

2023 GLOBAL DEBT MONITOR

Highlights

- *Global debt declined 10 percentage points of GDP and reached 238 percent of GDP in 2022. In U.S. dollars, global debt remained stable at USD 235 trillion.*
- *The fall in public debt slowed compared to the previous year, as it fell 3.6 percentage points of GDP to 92 percent of GDP in 2022. The fall over the last two years reversed about a half of the surge during the pandemic.*
- *Private debt by households and non-financial corporations made the largest contribution to the overall decline, as it dropped 6.4 percentage points of GDP to 146 percent of GDP in 2022. In many countries, especially in advanced economies and emerging markets excluding China, private debt is now below their pre-pandemic levels.*
- *The two years of large declines, amounting to 20 percentage points of GDP, only partially reversed the spike from the pandemic, as global debt remained 9 percentage points of GDP above its pre-pandemic level in 2022.*
- *Global debt appears to have returned to its historical upward trend. Managing debt vulnerabilities should be key.*

Recent Developments¹

Total global debt (public plus private debt stocks) fell 10 percentage points of GDP in 2022 to 238 percent of GDP (Figure 1 and Table 1). In US dollar terms, debt amounted to USD 235 trillion, or USD 200 billion above its level in 2021. The decline in the last two years amounted to 20 percentage points of GDP, supported by the rebound in economic activity, after a sharp contraction in the early stages of the pandemic, and higher-than-expected inflation. Nevertheless, the reduction corrected about 2/3 of the massive increase in global debt during the pandemic in 2020.

The world's public debt declined 3.6 percentage points to 92 percent of GDP in 2022 (Table 2), or just above USD 91 trillion. The 8 percentage points decline in the last two years offset only about a half of its pandemic-

related surge, as global public debt remained 7.5 percentage points above its 2019 level.

Private debt, which includes household and non-financial corporate debt stocks, drove the overall reduction (Table 3). It dropped 6.4 percentage points to 146 percent of GDP in 2022 (or close to USD 144 trillion). The fall in global private debt over the last two years, 12 percentage points in cumulative terms, almost offsets the 14-percentage points surge in 2020, bringing it close to 2019 levels.

The debt developments, however, varied across country groups and types of debts (Figure 2):

- *Advanced economies (AEs) led the overall reduction, as their average debt fell 12.2 percentage points to 278 percent of GDP in 2022. The fall in private debt accelerated, in 2022, as private credit*

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growth slowed with the tightening of monetary policy and financial conditions. Household and non-financial corporate debts in AEs came down to 74 and 93 percent of GDP, respectively, close to their respective pre-pandemic levels. Public debt continued to fall in 2022 to 114 percent of GDP. It, however, remained well above its pre-pandemic level by 8 percentage points of GDP.

- Debt in *emerging markets (EMs) excluding China* fell 7.6 percentage points to reach 124 percent of GDP in 2022. As in AEs, private debt drove the overall decline. Private debt dropped by 4.5 percentage points to 69 percent of GDP, as household and non-financial corporate debts in 2022 fell below their respective pre-pandemic levels. Public debt declined 3 percentage points in 2022. However, the dip in public debt over the last two years reversed only two-thirds of the surge seen during the pandemic. Public debt stood at 55 percent of GDP, still 3.3 percentage points of GDP higher than its pre-pandemic level in 2019.
- In contrast, debt in *China* rose 7.3 percentage points of GDP to 272 percent of GDP in 2022. Public debt kept rising in 2021-2022, unlike most other countries, by 7 percentage points to reach 77 percent of GDP. Private debt increased too in 2022 to 195 percent of GDP. Overall, total debt in 2022 rose 25 percentage points of GDP above its pre-pandemic level.
- Debt in *low-income developing countries (LIDCs)* has not fallen. Total debt increased by about ½ percentage points of GDP to 88 percent of GDP in 2022. This was driven by a similar increase in private debt, which reached a new high of 39 percent of GDP in 2022. Meanwhile, public debt persisted at 48 percent of GDP. For many LIDCs with a high share of foreign borrowing, exchange rate depreciation pushed up their debt burdens. Facing the increased financing needs in the aftermath of the pandemic and under pressure to respond to the cost-of-living crisis,

reducing debt has become more challenging. These factors deteriorated risk perceptions for LIDCs, with market access, contributing to harsher financing terms in markets (Figure 3).

