

Capital Markets Strategy

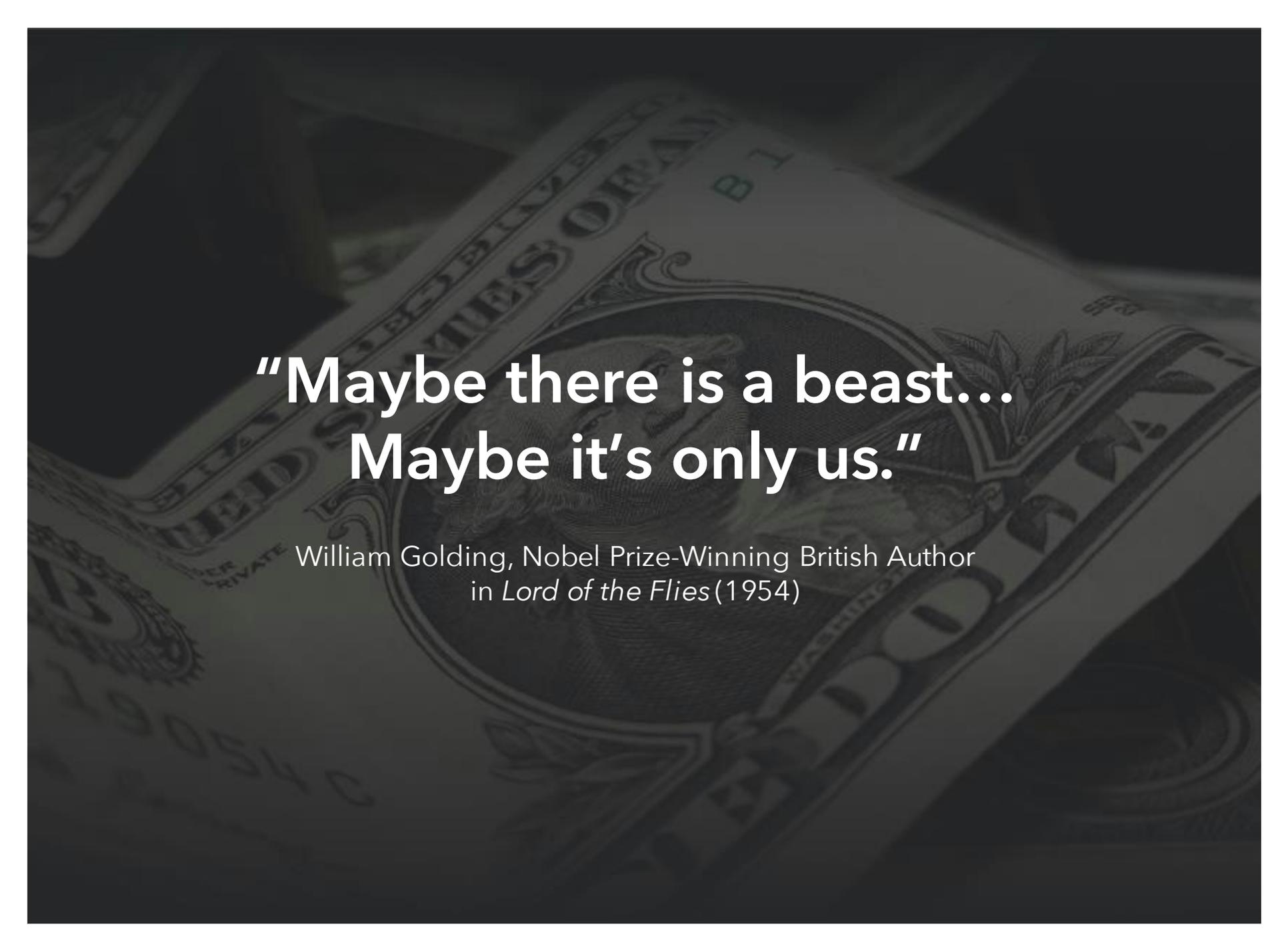
Essential insights for the C-Suite



After the Downgrade

Implications of the Fitch Ratings Action on US Government Debt

AUG 2023



**"Maybe there is a beast...
Maybe it's only us."**

William Golding, Nobel Prize-Winning British Author
in *Lord of the Flies* (1954)

