strong negative relationship between public debt and growth, with various studies indicating that sound domestic policies, quality institutions and outward-oriented policies can help reduce this effect. The ratio of total external debt to GDP is also statistically significant and negatively affects growth. Higher debt levels have a negative impact on economic growth for debt-ridden countries as a large proportion of their output is used to repay debts to foreign lenders.

In EMDEs, EMDE growth has slowed as building of debt increases since 2010.



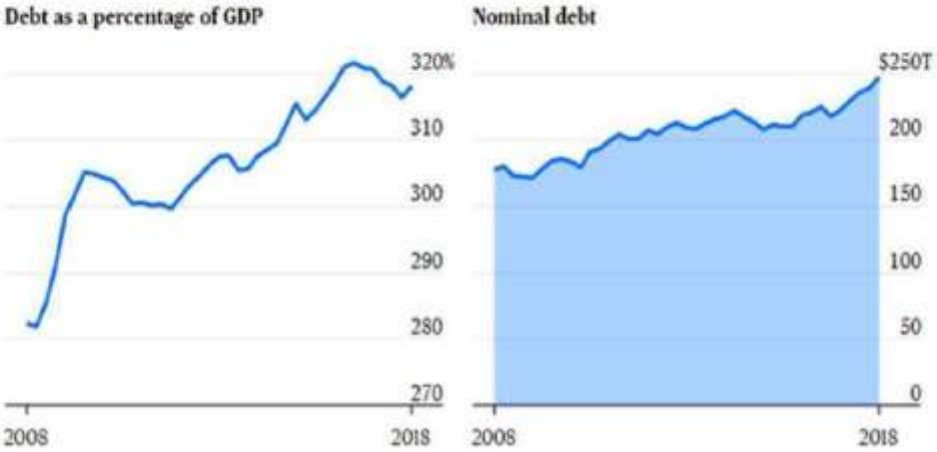


Source: International Institute of Finance; World Bank.
A. Total debt (in percent of GDP) and real GDP growth (GDP-weighted at 2010 prices and exchange rates).
B. Average long-term nominal government bond yields (with 10-year maturities) computed with current U.S. dollar GDP weights, based on 36 advanced economies and 84 EMDEs.

Policymakers should aim to keep debt ratios at sustainable levels, preferably below 80% of GDP, and below 60% of GDP for developing countries.

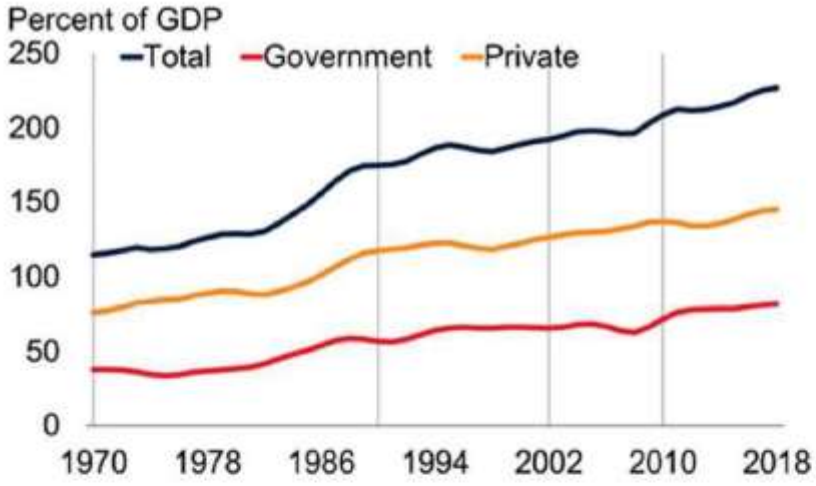
The Nature of Global Debt

Global debt was the equivalent of 305 trillion USD (International Finance, 2022). The debt is around 348% of global GDP. This includes debt by both public and private debtors. The total external debt owed by public and private debtors to creditors in other countries amounted to $76 trillion in 2019. The global debt continues to grow. Between 2015 and 2019 global debt increased by approximately 6% per year.