Historical trends in global debt

Already in 2019, global debt-to-GDP ratios had been on rising trends for several decades (Figure 4). Public debt in AEs fell over a long period in 1950-1974, as economies grew fast after the end of World War II. In LIDCs, the surge in public debts in 1980s and early 1990s was followed by a significant drop over the subsequent decade, aided by a slew of debt relief and financial support, often accompanied by structural adjustment reforms. Even with some highs and lows, overall, the upward trend is evident. Since the early 1970s, global public debt has tripled from about 30 percent of GDP to over 90 percent of GDP by 2022.

Global private debt has been on a steadier historical rise (Figure 5). A notable exception is the deleveraging following the Global Financial Crisis (GFC) in several AEs, especially in the household sector in the U.S. (Figure 6). Over the decade following the GFC, while private debts remained broadly stable in AEs, they rose faster than before in EMs, remarkably in China, and LIDCs, albeit from a relatively low level. Overall, global private debt tripled between 1960 and 2022.

China has been an important force driving global debt in recent decades. For China, COVID-19 is less visible in the debt charts than other countries, as its debt has grown since 2020 unlike other countries. What is visible is decades-long fast debt accumulation. China's total debt-to-GDP ratio increased almost four-fold from around 70 percent, in mid-1980s, close to the average EM levels then, to 272 percent of GDP, close to the U.S. level in 2022 (Table 1). In dollar terms China's total debt (USD 47.5 trillion) is still markedly below that of the United States (close to USD 70 trillion), though. The rise in China's debt ratio to GDP was unparalleled in other large

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economies (Figure 7)². The increase became considerably steeper from 2009 onwards, notably by the non-financial corporate debt (Figure 8). Comparing historical data to a hypothetical scenario where China's debt-to-GDP ratio grew at the same rate annually as the average among other EMs highlights a major contribution of the rise in China's debt to the increase in global debt since 2008. Over half of the increase in the global debt-to-GDP ratio in the period 2008-2022 can be attributed to the rapid increase in China's debt-to-GDP ratio above the rest of world (Figure 9).

Back on the rising trend

A lesson from recent history appears to be that once debt surges, it rarely returns to the previous level.

After three years of the “rollercoaster,” global debt is likely to rise again over the medium-term, under business-as-usual. The macroeconomic conditions that provided great relief to debt ratios in 2021-2022 will not last (Figure 10). The rebound of real GDP growth is fading. Inflation is projected to stabilize at a low level over the medium term (July 2023 WEO Update). If global debt resumes its rising trend going forward, the debt rollercoaster since the pandemic will look nothing more than a temporary deviation around its long-term rising trend.

Governments should adopt strategies to help reduce debt vulnerabilities over the medium term. This includes vigilant monitoring of household and non-financial corporate debt burdens and related financial stability risks. To reduce public debt vulnerabilities, building a credible medium-term fiscal framework can guide the process to balance short-term spending needs with medium fiscal sustainability (April 2023 Fiscal Monitor).

LIDCs, in particular, may face greater challenges in managing debt vulnerabilities

even at relatively low debt levels. In 2022, LIDCs spent 23 percent of tax revenues on average just to make interest payments, as their tax revenues have remained stagnant while debt burdens have risen. Improving tax capacity and revenue mobilization should be a key priority to restore fiscal sustainability (Benitez and others, 2023).

More generally, raising medium-term growth across the globe (July 2023 WEO Update) would further help bringing down debt burdens. Structural reforms to boost potential output at national level would support that goal. Internationally, cooperation on taxation and carbon pricing could further alleviate pressures on public financing and encourage necessary private investments by mobilizing resources.