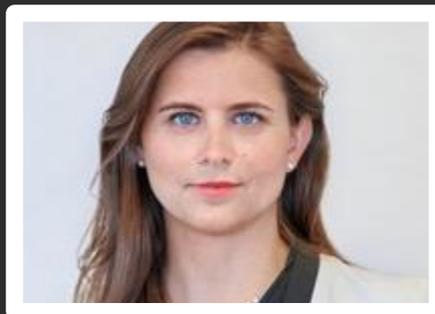
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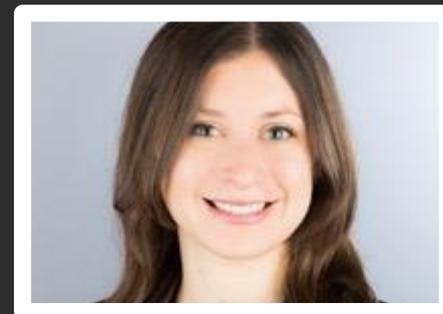
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1.
10 Observations on the
Fitch Ratings Downgrade

10 Observations on the Fitch Ratings Downgrade

1

Many have questioned the timing of the Fitch downgrade decision. Looking back, we would observe that: (i) the deterioration in US credit metrics has been a long-time coming; (ii) the June 1st debt ceiling resolution was particularly fractious and “last minute”; and (iii) the downgrade came one week after the US Treasury expanded its post debt ceiling issuance plans from \$733bn to > \$1 trillion. Looking ahead, announcing the downgrade in August moves well ahead of the 2024 US Presidential election cycle.

2

Implications of the Fitch downgrade are likely to reverberate more politically than in markets or the economy. Politically, and counter-intuitively, the downgrade may actually increase the probability of a US Gov't shutdown in October as Republicans are now more likely to demand spending cuts in exchange for agreement.

10 Observations on the Fitch Ratings Downgrade

3

The US Dollar's role as "the" global reserve currency is still very much intact following the Fitch downgrade (TINA - there is no alternative). Further, we do not expect a substantive change in global central bank holdings of USTs over the near term.

4

Most asset managers have rewritten their guidelines over the last 12 years, since the S&P downgrade in 2011, and now refer specifically to Treasuries, or US Government debt, and NOT their AAA ratings. We therefore do not anticipate any forced selling of USTs by government-focused mutual funds or money market funds.

10 Observations on the Fitch Ratings Downgrade

5 Regulatory regimes have also been rewritten over the last 12 years to not reference AAA ratings. As such, USTs will continue to have a 0% risk-weighting following the Fitch downgrade for bank capital and liquidity considerations.

6 USTs also play a critical role as collateral in tens of trillions of global derivative contracts. Given that CFTC and CME guidelines only reference Treasuries, and not their ratings, we do not expect any material forced unwinds of repos or derivative contracts, nor margin calls on futures exchanges and clearinghouses.

10 Observations on the Fitch Ratings Downgrade

7 While Fitch downgraded the US Issuer Default Rating (IDR) from AAA to AA+, they maintained the “Country Ceiling” rating at AAA, 1 notch above the IDR and at the upper limit of the ratings scale. As such, government linked entities and municipal issuers are not necessarily impacted.

8 Following the US sovereign downgrade, Fitch also downgraded the IDR, senior unsecured debt and government support ratings (GSR) of Fannie Mae and Freddie Mac from AAA to AA+. As government sponsored enterprises (GSEs), the ratings of Fannie and Freddie depend on implicit government support.

10 Observations on the Fitch Ratings Downgrade

9

Fitch cited rising US debt and deficit levels that were inconsistent with the nine other AAA country metrics. At more than 100% of GDP, US debt levels are more than double the standards for AAA and AA peers who average 39.3% and 44.7%, respectively. Projected US deficits of 6.3% in 2023 are well above AAA peer group who have median deficits in the 0% range.

10

Fitch placed significant emphasis on an “erosion of US governance” over the last 20 years in particular, as evidenced by: (i) the failure to address rising deficits; (ii) “repeated debt limit stand-offs and last minute resolutions”; (iii) a complex budgeting process, and (iv) the absence of a medium-term fiscal framework.



2.