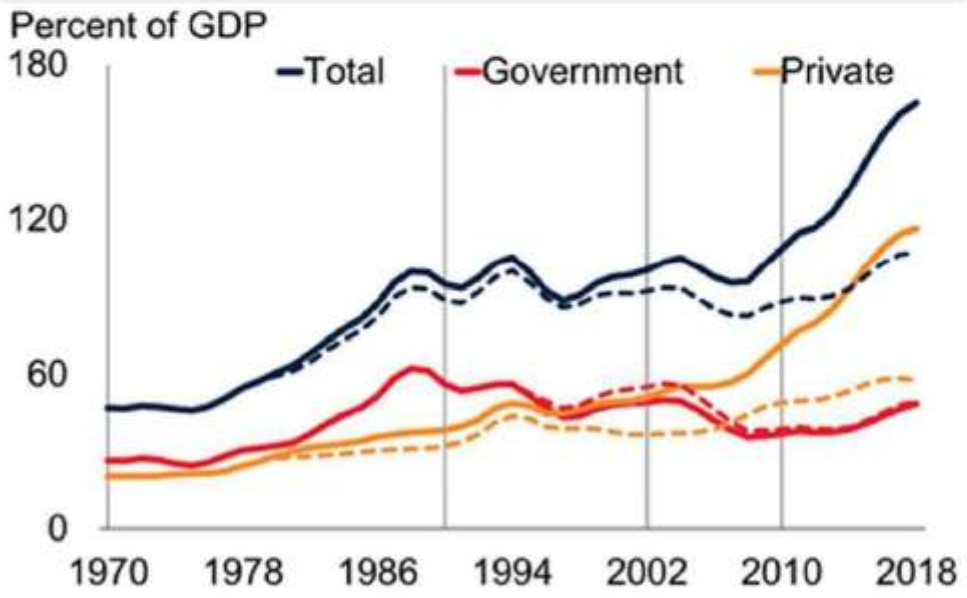
[Image: https://www.lynalden.com/wp-content/uploads/global-debt-gdp-chart.png]

A. Global Debt



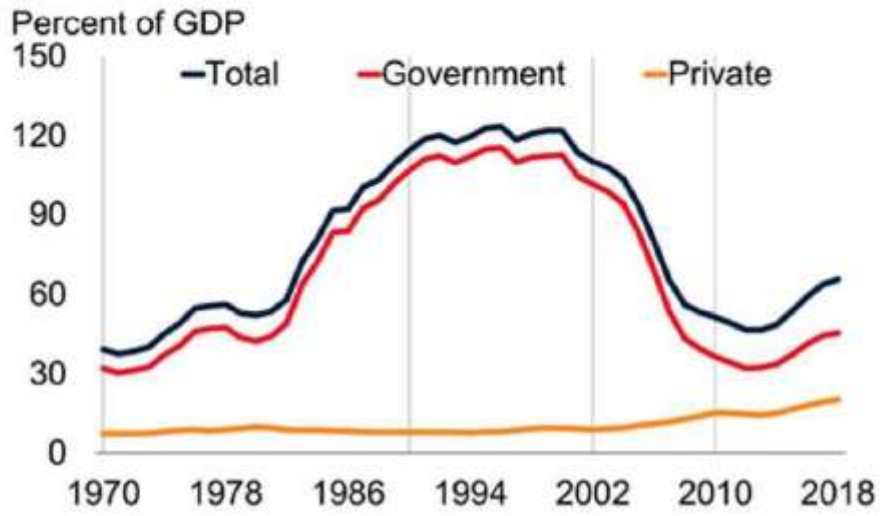
Global debt has trended up since 1970, reaching around 230 percent of GDP in 2018.

B. Debt in EMEDs Debt has risen particularly rapidly in EMDEs, reaching a peak of about 170 percent of GDP in 2018. Much of the increase since 2010 has occurred in the private sector, particularly in China.