References

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² Only a handful of small economies experienced larger increases in private debt than China during the period 1995-2022, namely Luxembourg, Hong Kong SAR and Cambodia.

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Frequently Asked Questions

What is the IMF Global Debt Database (GDD)?

The IMF Global Debt Database (GDD) is a dataset covering private and public debt for virtually the entire world (190 countries) dating back to the 1950s. The GDD is the result of a multiyear investigative process that started with the October 2016 Fiscal Monitor, which pioneered the expansion of private debt series to a global sample.

Where can I find the original paper the conceived the GDD?

Please refer to Mbaye, S., Moreno-Badia, M., and K. Chae. 2018. "Global Debt Database: Methodology and Sources," IMF Working Paper, International Monetary Fund, Washington, DC.

How the GDD differs from other debt databases?

It differs in three major ways. First, where most debt datasets either provide long series with a narrow and changing definition of debt or comprehensive debt concepts over a short period, the GDD adopts a multidimensional approach by offering multiple debt series with different coverages, for instance covering various levels of government for public debt statistics, to ensure consistency over time. Second, it more than doubles the cross-sectional dimension of existing private debt datasets. Finally, the integrity of the data has been checked through bilateral consultations with officials and IMF country desks of all countries in the sample.

Further, the GDD reports data for both public and private debt covering a larger number of countries than most other databases and the longest time dimension. The 2022 update covers 190 countries for the period 1950-2021, including a large coverage of debt statistics of emerging market and low-income countries, which are often lacking in most other datasets, particularly for SOE and private sector debt.

The GDD relies on primary sources, while alternative databases, especially those produced by researchers, rely on secondary sources to collect debt data. The reported debt series are compiled without recourse to extrapolation, interpolation, or auxiliary regressions. Original data series are adjusted for differences in definition and coverage whenever feasible.

How often is the Global Debt Database updated?

Until 2022, the GDD was updated annually in December of the following year of latest data availability. The release date has been advanced to September from 2023 onwards.

Which public debt series are available in the GDD?

The public debt series correspond to gross debt and aim at covering all debt instruments owed by the general and/or central government, as defined in the IMF's Public Debt Statistics: Guide for Compilers 2011. The GDD provides available debt statistics for central government debt, general government debt, and non-financial public sector debt. Public debt refers to gross debt owed by the general and/or central government, as defined in the IMF's Public Debt Statistics: Guide for Compilers 2011. It covers the following instruments: (i) loans; (ii) debt securities; (iii) currency and deposits; (iv) insurance, pension, and standardized guarantee schemes; (v) other accounts payable; and (vi) and special drawing rights. The GDD covers SOE debts for countries where public debt series cover the nonfinancial public sector/public sector (in which cases, the debt of SOEs is included in the public sector) or private debt series come from financial accounts (in which case, SOEs are included in private debt series).

Which private debt series are available in the GDD?

The GDD reports on household and non-financial private corporate debt. Private sector debt is defined as the gross outstanding stock of all liabilities that are debt instruments, in line with the System of National Accounts 2008. Cross-border debt flows are considered. To ensure accuracy, a comprehensive validation exercise is conducted with IMF country desks and officials. Data discrepancies are addressed by consulting country officials, statisticians, and other data compilers (e.g., BIS, OECD, World Bank).

How is public debt in the Global Debt Database calculated?

The GDD builds on the IMF's Historical Public Debt Database (HPDD) (Abbas and others, 2011) improving it along three dimensions. First, it reports separate series for general and central government debt. In addition, it includes data on the nonfinancial public sector and public sector (subject to data availability). Second, it fills in more than three-quarters of existing breaks in the HPDD series by relying on a wider range of sources and distinguishing between central and general government debt. Third, the GDD expands the HPDD's country coverage by ten—mostly low-income developing countries.

How is private debt in the Global Debt Database calculated?