Debt & Deficits & Governance Matter

Nine Countries with AAA Ratings

Following Fitch's downgrade of US government debt from AAA to AA+ on August 1, there are now nine remaining countries with AAA ratings from Fitch. Notably, US debt and deficit metrics deviate considerably from the AAA sovereign peer group.

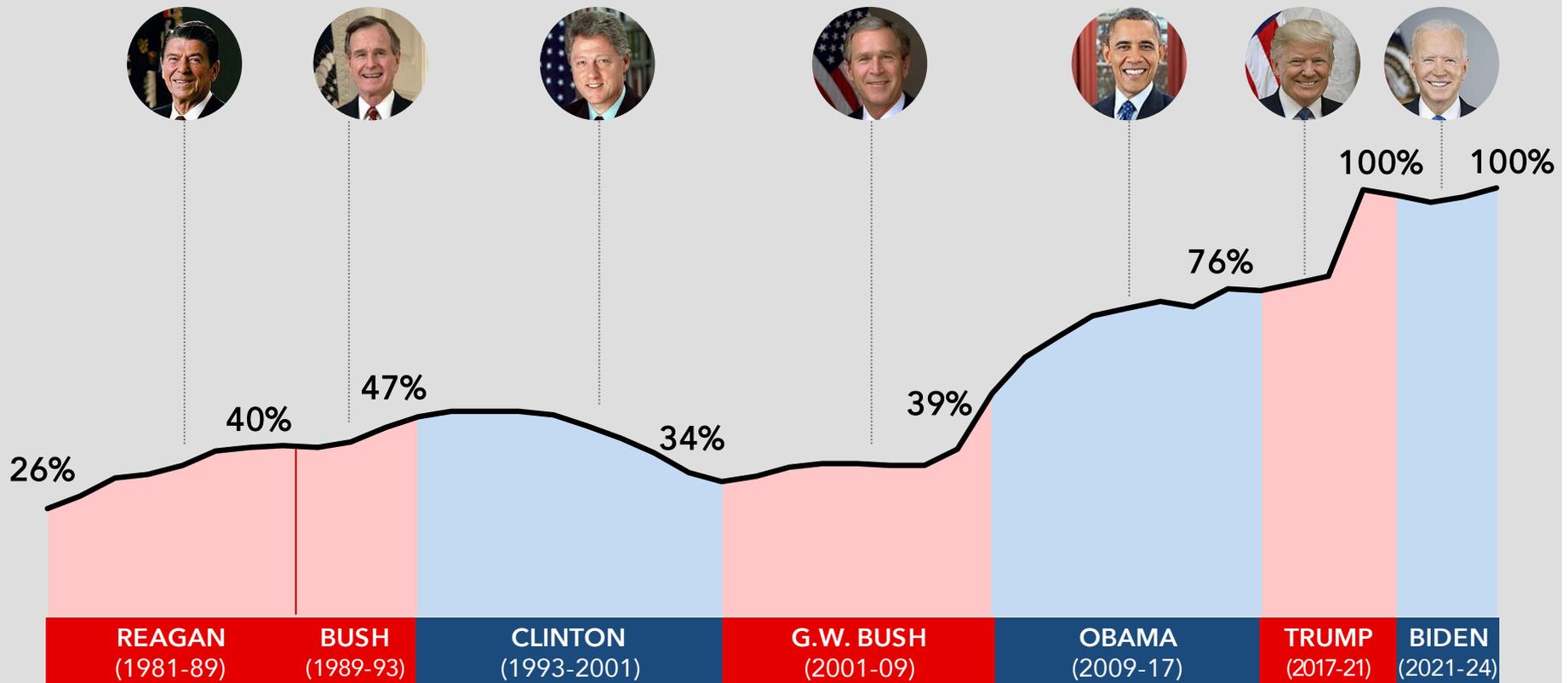
Country	Fitch Rating	GDP, USD bn	General Gov Debt to GDP	Annual Deficit (% of GDP)
 Germany	AAA	\$4,345 bn	65.9%	(-2.3%)
 Australia	AAA	\$1,716 bn	49.1%	(-1.2%)
 Netherlands	AAA	\$1,055 bn	50.5%	(-1.3%)
 Switzerland	AAA	\$853 bn	26.5%	+0.3%
 Sweden	AAA	\$608 bn	30.9%	(-0.1%)
 Norway	AAA	\$568 bn	38.9%	+20.8%
 Singapore	AAA	\$510 bn	39.6%	+6.2%
 Denmark	AAA	\$353 bn	29.9%	+1.4%
 Luxembourg	AAA	\$88 bn	26.1%	(-1.6%)
Median			39.3%	(-0.1%)
 US	AA+	\$26,722 bn	112.9%	(-6.3%)

Source: (1) Fitch Ratings. Debt to GDP and annual deficits are Fitch calculated general government debt and deficits. 2023 estimates.