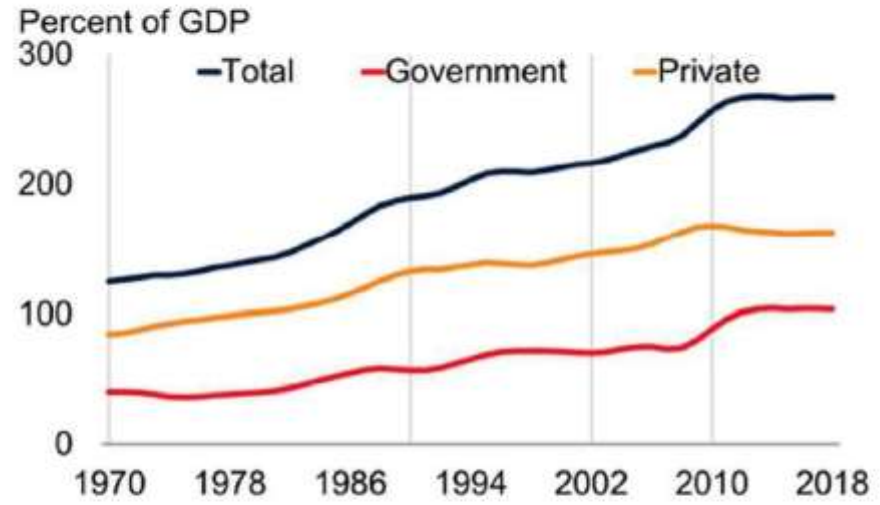
Total (public and private) emerging market and developing economies (EMDE) debt also reached a record-high of almost 170 percent of GDP ($55 trillion) in 2018, an increase of 54 percentage points of GDP since 2010. Although China accounted for the bulk of this increase—in part due to its sheer size—the debt buildup was broad-based: In about 80 percent of EMDEs, total debt was higher in 2018 than in 2010. Excluding China (where the rapid debt buildup was mostly domestic), the increase in debt in EMDEs was in almost equal measure accounted for by external and domestic debt.

C. Debt in LICs Debt in low-income countries has started to rise after a prolonged period of decline following debt-relief measures in the late 1990s and 2000s.



In low-income countries (LICs), following a steep fall between 2000 and 2010, total debt also increased to 67 percent of GDP ($270 billion) in 2018, up from 48 percent of GDP (around $137 billion) in 2010.

D. Debt in Advanced Economies Advanced economy debt has been broadly flat since the global financial crisis, with increased government debt more than offsetting a mild deleveraging in the private sector.



In contrast, in advanced economies, total debt has remained near the record levels reached in the early aftermath of the global financial crisis, at about 265 percent of GDP in 2018 ($130 trillion). While government debt has risen, to a high of 104 percent of GDP ($50 trillion), private sector debt has fallen slightly amid deleveraging in some sectors. Total debt has fallen since 2010 in two-fifths of advanced economies.

Source: International Monetary Fund; World Bank.

Note: Aggregates calculated using current U.S. dollar GDP weight and shown as a 3-year moving average. Gray vertical lines represent start of debt waves in 1970, 1990, 2002, and 2010. B. Dashed lines refer to EMDEs excluding China.

Types of Global Debt

There are several types of debt around the world, and when certain areas get too high, it often causes an economic bubble followed by a financial crisis.
More specifically, there is:

• **Government debt:** Liabilities held by sovereign nations and states/provinces therein.
Table: Top 10 countries by government debt as a percentage of GDP in 2024

Rank	Country	2024
1	Sudan	280.3
2	Japan	254.6
3	Singapore	162.5
4	Greece	158.8
5	Italy	139.2
6	Bahrain	126
7	United States	123.3
8	Maldives	121.1
9	Laos	115.5
10	Cape Verde	112.2
48	India	82.5

• **Corporate Debt:** Liabilities held by non-financial corporations, like technology stocks for example.
Table: Top 10 countries by nonfinancial corporate debt, loans and debt securities as % of GDP in 2021

Rank	Country	2021
1	Luxembourg	319.43
2	Hong Kong	275.04
3	Cyprus	170.75
4	France	166.15
5	Ireland	164.85
6	Malta	163.42
7	Singapore	161.51
8	Sweden	155.25
9	Belgium	150.36
10	Netherlands	146.26
47	India	50.95

• **Household Debt:** Liabilities held by consumers; individual people and their families.
Table: Top 10 countries by household debt, loans and debt securities as % of GDP in 2021

Rank	Country	2021
1	Switzerland	131.91
2	Australia	119.32
3	Canada	107.49
4	South Korea	105.79
5	Denmark	104.36
6	Netherlands	101.47
7	Norway	99.15
8	New Zealand	98.81
9	Hong Kong	93.08
10	Sweden	92.46
38	India	34.6

Here is a chart for government, household, and corporate debt-to-GDP ratios for the major regions in the world based on BIS data:

	Debt as a % of GDP		
Region	Government	Household	Corporate
United States	98%	76%	74%
Euro Area	86%	58%	106%
China	48%	52%	153%
Japan	201%	58%	101%
Advanced Markets	103%	72%	89%
Emerging Markets	46%	39%	95%

Source: Bank for International Settlements

In the United States, we have fairly evenly-divided debt. Government, households, and corporations are all quite indebted, but none of those categories is outrageously over-leveraged. Altogether, however, there is not a lot of flexibility due to so much debt everywhere.

