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Rising US & Global Debt: A Perspective Check

Concern has been rising across American society and throughout much of the world about the level of United States government debt. An increasing number of voices are sounding the alarm that the debt level is unsustainable, and crisis is on the way. Debates rage about how such a crisis will begin and when it will happen, but according to the alarmist view, the country will inevitably face financial catastrophe, with grave consequences for the security of the nation and the welfare of its citizens. Is this true? Are we really on a critical path, and is a catastrophic outcome inevitable? It is time to gather the facts and apply sound analysis to give ourselves a well-founded perspective.

This report uses standardized, internationally recognized data for 43 of the largest countries, from the beginning of the century to the present, to analyze US and global debt levels according to broadly accepted methods. It assesses the progression of debt levels across the period, between countries and country groups (i.e., developed and emerging) and between sectors of society (i.e., government and private). Our goal is to provide a fact-based sense of the situation and its trends. The report pays particular attention to the comparison between US and Chinese debt levels, since this plays a role in the geopolitical competition that has emerged. As always, we finish with implications for investors.

Framework For Analysis
With so many available statistics and ways to interpret them, we begin with a review of the most appropriate method to use.

Debt as a Percentage of Gross Domestic Product. To gain perspective on how to best measure debt, we begin with an illustration of an individual person who owns a $300,000 house with a $150,000 mortgage. Is this affordable? If the person has an annual pre-tax income of $150,000 and no other debt, his/her debt-to-income ratio is 100%. What if that same person's pretax income is only $100,000? This raises the debt-to-income ratio to 150%. Even if the person is managing to make the payments, he or she is at a greater risk of failure to make the payment if a crisis, such as a major medical expense, suddenly arises. Affordability depends on a list of factors, but generally, the higher the ratio, the greater the risk that the debt is unsustainable.

These same principles apply to countries. We just need to recognize what data correctly represents debt and income for a country. Debt levels are publicly available for most major countries. Meanwhile, gross domestic product (GDP), the measure of a country's output, is the most commonly available and easily usable approximation of a country's income, since output and income are roughly equivalent on a national level. Fortunately, historical data on debt levels and their percentage of GDP are available for 43 countries, including those of the largest developed economies and the most prominent emerging economies. The Bank for International Settlements (BIS) compiles

and publishes this information for each of these countries according to standardized, uniform methods, enabling comparison among countries and across time. For brevity, we will refer to debt-to-GDP ratio as "D/GDP" or the "debt burden."

Sector Analysis. There is a key difference between an individual person and a country that needs to be understood for debt analysis. Whereas an individual is a single entity with one set of finances, a country has different components, or sectors, with meaningfully different characteristics and contributions to the total financial condition of the country. The primary subdivision is between the government and private sectors. We further subdivide the private sector into businesses (i.e., corporations) and citizens (i.e., households). To avoid double counting bank deposits and loans, we focus only on nonfinancial corporate debt. From a geopolitical perspective, it is the total debt of an entire country that matters most, because each sector contributes to the economic vitality of the country as a whole and its ability to generate and sustain geopolitical power. Also, debt can be transferred from one sector to another by changes in laws, regulations, and incentives; however, each sector's debt has its own way of impacting the financial health of a country, so we must analyze both the sum and the parts to get the whole picture.

Changes Across Time. Changes in debt levels matter almost as much as the debt levels themselves. Returning to the example of the individual, consider a household with a debt-to-income ratio of 100% that has been stable for years. This suggests a high level of sustainability, and perhaps the ability to responsibly increase debt, if need be. Now consider a second household that also has a 100% debt-to-income ratio, but one that was only at 50% a few years before and whose level is rapidly rising. Such a trend would naturally inspire questions concerning financial health and sustainability. In the same way, we examine the patterns and trends in country debt burdens.

Changes Among Countries. Generally, individual citizens and households do not strive against each other for power, security, or prosperity, but countries do. This means that we must compare D/GDP trends, especially for those countries that are geopolitically competing against each other. If one country's debt burden seems to be ominously rising, while its main rival's has held steady, this carries strong implications for their future interactions. For countries, relative position matters.