Debt Matters

US Government Debt has risen above 100% of GDP, more than double the 39% average of the nine countries still rated AAA by Fitch. While debt to GDP has risen most significantly in response to recessions (GFC, COVID), the increase has actually spanned decades and occurred across both Republican and Democratic administrations.

Federal debt held by the public, % of GDP

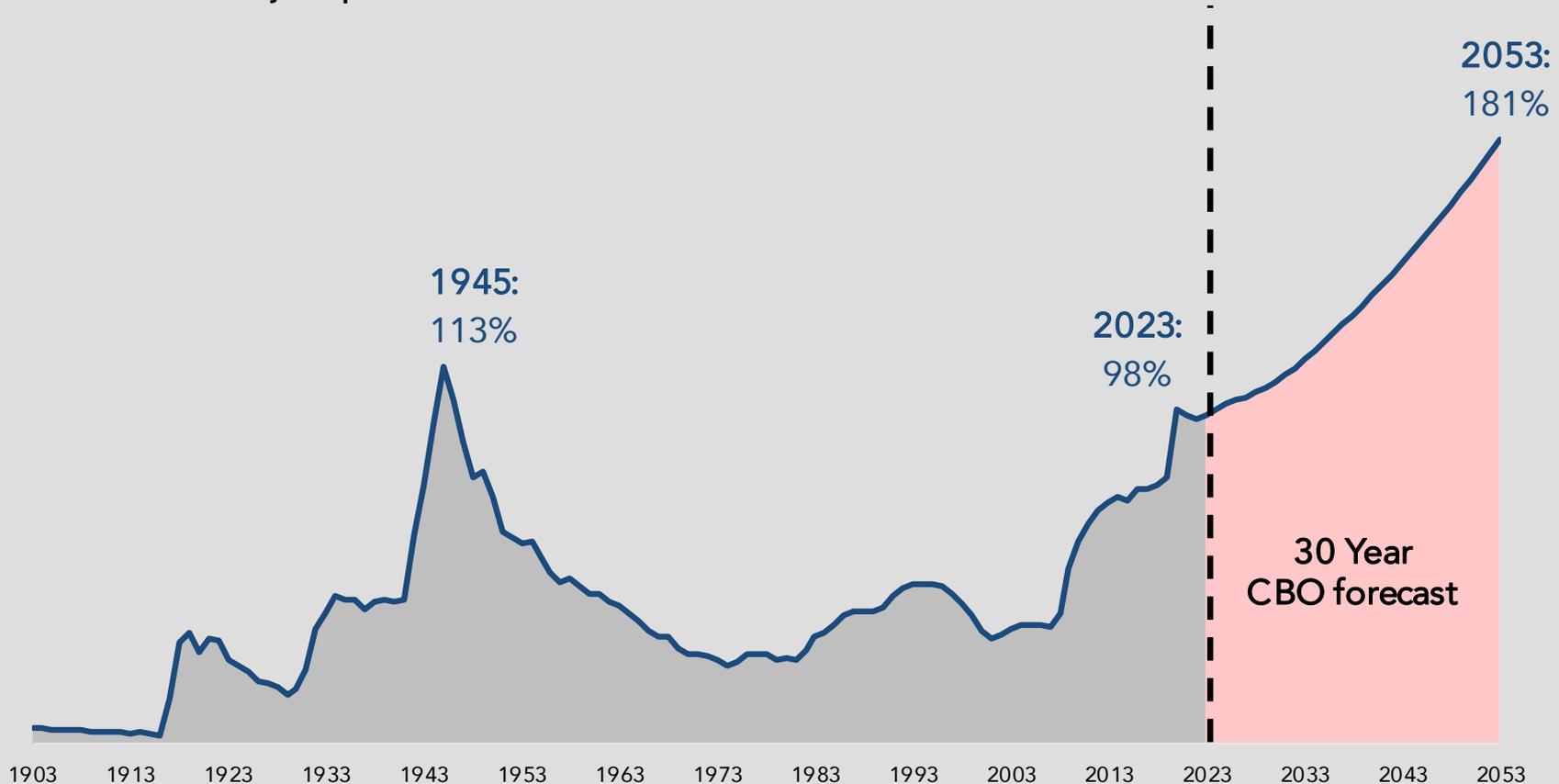


Source: (1) Congressional Budget Office. Long-Term Budget Projections (Jun 2023). Historical Data on federal Debt Held by the Public. 2024 Federal debt is CBO estimate.

Federal Debt to Reach 181% of GDP in 2053

Over the three years since COVID began, US Government debt/GDP increased from approximately 70% to nearly 100% today, a milestone previously not expected to be reached for a decade. Current CBO projections have US debt rising to 115% in 2033, and 181% in 2053.