The UK and the Euro Area are similar, with rather broadly-distributed debt. However, on an individual country basis, there are specific pockets of major over-leverage. For example, Italy has government debt over 130% of GDP, which is a major problem. In contrast, Italy's household debt is rather low at just over 40% of GDP.

Australia is the opposite. They have very low government debt at about 40% of GDP, but alarmingly high household debt at over 120% of GDP.

Japan is one of the largest markets in the world, and they have the highest government debt-to-GDP ratio in the world at over 200%. Their other debt levels are more reasonable, but as a whole Japan is arguably the most indebted major country when everything is added together.

China has low government and household debt, and their central bank holds $3 trillion in foreign reserve assets which gives them a very strong central financial position. However, their corporate sector is the most indebted in the world, and the country is currently in a deleveraging process to try to gradually deflate that bubble.

Emerging markets in general tend to have rather low government and household debt and slightly high corporate debt (mostly due to China's weighting in the group). Overall, emerging markets have less debt than developed markets.

Russia, India, Mexico, and Thailand currently have some of the lowest levels of debt relative to GDP across all major areas; corporate, household, and government.

Singapore has moderate debt but has a massive sovereign wealth fund worth over 200% of GDP and large central bank foreign reserves, so their overall net-debt position is low as well.

How Does Excessive Debt Hurt an Economy?

Economists often fail to distinguish between types of debt, leading to confusion about the impact of excessive debt on the economy.

Rising debt can negatively impact an economy through four consequences: transfers, financial distress, bezzle (false wealth) and hysteresis. Transfers involve transferring income between sectors, which can distort the economy. Financial distress occurs when sectors change their behavior to protect themselves from debt-servicing costs, potentially undermining growth. Bezzle, a temporary phenomenon, can result from inflated asset prices or capitalization of expenditures. Hysteresis occurs when debt triggers a financial crisis, leading to economic slowdown.

Rising debt is not a problem when it increases the supply of goods and services and creates demand, as it is self-liquidating. However, when debt rises faster than the country's real debt-servicing capacity, it can boost demand without causing an equivalent rise in production. This can lead to increased demand relative to supply, requiring adjustment mechanisms. Excessive debt can be problematic when transfers undermine growth, such as high inflation, financial repression, higher taxes or trade deficits.

Rising debt can lead to economic agents altering their behavior to protect themselves from being forced to absorb the cost of debt-servicing costs. Historical precedents show that various sectors of the economy do this, such as households shifting wealth into movable assets, consumers cutting back on spending, manufacturers moving operations abroad, farmers hoarding production, and workers unionizing. These actions can cause spillover effects, such as business owners disinvesting, real estate developers cutting back on development projects and factories postponing expansion plans. This can reduce the value of existing infrastructure and manufacturing facilities, making it harder for local authorities and businesses to service the associated debt. Only credible guarantees of the debt can prevent things from spiraling out of control. This behavior is highly self-reinforcing, as rising levels of debt create increasing uncertainty about how the associated costs will be allocated, setting off financial distress behavior that undermines growth and further increases the gap between debt-servicing needs and debt-servicing capacity.

Rising debt can lead to fictitious wealth, creating distortions in economic behavior. This can result in financial crises or stagnation. Rising debt can be linked to soaring asset prices, which exceed their future contribution to production. Additionally, rising debt can result from pressure on banks to lend into nonproductive investment, leading to understated expenditures and overstated net income. Both forms of fictitious wealth create indirect wealth effects and direct income effects on the economy.