The GDD's approach to compiling private debt statistics builds and improves upon the methodology developed by the BIS (Dembiermont, Drehmann, and Muksakunratana 2013). The original BIS sample was expanded to include 158 countries. Private debt is defined in as the gross outstanding stock of all liabilities that are debt instruments, in line with the System of National Accounts 2008. In practice only a handful of countries provide an exhaustive coverage of the above

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instruments, dating back to the 1950s. Adding to this problem, financial innovation and the emergence of new debt-like obligations and types of creditors (e.g., shadow banking) may not be captured in official statistics. Thus, we also compile an alternative measure of private debt that focuses on the core debt instruments, i.e., loans and debt securities. This narrower definition of private debt mirrors that of the BIS's database and helps to expand the GDD's coverage considerably.

How does the GDD calculate the aggregate debt to GDP ratio for a country group or for the world?

For any given year, the aggregate debt-to-GDP ratio for a country group is computed as a GDP-weighted average of individual countries' debt-to-GDP ratios. For example, let d_i denote the debt to GDP ratio of country i and d the aggregate debt ratio for the country group, and Y_i^{USD} refer to each country's GDP converted in U.S. dollar using the period average exchange rate. Then:

$$d = \sum_i d_i \frac{Y_i^{USD}}{\sum_i Y_i^{USD}}$$

In other words, if A_i is the period average exchange rate, the aggregate debt ratio can be expressed as

$$d = \sum_i \frac{D_i}{Y_i} \frac{Y_i A_i}{\sum_i Y_i A_i}.$$

Using the GDP-weighted average is one of the reasons why adding up all countries' debt ratios does not necessarily give the global ratio. Also, the aggregate debt ratio is not necessarily equal to total debt divided by

total GDP, both expressed in USD ($d \neq \frac{D^{USD}}{Y^{USD}}$). The weighted average debt to GDP ratio can change due to changes in debt ratios and/or changes in GDP weights.

For countries for which only public or private debt series, but not both, are reported, the missing debt series are treated as zero for the purpose of calculating group-aggregates. This would underestimate aggregated debt ratios for groups (e.g., about 2 percentage points of GDP for global private debts in recent years). However, by relying on a simple method, it ensures that the sum of aggregated private and public debt ratios for a group is consistent with the aggregate total debt ratios.

What is data transparency and how the GDD enhance it?

Debt transparency generally refers to the timely disclosure or reporting of debt to the general public. It is the knowledge of how much debt is owed by whom to whom and with which instruments and conditions. By providing timely and accurate disclosure of public and private debt to the general public, for wide range of countries, the GDD helps to enhance data transparency.

Who could we contact if we have questions about the GDD?

For further queries, please refer to the [GDD webpage](#) in the IMF website or send an e-mail to IMF-GDD@imf.org.

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Table 1. Global Total Debt, 1950–2022¹
(Percent of GDP, weighted averages)

	1950s	1960s	1968	1970s	1980s	1986	1990s	2000s	2004	2010s	2019	2020	2021	2022
World	96.8	101.5	106.4	115.0	144.3	156.8	180.1	196.8	198.6	219.4	228.9	258.0	248.1	238.1
Advanced Economies	110.0	115.4	118.9	133.6	165.4	177.1	202.0	229.5	225.9	267.4	268.8	301.3	290.1	277.9
Euro Area	53.5	68.1	70.7	118.5	144.1	147.3	176.5	214.4	208.6	255.1	246.7	273.6	266.8	254.4
Japan	13.1	79.7	127.9	157.5	229.5	242.2	296.1	336.7	333.5	386.9	400.9	442.2	439.8	447.4
United Kingdom	134.0	120.5	129.0	116.7	118.7	125.7	153.1	205.2	197.3	248.5	240.8	279.1	269.3	252.1
United States	133.5	140.4	138.7	139.8	163.2	176.8	189.1	218.3	217.7	256.0	260.3	297.4	283.5	273.9
Emerging Market Economies	28.2	33.1	37.8	39.5	65.5	72.6	87.2	101.6	102.7	148.5	176.8	201.2	195.3	191.2
China 1/					71.3	73.4	97.2	137.9	142.4	211.5	246.8	268.8	264.9	272.1
Others	28.2	33.1	37.8	39.5	65.7	72.5	85.4	91.0	91.6	110.6	123.1	141.1	131.8	124.2
Low-Income Developing Countries				20.2	43.6	51.5	73.7	61.9	65.3	61.9	77.3	85.3	87.4	87.8