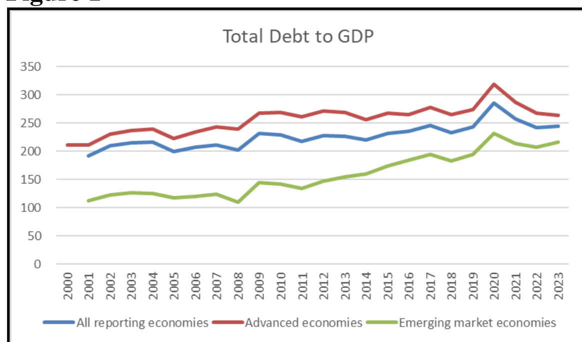
The Broad Trends

The BIS data shows a clear trend of rising debt burdens from the beginning of the century to the present across the BIS's entire set of 43 reporting countries. However, it also reveals significant patterns and comparisons among the various economic classifications, sectors, and countries. This includes meaningful insights about the position of the US.

Advanced vs. Emerging Economies. Advanced economies include the US, Canada, Japan, Australia, New Zealand, and 16 European countries. Emerging economies include a broad variety of less-developed nations ranging from China, Russia, and India to several countries in Southeast Asia, South America, and Eastern Europe. Although total debt levels have risen for both groups, they have risen far more among the emerging economies. As shown in Figure 1, the advanced economies' total D/GDP rose from 210% at the beginning of the century to 264% in 2023 (a 54% rise), while the emerging economies' debt burden

rose from 113% to 216%. Even though this rise brought it to roughly the level of advanced economies in 2000, emerging economy D/GDP has doubled this century. From 2000 to 2023, the gap between the advanced and emerging total D/GDP shrank from 97% to 48%, roughly half the turn-of-the-century gap.

Figure 1

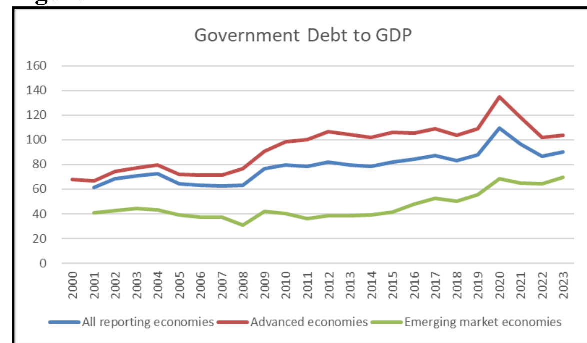


(Source: Bank for International Settlements)

A deeper analysis of the data reveals that rising private-sector debt in emerging economies accounted for the vast majority of the gap closure[1] (see Figures 2 and 3):

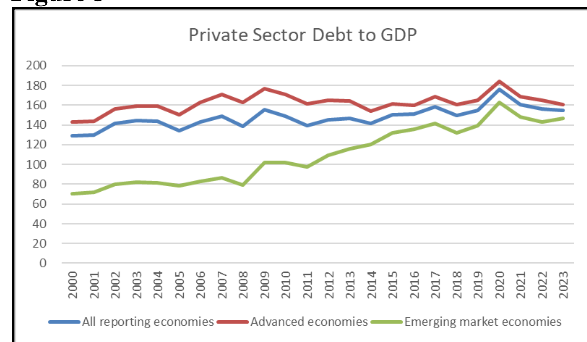
- Government D/GDP increased 37% in the advanced economies and 28% in the emerging economies.
  - Advanced: 67% to 104%
  - Emerging: 41% to 69%
- Private sector D/GDP increased 18% for advanced and 76% for emerging.
  - Advanced: 143% to 161%
  - Emerging: 71% to 147%
- Within the non-financial corporate subsector, D/GDP increased 2% in the advanced economies and 41% in the emerging economies.
  - Advanced: 87% to 89%
  - Emerging: 57% to 98%
- Within the household subsector, D/GDP increased 8% for advanced and 27% for emerging.
  - Advanced: 64% to 72%
  - Emerging: 22% to 49%

Figure 2



(Source: Bank for International Settlements)

Figure 3



(Source: Bank for International Settlements)

Clearly, debt levels have been rising throughout the world. In both advanced and emerging economies, as well as in every sector and subsector, D/GDP rose across the range of available data. The one conspicuous exception to this trend was within the household subsector of the advanced economies since the 2008 Global Financial Crisis. In the advanced economy household subsector, the D/GDP ratio declined from a peak of 84% to 72% as people worked to clean up their balance sheets after the US housing bubble burst. We also observe that the spike in debt caused by COVID-response measures in 2020 has largely been reversed.

[1] Corporate and household subsector data for emerging economies are available only from 2008 forward.

Country-Level Extremes. The data reveals certain countries whose debt positions made extraordinary moves, taken both in isolation and relative to the rest of the world.

Six countries registered total D/GDP increases that stand out from the rest: Hong Kong,[2] Luxembourg, China, France, Greece, and South Korea. All of these reported greater than 100% increases, with the first two increasing more than 200%.