Fictitious wealth creation and nonproductive investment can boost domestic demand and economic activity, especially when debt is rising. However, these artificial increases must eventually be reversed, often more sharply, once debt stabilizes or begins to decline. This leads to households and businesses feeling collectively poorer and pressure to pay down debt. Non-productive investment and surging leverage ratios have a greater impact on economic activity, overstating the real value created for the economy. This activity can continue for many years but depresses future growth by contributing less to future economic activity than its value implies. The amortization of fictitious wealth depresses spending and growth, and the GDP growth rate is further depressed. Some economists argue that countries like China, where there are substantial amounts of unproductive spending, don't face significant adjustment costs because both borrowers and banks are state-owned and state-controlled. To resolve this mismatch, banks can default on depositors, use financial repression, or recapitalize the bank. Writing off bad debt is not a mysterious process that makes losses disappear, but it is a process of explicitly allocating a previously unacknowledged loss. Artificially inflating reported growth relative to an unbiased economic value proxy will eventually result in lower reported growth, as it converges with or drops below the proxy.

Comparing debt-to-GDP ratios between countries with different financial systems and economies is difficult. High debt levels can undermine economic performance, set off financial distress, boost current growth and cause unpredictable hysteresis effects. High debt burdens can cause growth to slow, raise existing debt, and create new problems, making subsequent adjustment difficult.

Consequences of high external debt

External debt consists of government debt to foreign countries as well as private debt in foreign currencies. External debt is different from domestic debt because it affects the trade balance. Interest payments and inflation contribute negatively to the trade balance of the debtor country, while it provides a surplus to the creditor country or the country that issues the currency. While the government can control the internal debt through its monetary policy and fiscal policy, it has fewer means to control the external debt. A high external debt can lead to sovereign default, especially for poor countries with limited export.

The growing level of unserviceable external debt in poor countries is producing a dependent relationship between debtor and creditor countries. Critics claim that this debt dependence is often used as leverage for a neocolonial relationship. This view is opposed by development economists who find a beneficial effect of the inflow of foreign capital, whether in the form of direct investment or loans.

Private banks earn rents from the circulation of money because most of the money in circulation originates from bank credit. An imbalance results if money created in one country is used for circulation in another country. Currency substitution, i.e. payment in foreign currencies, is common in countries with a weak currency. As far as the currency that circulates internationally originates from bank credit, it provides a seigniorage profit and an interest rent in the country where the money is created and a corresponding trade deficit for the country where the currency is circulating or stored. This exacerbates the situation in poor countries, making them vulnerable to increasing external debt, inflation, and economic crises.

Similar problems appear in countries that do not have their own currency. For example, the high external debt and financial crises of Greece, Italy, Spain, and several other Eurozone countries in the aftermath of the 2008 financial crisis was partially due to their lack of monetary autonomy and inability to control the money supply.

Mechanisms of debt accumulation

Debt accumulation by countries is a multifaceted process shaped by various economic, political, and social factors. One of the primary mechanisms through which countries accumulate debt is through budget deficits. When a government's expenditures exceed its revenues, it incurs a budget deficit, which often necessitates borrowing to cover the shortfall. Persistent deficits, known as structural deficits, can lead to long-term debt accumulation, even during periods of economic growth. This process is often exacerbated during economic downturns, where reduced tax revenues and increased spending to stimulate the economy further deepen the need for borrowing. Counter-cyclical fiscal policies, which involve increased spending during recessions, can stabilize the economy but may also contribute to higher debt levels.

Another critical factor in debt accumulation is the cost of servicing existing debt, which is influenced by interest rates. As interest rates rise, the cost of servicing debt increases, leading governments to borrow more to meet these obligations, thus creating a cycle of debt accumulation. Additionally, many countries rely on rolling over existing debt by issuing new debt to pay off maturing obligations. In such cases, rising interest rates can significantly increase the overall debt burden. Currency fluctuations also play a crucial role, particularly in countries with significant foreign-denominated debt. A depreciation of the national currency can increase the local currency cost of repaying foreign debt, thereby exacerbating debt levels.

External borrowing, particularly from international organizations and through sovereign bond issuances, is another significant contributor to debt accumulation. Countries often borrow from institutions like the International Monetary Fund (IMF) or the World Bank to finance development projects or stabilize their economies, adding to their national debt. Sovereign bonds issued in international markets, especially those denominated in foreign currencies, can also contribute to external debt. Political and social factors further complicate the picture. Populist policies that increase public spending without corresponding revenue increases can lead to higher debt, while political instability can result in economic mismanagement and increased borrowing costs.