Federal debt held by the public, % of GDP

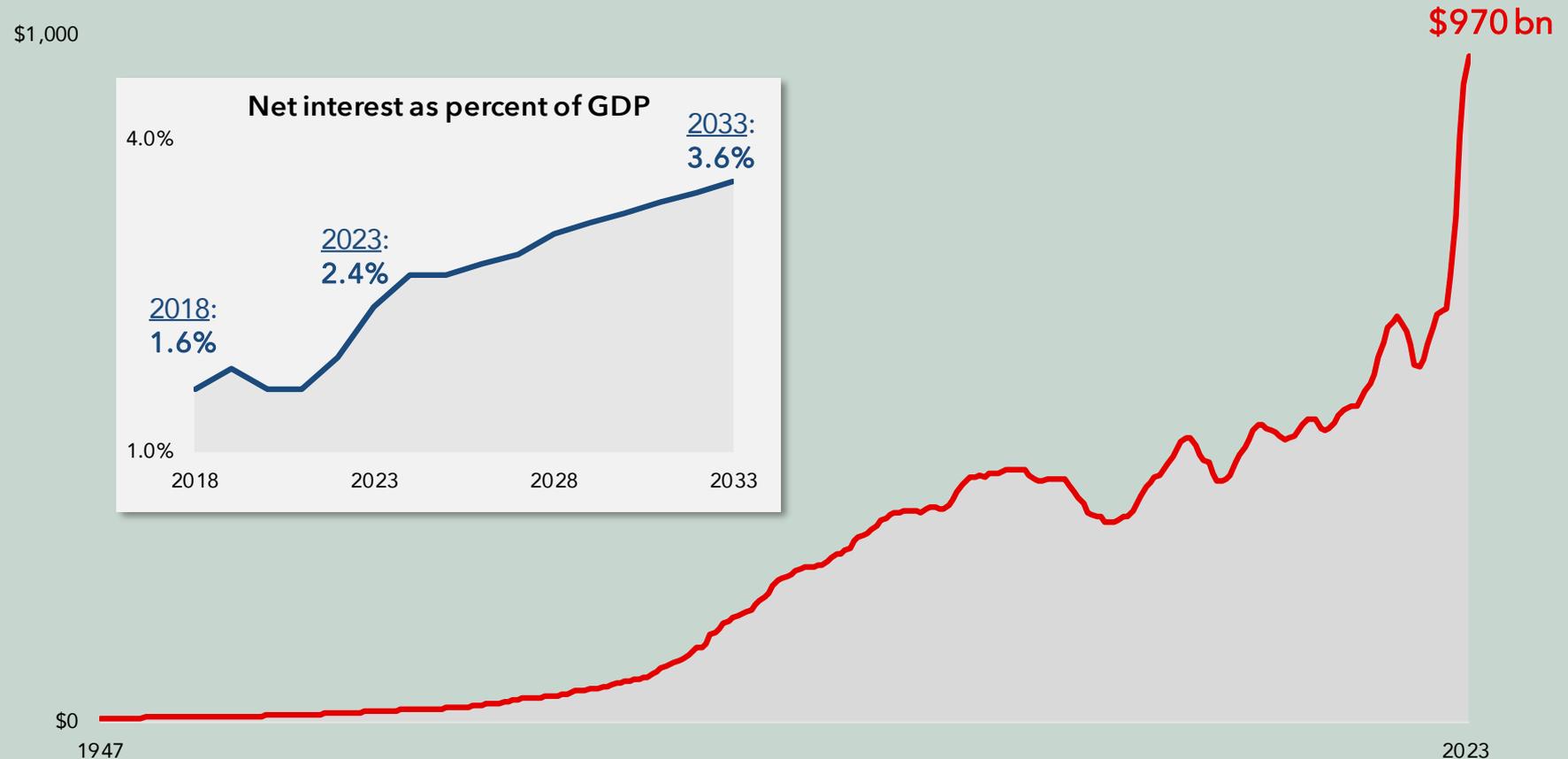


Source: (1) Congressional Budget Office. Long-Term Budget Projections (Jun 2023). Historical Data on federal Debt Held by the Public.

Annual Net Interest Expense Nearly \$1 Trillion

A rapidly rising stock of US debt and higher interest rates are pushing government interest expense outlays sharply higher. In order for US debt levels to remain sustainable, US nominal GDP growth needs to remain well above the annual net interest expense obligations.