- Hong Kong's D/GDP rose extraordinarily across all sectors; however, changing policies in the wake of the Global Financial Crisis inspired an extreme move by corporate borrowers from bank lending into the bond market.
- Luxembourg has similarly served as a haven for European and non-European companies to issue bonds due to attractive legal codes, lower restrictions, and corporate borrowing driving the increase.
- China's rising D/GDP reflects notable increases in each sector; however, it registered the highest (tied with Hong Kong) increase of household debt in the entire reporting group.
- France and South Korea both saw generally high increases in both the government and private sectors.
- Greece exemplified a pattern observed in several countries (Japan being another notable example) in which the government increased its debt in an extreme amount relative to the entire group, while the private sector restrained itself. Greek households, in particular, reduced their D/GDP by 11%.

Only four countries registered outright reductions in their total D/GDP: Saudi Arabia, Israel, Indonesia, and Germany.

- Saudi Arabia's government dramatically reduced its D/GDP during the first part of the century, from 87% to almost zero. It has risen back to 26% over the last 10 years.
- Israel is another of the 10 governments to reduce its D/GDP during the period (-17%), while its private sector logged nearly no change.
- Indonesia's government reduced its D/GDP by a relatively large 29%, but its private sector showed modest increases in both corporate and household subsectors.
- Germany's government has returned to its 2000 level after a transitory increase in D/GDP mid-period; however, German households have reduced their debt.

Position of the US. In this section, we focus on the US position relative to the list of countries. In 2000, US total D/GDP ranked 15th highest of the 43 reporting countries. In 2023, it was virtually unchanged as the 14th highest. Its debt burden did rise from 188% to 256%, but this change put it right in the middle of the pack. The US government more than doubled its D/GDP, from 51% to 106%, and this was the sixth largest governmental increase. It crossed the 100% threshold in 2011 due to measures taken in response to the Global Financial Crisis and has remained tightly in the low-100s range since then. Meanwhile, the US private sector's D/GDP increase ranked 31st, well below the average. In particular, US households reduced their D/GDP by 20%, the sixth largest decline. US government D/GDP is now the seventh highest in the group; however, even at this level it is less than half of Japan's level at the turn of the century, and its change over the period is just more than half of Japan's change. We emphasize this point because Japan's

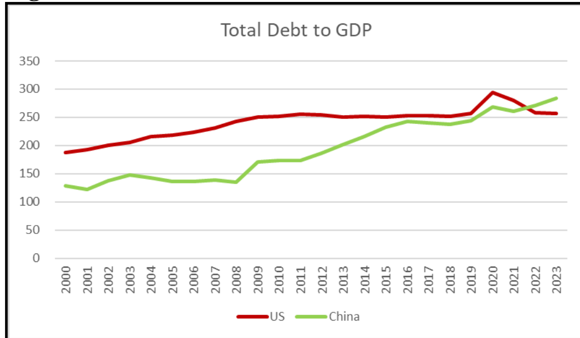
[2] Hong Kong reports to BIS separately from China.

economy is broadly similar to the US and its debt burden has not led to catastrophe.

US-China Comparison
The comparison of US and Chinese debt provides further detail on the US position, especially relative to its chief geopolitical rival.

Total-Country Debt. In 2023, China's D/GDP surpassed that of the US for the first time (see Figure 4). This marked a major change from the turn of the century when China's D/GDP was 60% less than the US debt burden (128% vs. 188%). US D/GDP rose to 250% in 2009, and from that point it has remained extremely stable, between 250% and 256%, with the exception of the three-year COVID-response bubble, which has entirely reversed. Meanwhile, after remaining stable through 2008, China's debt and debt burden in 2009 began a long march upward, nearly constantly rising to its current level. If anything, total US D/GDP displays a slight downward trend, while the Chinese trend remains clearly upward. At this point in history and as a nation, by our preferred measure, China is more indebted than the US.

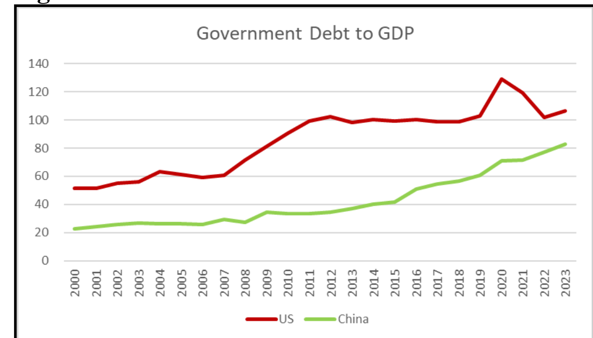
Figure 4



(Source: Bank for International Settlements)