Table 2. Global Public Debt, 1950–2022
(Percent of GDP, weighted averages)

	1950s	1960s	1968	1970s	1980s	1986	1990s	2000s	2004	2010s	2019	2020	2021	2022
World	56.2	39.8	36.3	33.1	47.6	54.3	62.0	66.5	69.8	81.0	84.9	100.4	96.0	92.4
Advanced Economies	64.0	44.3	39.5	36.1	50.7	57.5	66.4	75.3	76.8	104.6	105.4	124.4	118.7	113.5
Euro Area	32.5	24.7	25.0	27.7	47.0	52.1	67.0	69.9	69.7	90.9	85.9	99.2	97.3	93.2
Japan	13.1	10.1	11.8	23.4	64.3	74.0	89.0	166.6	169.5	227.5	236.4	258.7	255.4	261.3
United Kingdom	134.0	81.5	70.9	57.5	40.3	41.0	38.1	42.6	39.8	84.7	85.5	105.6	105.9	101.4
United States	69.7	54.4	48.7	43.6	51.6	57.7	66.3	64.1	66.1	104.1	108.7	133.5	126.4	121.4
Emerging Market Economies	15.5	18.8	20.6	21.4	35.6	40.2	41.5	40.9	44.1	44.3	55.7	65.8	64.8	65.2
China 1/							21.2	26.9	26.4	44.3	60.4	70.1	71.8	77.1
Others	15.5	18.8	20.6	21.4	38.6	45.8	46.3	44.7	49.0	44.0	52.0	61.9	58.4	55.3
Low-Income Developing Countries				15.6	36.2	43.2	64.8	45.8	51.2	34.8	42.9	48.5	48.5	48.4

Table 3. Global Private Debt, 1950–2022
(Percent of GDP, weighted averages)

	1950s	1960s	1968	1970s	1980s	1986	1990s	2000s	2004	2010s	2019	2020	2021	2022
World	40.6	61.7	70.0	81.9	96.7	102.5	118.1	130.3	128.8	138.3	144.0	157.6	152.1	145.7
Advanced Economies	46.0	71.1	79.4	97.5	114.6	119.6	135.6	154.1	149.1	162.7	163.4	177.0	171.4	164.4
Euro Area	21.0	43.3	45.7	90.7	97.0	95.2	109.5	144.5	138.9	164.2	160.7	174.4	169.4	161.1
Japan		116.1	116.1	134.1	165.2	168.2	207.1	170.1	164.0	159.4	164.5	183.5	184.4	186.1
United Kingdom		55.6	58.1	59.1	78.3	84.6	115.0	162.5	157.5	163.8	155.3	173.5	163.4	150.8
United States	63.8	86.0	90.0	96.1	111.6	119.2	122.8	154.2	151.6	151.9	151.5	163.9	157.0	152.5
Emerging Market Economies	12.6	14.3	17.2	18.1	29.9	32.4	45.7	60.7	58.6	104.2	121.2	135.4	130.5	126.0
China 1/					71.3	73.4	86.6	110.9	116.1	167.1	186.4	198.7	193.0	195.0
Others	12.6	14.3	17.2	18.1	27.1	26.7	39.1	46.4	42.6	66.6	71.0	79.2	73.4	68.9
Low-Income Developing Countries		4.1	4.6	4.7	7.4	8.3	8.8	16.1	14.0	27.0	34.5	36.9	38.9	39.3