Structural economic issues, such as weak economic growth and demographic changes, also contribute to debt accumulation. Slow or negative economic growth reduces government revenues, necessitating increased borrowing to fund essential services. Aging populations, which require higher spending on pensions and healthcare, can further strain public finances, leading to increased debt if not matched by revenue growth. Additionally, countries may fall into debt traps where excessive borrowing leads to a cycle of needing to borrow more to service existing debt, creating unsustainable debt levels over time.

Finally, external shocks, such as natural disasters and global financial crises, can force countries to borrow heavily to finance recovery efforts, leading to increased debt. Inefficient public investment, where funds are directed towards unproductive or poorly planned projects, can also result in wasteful spending without generating the expected returns, further contributing to debt accumulation. These various mechanisms often interact, creating a complex web of factors that drive debt accumulation in countries. Effective debt management requires careful fiscal policy, sound economic governance, and, in some cases, external assistance or debt restructuring to ensure long-term financial stability.

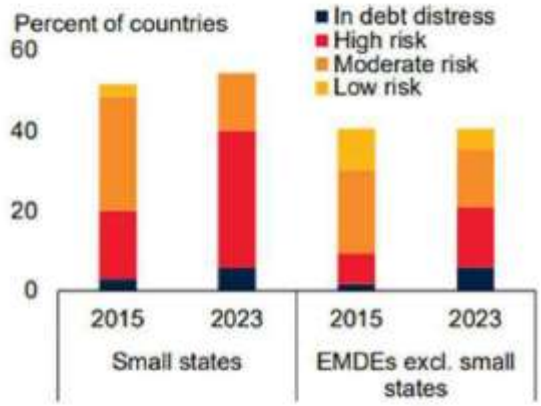
Policy Recommendations as suggested by international financial institutions

1. Authorities should strengthen efforts to contain debt vulnerabilities, including in emerging market and frontier economies.
2. Supervisory and regulatory authorities should use appropriate tools, including stress tests and early corrective action, to ensure that banks and nonbank financial institutions are resilient to strains in commercial and residential real estate and to the credit cycle downturn. Further progress on resolution frameworks and a readiness to apply them is critical to address the problems of weak or failing banks, without undermining financial stability or risking public funds.
3. Quantitative tightening and the reduction in balance sheets need to proceed with care. Central banks should carefully monitor market functioning issues and mobilize to address potential market stresses. Ensuring that banks are prepared to access central bank liquidity and intervening early to address liquidity stress in the financial sector can mitigate financial instability.
4. Given the potential risks of the fast-growing private credit market, authorities should consider a more proactive supervisory and regulatory approach. It is key to close data gaps and enhance reporting requirements to comprehensively assess risks. Authorities should also strengthen cross-sectoral and cross-border regulatory cooperation and make risk assessments consistent across financial sectors.
5. A cybersecurity strategy can strengthen the cyber resilience of the financial sector, accompanied by effective regulation and supervisory capacity, as well as by improved reporting of cyber incidents. Delivering critical services to address disruptions is crucial to limit potential damage to the financial system. Financial firms should develop and test response-and-recovery procedures to remain operational in the face of cyber incidents. Given the global nature and systemic implications of cyberattacks, cross-border coordination is crucial.

6. Global cooperation is also essential to leverage the benefits of new technologies such as artificial intelligence (AI), including by tapping AI solutions to address global challenges.
7. Coordinated improvements in debt relief will be necessary to free up resources for growth-enhancing investments, particularly in some of the most vulnerable EMDEs, given elevated financing needs.

Policy Challenges

Inflation risks underscore the need for monetary policy makers to maintain steadfast focus on price stability. If inflation were to surprise to the upside, it would be critical for central banks to signal their readiness to pause or reduce the pace of monetary easing. Rebuilding fiscal buffers will be important in containing debt-service burdens and regaining market confidence, helping to reduce funding costs. EMDEs will need to mobilize resources to tackle development challenges without damaging the sustainability of their fiscal positions, including through strengthening public investment management. Small states face unique fiscal challenges stemming from their exposure to large external shocks: more than one-third of small states are at high risk of debt distress or already in it, roughly twice the share in other EMDEs.