US government interest payments, annualized, USD bn

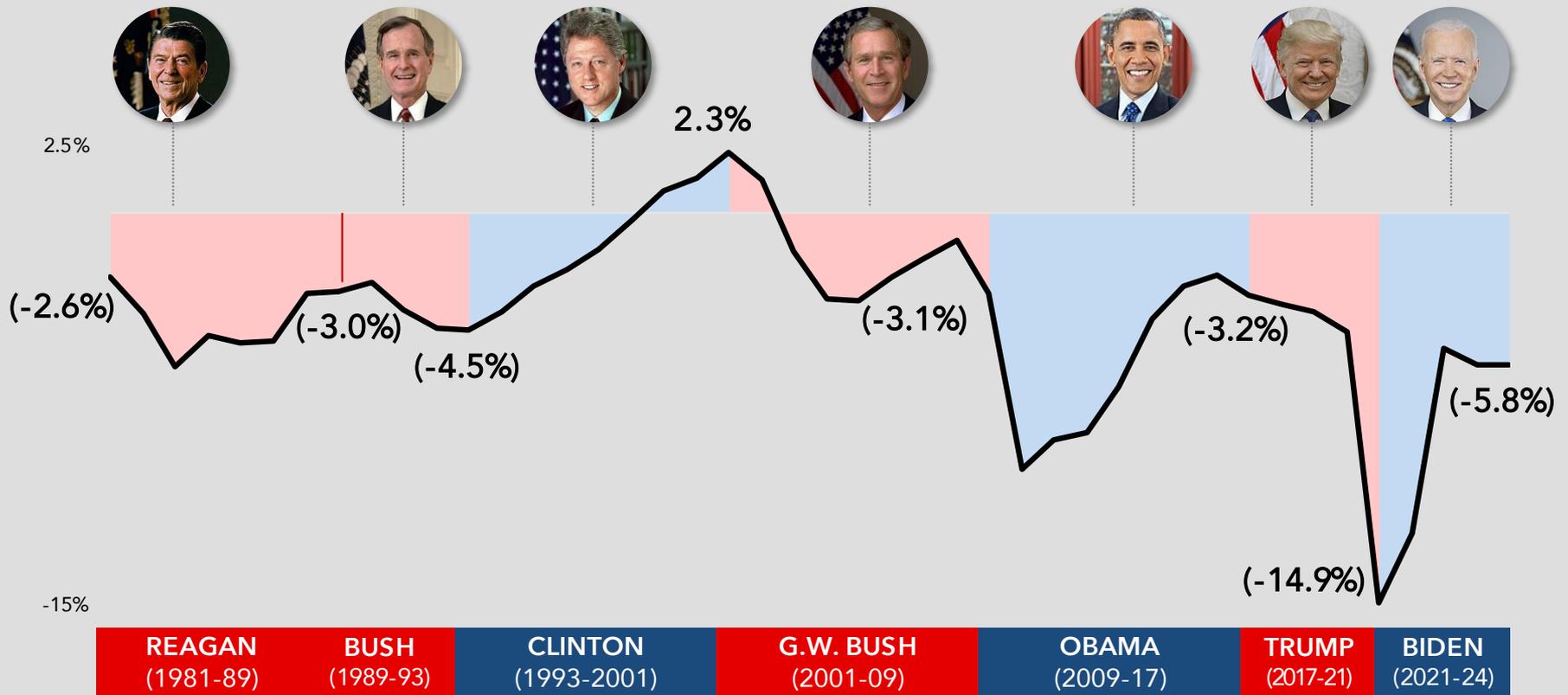


Source: (1) Congressional Budget Office. (2) Bloomberg. Data as of August 8, 2023.

Deficits Matter

The Congressional Budget Office estimates 2023 deficits to be 5.8% of GDP. Fitch highlights cyclically weaker federal revenues, new spending initiatives and a higher interest rate burden as key factors in their August downgrade. With little to no substantive cuts to fiscal spending, and a higher interest rate burden, Fitch estimates the interest-to-revenue ratio could reach 10% by 2025 (vs. 2.8% for median 'AA' rated sovereigns and 1% for 'AAA').

Federal government deficit (or surplus), % of GDP



Source: (1) Congressional Budget Office. Long-Term Budget Projections (Jun 2023). Historical Data on federal Debt Held by the Public.