Source: IMF Global Debt Database, 2023

Note: Values in columns indicating decades (e.g., 1950s) report the average debt level during the decade, i.e., 1950-1959. The table further shows select years of interest for the historical debt series, including the most recent years since 2019. The group aggregates are calculated using all countries that reported statistics for at least one debt series. To ensure consistency between total debt statistics and its breakdown to public and private debt, a missing debt series is treated as zero for the purpose of calculating group aggregates whenever the country has never reported such debt series. If a country has reported the debt series before, but has missing values in recent years, the missing values are filled by assuming unchanged nominal debt stock since the latest observation provided.

1/ China's public debt numbers presented in this table cover a narrower perimeter of the general government than IMF staff's estimates in China Article IV reports (see [IMF 2023](#) for a reconciliation of the two estimates). China's private sector debt includes 1/3 of local government financing vehicle debt and the debt of other off-budget government funds.

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Figure 1. Global Public and Private debt, 1950–2022 (Percent of GDP)

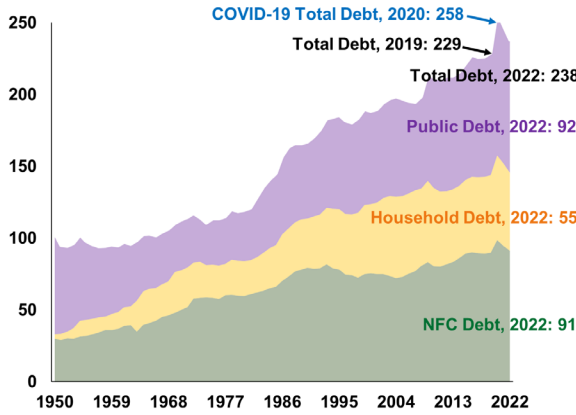


Figure 2. Annual Changes in Public and Private Debt Stocks, 2020–2022 (Percentage points of GDP)¹

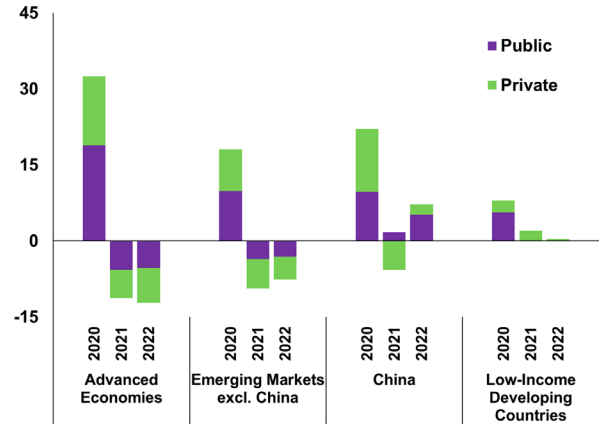


Figure 3 Sovereign Spreads, 2019–2023 (basis points)