Impact of currency fluctuations on global debt

In general, every country has its own currency as Indian currency is denoted in "INR," Switzerland's currency in "Swiss franc," Japan's currency in "yen" and American currency is denoted in "USD," also known as a universal currency. The exchange rate is defined as 'The rate at which one currency is exchanged with another currency.' Currency value fluctuates, which constantly changes in an exchange rate. Several factors influence currency fluctuations such as the interest rate, inflation rate, political stability, recession, other macroeconomic variables etc.

Currency fluctuations can have a significant impact on global debt, especially when the debt is denominated in foreign currencies. Here's a breakdown of how currency movements can affect various aspects of global debt:

1. Debt Servicing Costs

- **Foreign Currency Debt:** When a country's debt is denominated in a foreign currency (e.g., a developing country borrowing in U.S. dollars), fluctuations in the exchange rate can impact the cost of servicing that debt. If **the borrower's currency depreciates against the currency in which the debt is denominated, the cost of repaying the debt increases in local currency terms, putting additional strain on the borrower's finances.**

- **Hedging Costs:** Some countries or companies may use hedging strategies to protect against currency fluctuations. However, these hedging strategies can be costly, and if currency movements are extreme or unexpected, they may still face financial difficulties.

2. Sovereign Debt

- **Emerging Markets:** Emerging market countries often issue debt in foreign currencies due to the lack of confidence in their own currencies. If their local currency depreciates, it can lead to a sharp increase in debt levels relative to GDP, making it harder to maintain debt sustainability. This can increase the risk of default or force the country to seek assistance from international organizations like the IMF.
- **Debt-to-GDP Ratio:** A country's debt-to-GDP ratio can increase rapidly if its currency depreciates, making it harder to maintain fiscal stability. This can lead to higher borrowing costs, reduced investor confidence, and potential downgrades in credit ratings.

3. Corporate Debt

- **Multinational Corporations:** Companies that operate internationally often borrow in multiple currencies. If a company has significant debt in a foreign currency and the local currency depreciates, the cost of repaying that debt can rise, impacting profitability and potentially leading to financial distress.
- **Currency Mismatches:** Companies that earn revenue in one currency but have debt in another are particularly vulnerable to currency fluctuations. A sudden depreciation of the local currency can lead to higher debt servicing costs and reduced profitability.

4. Impact on Investments

- **Foreign Investors:** Currency fluctuations can affect the returns on investments in bonds and other debt instruments. If a foreign investor holds debt in a currency that depreciates, the value of their investment decreases when converted back to their home currency.
- **Capital Flows:** Significant currency volatility can lead to capital flight, where investors move their money out of countries with weakening currencies, leading to higher interest rates and borrowing costs for those countries.

5. Contagion Effects: Currency fluctuations in one country can have ripple effects across the global economy, especially if it leads to a debt crisis. For example, a significant depreciation in a major emerging market currency can lead to a loss of investor confidence in other emerging markets, leading to a broader financial crisis.

Case Study of Argentina: Debt as a mechanism in economic crisis

A case study of debt playing a role in the economic crisis was the 1998–2002 Argentine great depression. During the 1980s, Argentina experienced hyperinflation. As a part of the process put in place to bring inflation under control, a fixed exchange rate was put into place between Argentina's new currency and the US dollar. This guaranteed that inflation would not restart, since for every new unit of currency issued by the Argentine Central Bank, the Central Bank had to hold a US dollar against this – therefore in order to print more Argentine currency, the government required additional US dollars. Before this currency regime was in place, if the government had needed money to finance a budget deficit, it could simply print more money (thus creating inflation). However, under the new system, if the government spent more than it earned through taxation in a given year, it needed to cover the gap with US dollars, rather than by simply printing more money. The only way the government could get these US dollars to finance the gap was through higher tax on exporters' earnings or through borrowing the needed US dollars. A fixed exchange rate was incompatible with a structural (i.e., recurrent) budget deficit, as the government needed to borrow more US Dollars every year to finance its budget deficit, eventually leading to an unsustainable amount of US dollar debt.