Governance Matters

In their August 1 downgrade report, Fitch highlighted a substantive “erosion in US Governance standards” that contributed to the ratings downgrade decision.

Governance considerations highlighted:

- Rising partisan acrimony in Washington
- 20 year deterioration in governance standards
- Eroded confidence in fiscal management
- Complex budgeting process
- Repeated debt-limit standoffs / last-minute resolutions
- Lack of medium-term fiscal framework
- Limited progress on social security and Medicare reform
- January 6, 2021 events at the US Capitol

Source: FitchRatings, “Fitch Downgrades the United States’ Long-Term Ratings to AA+ from AAA; Outlook Stable” (August 1, 2023).

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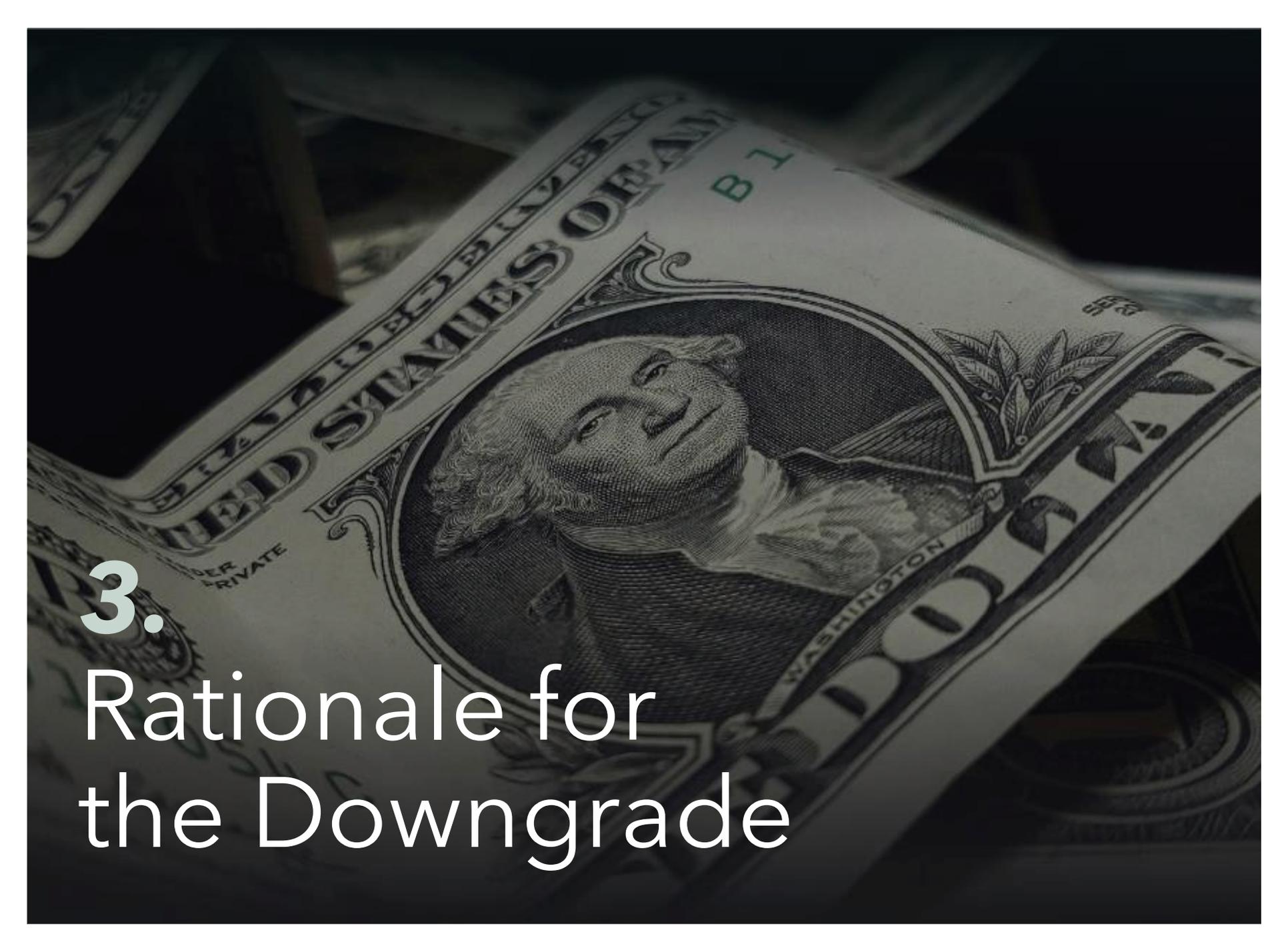
Recurring US Debt Ceiling Stand-Offs