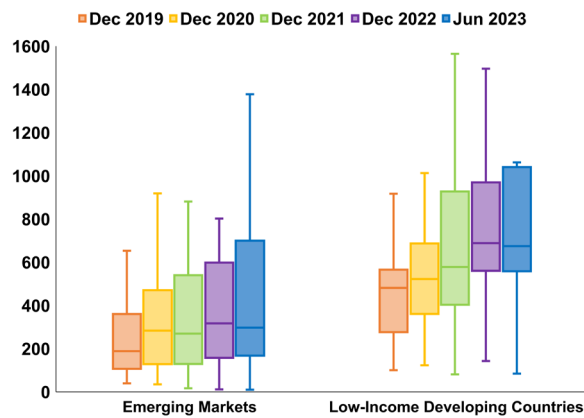


Figure 4. Global Public Debt, 1995–2022 (percent of GDP)^{1,2}

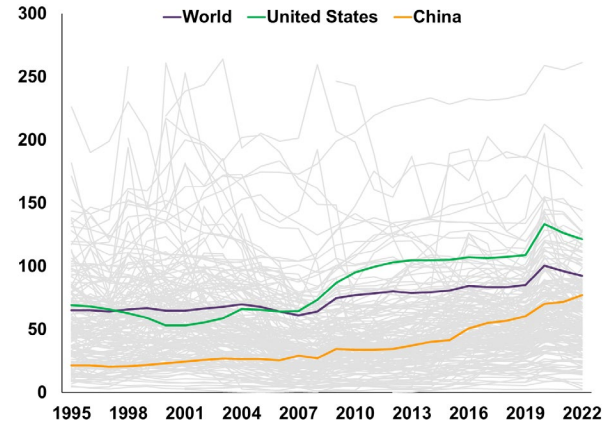


Figure 5. Global Private Debt, 1995–2022 (percent of GDP)²

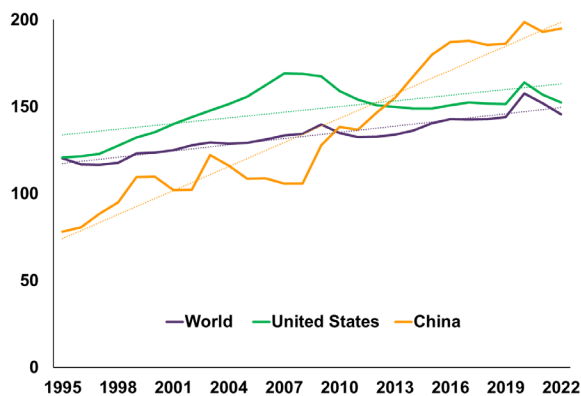
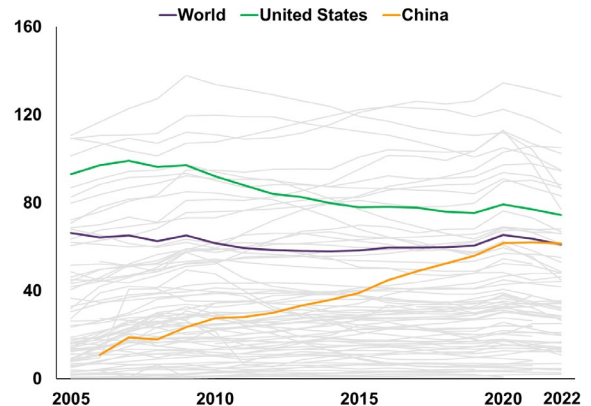


Figure 6. Global Household Debt, 2005–2022 (percent of GDP)²



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Figure 7. Changes in Debts, 1995–2022
(percentage points of GDP; boxplot)^{1,3}