Government Debt. On a relative basis, the Chinese government sector's reported D/GDP ratio has only slightly closed the gap with the US government this century (see Figure 5). Although Chinese government D/GDP was 28% less than that of the US in 2000, it was 23% less in 2023. As previously explained, the US government's D/GDP ratio increased more than a decade ago, whereas the Chinese government's reported D/GDP, which started its ascent in 2009, has steadily increased since then, and that trend continues unabated. It experienced no COVID-response spike. If current trends were to continue, Chinese government D/GDP would eclipse US government D/GDP by the end of the decade. Indeed, it may actually already be there, since it is widely recognized that China's provincial and local governments have huge amounts of hidden, off-budget debts that probably aren't captured in the country's officially reported figures. Those debts stem from Beijing's long-held investment-led development strategy.

Figure 5

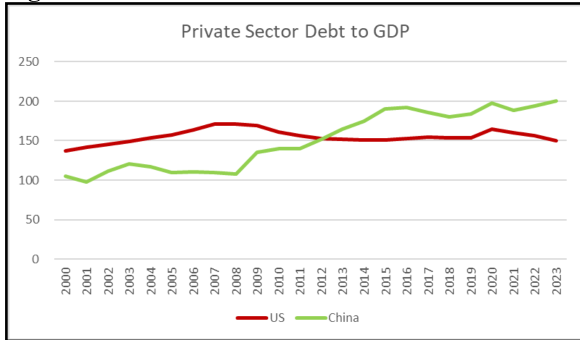


(Source: Bank for International Settlements)

Private Debt. The private sector reveals a stark contrast between US and Chinese debt (see Figure 6). In 2000, US private D/GDP was 32% greater (137% vs. 105%). In 2012, Chinese private sector D/GDP eclipsed that of the US and is now 50% greater (200% vs. 150%). In fact, after peaking at 170% during the Global Financial Crisis, the US private sector executed a major reduction in debt, and its D/GDP has been remarkably stable for the last 12 years. Meanwhile, Chinese private sector debt embarked on its own long march upward in 2009, and it continues this upward trajectory. The big rise in

China's private debt levels is also a reflection of the country's investment-led economic development strategy, with its particular focus on real estate development. Chinese real estate developers are especially highly indebted.

Figure 6



(Source: Bank for International Settlements)

This trend manifests itself in both the corporate and household subsectors. Whereas corporate America has seen a slight and gradual increase in its D/GDP over the course of this century, Chinese corporations dramatically increased their D/GDP from 2008 to 2015 (see Figure 7). They have come down from the peak of that year but remain well above early-century levels.[3]

Figure 7

(Source: Bank for International Settlements)

The picture for households is even more dramatic. From its height of nearly 100% in 2007 (on the eve of the Global Financial Crisis), the American household has steadily reduced its D/GDP, down to the 2023 level of 73%. Meanwhile, over that same period, the Chinese household has levered up from a D/GDP of 11% to 62% (see Figure 8).

Figure 8

(Source: Bank for International Settlements)

Summary

Viewed in isolation, the rise in the US government debt level certainly can seem alarming. Any time we hear the words "trillion" and "deficit" in the same phrase, it is perfectly reasonable to feel a sense of concern. Nevertheless, the numbers tell a different, more reassuring story.

- By the most important measure — debt as a percentage of GDP — the level and trend of US debt appears manageable and even relatively stable.
    - Even US government debt, which has clearly risen and probably requires some measure of curtailment, has been surprisingly stable for more than a decade.
    - Private sector US debt is remarkably healthy.
- With few exceptions, the 21st century has seen debt levels of the global economy significantly rise, especially among emerging economies; however, the relative position of the US has, again, been remarkably stable.
- Among the countries of the world whose 21st century debt trends show the most

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[3] Chinese private subsector data is available from only 2006 forward.

cause for alarm, China ranks high on the list by most measures (see Figure 9).

Investment Implications

The analysis in this report suggests two main implications:

- The alarmist view of US government debt to which we alluded in our introduction is not realistic or grounded in facts. We do not necessarily expect a near-term catastrophe in US or Western financial markets as a result of rising US government debt.
- On the other hand, debt burdens in the US and the rest of the world have, in fact, risen and continue to rise. This has increased the risk of burdensome interest payments and potential financial crises at some point in the coming years.