Argentina's debt grew continuously during the 1990s, increasing to above US$120 billion. As a structural budget deficit continued, the government kept borrowing more, creditors continued to lend money, while the IMF suggested less state spending to stop the government's ongoing need to keep borrowing more and more. As the debt pile grew, it became increasingly clear the government's structural budget deficit was not compatible with a low inflation fixed exchange rate – either the government had to start earning as much as it spent, or it had to start (inflationary) printing of money (and thus abandoning the fixed exchange rate as it would not be able to borrow the needed amounts of US dollars to keep the exchange rate stable).Investors started to speculate that the government would never stop spending more than it earned, and so there was only one option for the government – inflation and the abandonment of the fixed exchange rate.

In a similar fashion to Black Wednesday, investors began to sell the Argentine currency, betting it would become worthless against the US dollar when the inevitable inflation started. This became a self-fulfilling prophecy, quickly leading to the government's US dollar reserves being exhausted. The crisis led to riots in December 2001. In 2002, a default on about $93 billion of the debt was declared. Investment fled the country, and capital flow towards Argentina ceased almost completely.

The Argentine government met severe challenges trying to refinance the debt. Some creditors denounced the default as sheer robbery. Vulture funds who had acquired debt bonds during the crisis, at very low prices, asked to be repaid immediately. For four years, Argentina was effectively shut out of the international financial markets.

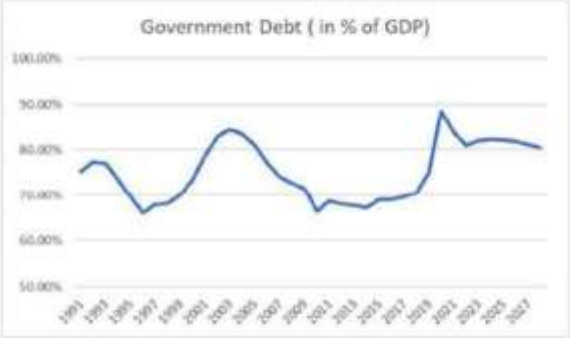
Argentina finally got a deal by which 77% of the defaulted bonds were exchanged by others, of a much lower nominal value and at longer terms. The exchange was not accepted by the rest of the private debt holders, who continue to challenge the government to repay them a greater percentage of the money which they originally loaned. The holdouts have formed groups such as American Task Force Argentina to lobby the Argentine government, in addition to seeking redress by attempting to seize Argentine foreign reserves.

In 2016, Argentina cancelled its debt with the holdout creditors, which received returns in the order of hundreds of percentage points.

Debt Position of The Government of India

Government debt ₹246.531 trillion (US$3.0 trillion)
81.9% of GDP (2023)

Source: IMF



India's reliance on external assistance and concessional debt has decreased since liberalisation of the economy, and the debt service ratio decreased from 35.3% in 1990–91 to 4.4% in 2008–09.

The outstanding internal and external debt and other liabilities of the Government of India at the end of 2024-2025 is estimated to Rs. 181,68,456.91 crore, as against Rs. 168,72,554.16 crore at the end of 2023-2024 (RE). Broad details are as follows: - (In Rs. crores)

	As on 31st March 2024	As on 31st March 2025
Internal debt and other liabilities	163,35,070.06	175,93,529.40
External debt #	5,37,484.10	5,74,927.51
Total	**168,72,554.16**	**181,68,456.91**

External debt at historical rate of exchange.

Note: The Central Government debt/liabilities, including external debt at current exchange rate, EBRs and after adjusting cash balance, is estimated at Rs. 172.37 lakh crore and Rs. 185.27 lakh crore as on 31st March, 2024 & 31st March, 2025, respectively.
Source: Receipt Budget, 2024-2025

In conclusion, it is evident that global indebtedness significantly influences global economic stability and growth. The interdependence of global economies and the widespread impact of debt emphasize the importance of effective debt management and policy coordination on a global scale. The delicate balance between using debt as a stimulant for economic development and the risk of accumulating unsustainable debt must be carefully considered by policymakers. Furthermore, the impact of public debt on economic growth has been a subject of renewed interest following the 2007-2008 global financial crisis, highlighting the need for ongoing research and analysis in this area. Overall, a comprehensive understanding of how global debt and economic growth interact is crucial for building a resilient economy, maintaining stability, and ensuring sustainable development.

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