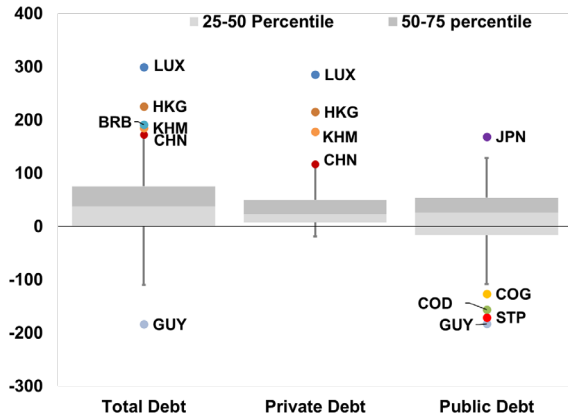


Figure 8. Global Non-Financial Corporate Debt, 2005–2022 (percent of GDP)²

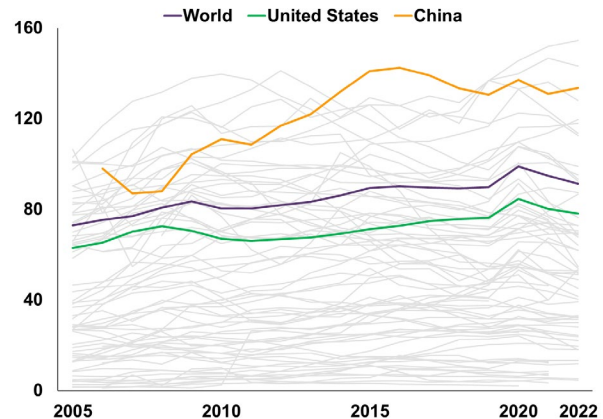


Figure 9. Global Total Debt, 1995–2022
(percent of GDP)^{1,4}

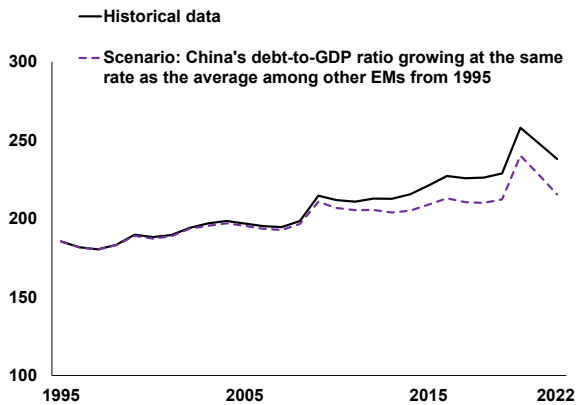
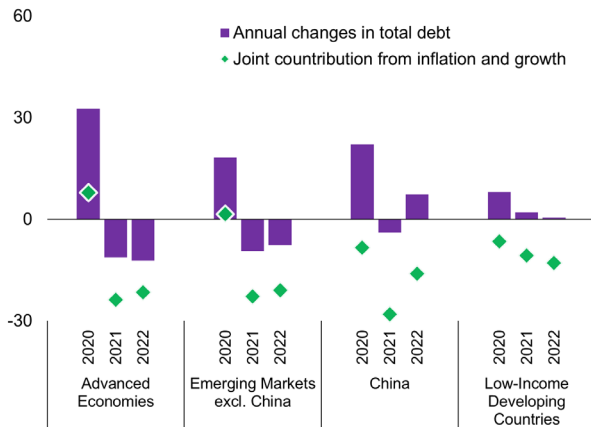


Figure 10. Contribution of real GDP growth and inflation to annual changes in debt, 2020–2022 (percentage points of GDP)⁵



Source: IMF Global Debt Database, 2023; World Economic Outlook, April 2023

Note: The group aggregates are calculated using all countries that reported statistics for at least one debt series. To ensure consistency between total debt statistics and its breakdown to public and private debt, a missing debt series is treated as zero for the purpose of calculating group aggregates whenever the country has never reported such debt series. If a country has reported the debt series before, but has missing values in recent years, the missing values are filled by assuming unchanged nominal debt stock since the latest observation provided.

¹ China's public debt numbers presented in this table cover a narrower perimeter of the general government than IMF staff's estimates in China Article IV reports (see [IMF 2023](#) for a reconciliation of the two estimates). China's private sector debt includes 1/3 of local government financing vehicle debt and the debt of other off-budget government funds.

² Debt-to-GDP ratios above 300 percent are not shown. Figures 4, 6, and 8 include debt data marked in grey for 181, 81, and 82 countries, respectively.

³ The whiskers show the range of 1.5 times of the respective interquartile range.

⁴ The dashed line shows a hypothetical global total debt-to-GDP ratio assuming that China's total debt-to-GDP ratio increased annually at the same rate as the average emerging markets excluding China from its initial level in the database at about 100 percent of GDP in 1995.

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⁵ The contribution of the real GDP growth rate (g) each year is $g/(1+g)$ *debt-to-GDP ratio at the end of the previous year. The direct contribution of the inflation rate (π) each year as $\pi/(1+\gamma)$ *debt-to-GDP ratio at the end of the previous year, where γ is the nominal GDP growth rate during the year under study.