In our view, this will most heavily impact long-term bonds of all types. Rising debt burdens and an increased risk of default could prompt a "buyers' strike" at some point. The reduced demand would drive down bond prices. Long bonds may also yield disappointing real returns for investors, since high debt burdens and interest payments will tempt governments and central banks to resort to what is known as "financial repression." This means that, in a scenario of sustained high debt issuance, the government might act to limit the resulting interest costs. Agencies such as the US Treasury and the Federal Reserve might adopt policies to keep bond yields artificially low, such as by forcing banks to buy and hold more Treasury bonds. The Federal Reserve could also adopt "yield curve control," in which it would cap long-term yields by buying up Treasurys. While this may seem implausible to many investors, it's important to remember that there is precedent for this policy. Indeed, financial repression was used in the decades after World War II to help the US weather the debt overhang left after the war ended. The implication for bond investors is that the yields on their future government bonds may not keep up with consumer price inflation and thus their purchasing power may slowly erode over time.

Additionally, as we have explained in detail in previous reports, we expect the trend of global fracturing and the formation of competing blocs led by the US and China to continue. This means that investors will no longer have the same level of access to all global financial and capital markets as they have had in the past. For US investors, it will become harder to invest in markets within the China-led bloc. It has been our view that the democratic, capitalist, market-oriented economies of the US-led bloc are well positioned to eventually adjust, thereby providing increasingly competitive opportunities for investors. The relative levels and trends of debt in the US and China — the former being surprisingly stable and healthy and the latter showing increasing signs of questionable health — reinforce this view.

By further implication, the US dollar may prove to be healthier and stronger than many anticipate. Since the US debt situation (despite the questions surrounding it) is better than those of many other countries, and especially those of the competing bloc, foreign investment capital will likely continue to flow to US investment opportunities and US capital markets. Naturally, this requires use of the US dollar, which should sustain long-term high demand for the currency.

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Figure 9

Country Rankings by Level of Debt
Debt / GDP, 2021-2023 Avg.
Source: Bank for International Settlements, 2024

Total Credit to Non-Financial Sector			Credit to Govt Sector			Credit to Private Non-Financial Sector			Credit to Private Corporate Sector			Credit to Private Household Sector		
	Highest			Highest			Highest			Highest			Highest	
1	Hong Kong SAR	448	1	Japan	225	1	Luxembourg	394	1	Luxembourg	326	1	Switzerland	129
2	Luxembourg	418	2	Greece	185	2	Hong Kong SAR	369	2	Hong Kong SAR	274	2	Australia	113
3	Japan	409	3	Singapore	154	3	Switzerland	274	3	Sweden	171	3	Korea	103
12	China	271	9	USA	109	12	China	194	10	China	133	13	USA	75
15	USA	265	17	China	77	21	USA	156	23	USA	80	19	China	62
	Lowest			Lowest			Lowest			Lowest			Lowest	
3	Saudi Arabia	98	3	Saudi Arabia	26	3	Indonesia	41	3	Indonesia	24	3	Mexico	16
2	Indonesia	80	2	Luxembourg	24	2	Mexico	39	2	Mexico	23	2	Turkey	12
1	Mexico	78	1	Russia	20	1	Argentina	27	1	Argentina	22	1	Argentina	4

Country Rankings by Change in Level of Debt
Debt / GDP, 2000-2002 Avg. to 2021-2023 Avg. *
Source: Bank for International Settlements, 2024

Total Credit to Non-Financial Sector			Credit to Govt Sector			Credit to Private Non-Financial Sector			Credit to Private Corporate Sector			Credit to Private Household Sector		
	Highest			Highest			Highest			Highest			Highest	
1	Hong Kong SAR	265	1	Japan	99	1	Luxembourg	234	1	Hong Kong SAR	126	1	Hong Kong SAR	39
2	Luxembourg	250	2	Greece	75	2	Hong Kong SAR	207	2	Luxembourg	43	2	China	39
3	China	142	3	UK	67	3	Sweden	100	3	Switzerland	40	3	Thailand	34
3	China	142	6	USA	57	4	China	89	7	China	28	2	China	34
14	USA	71	9	China	53	31	USA	14	20	USA	8	38	USA	-20
	Lowest			Lowest			Lowest			Lowest			Lowest	
3	Indonesia	-16	3	Russia	-33	3	Malaysia	-11	3	New Zealand	-31	3	Spain	-32
2	Israel	-17	2	Turkey	-42	2	Germany	-15	2	Ireland	-37	2	Denmark	-41
1	Saudi Arabia	-26	1	Saudi Arabia	-66	1	Argentina	-17	1	Spain	-44	1	Ireland	-85

** Corporate & household sector beginning avgs. 2008-10 due to limited data.*

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