The US Debt Ceiling was created by Congress during World War I with the intent of making it easier for the country to manage its finances and issue debt during a time of war. Since 1941, when the Public Debt Act passed to set a single limit on US debt, the US debt ceiling has been raised nearly 90x.

Years the US debt ceiling was raised since 1940

1940 - 1959	Jun 1940	1960 - 1979	Mar 1967	1980 - 1999	May 1983	2000 - 2023	Jun 2002
	Feb 1941		Jun 1967		Nov 1983		May 2003
	Mar 1942		Jun 1968		May 1984		Nov 2004
	Apr 1943		Apr 1969		Jun 1984		Mar 2006
	Jun 1944		Jun 1970		Oct 1984		Sep 2007
	Apr 1945		Mar 1971		Nov 1985		Jun 2008
	Jun 1946		Mar 1972		Dec 1985		Oct 2008
	Aug 1954		Oct 1972		Aug 1986		Feb 2009
	Jul 1956		Jun 1974		Oct 1986		Dec 2009
	Feb 1958		Feb 1975		May 1987		Feb 2010
Sep 1958	Nov 1975	Aug 1987	Jan 2012				
Jun 1959	Mar 1976	Sep 1987	Feb 2013**				
1960 - 1979	Jun 1960	Jun 1976	Aug 1987	May 2013			
	Jun 1961	Sep 1976	Sep 1987	Oct 2013**			
	Jul 1962	Apr 1977	Aug 1989	Feb 2014			
	Mar 1963	Oct 1977	Nov 1989	Mar 2015			
	Jun 1963	Aug 1978	Aug 1990	Oct 2015**			
	Jun 1963	Apr 1979	Oct 1990	Mar 2017			
	Jun 1963	Sep 1979	Nov 1990	Sep 2017**			
	Jun 1963	Jun 1980	Apr 1993	Mar 2019			
	Aug 1963	Dec 1980	Aug 1993	Aug 2019**			
	Nov 1963	Feb 1981	Mar 1996	Jul 2021			
Jun 1964	Sep 1981	Aug 1997	Oct 2021				
Jun 1965	Jun 1982		Dec 2021				
	Sep 1982		Jun 2023**				

Note: **Indicates debt ceiling suspended rather than raised
 Source: (1) Congressional Research Service.



3.

Rationale for the Downgrade

Aug 1, 2023: Fitch Downgrades US' AAA Rating

On Tuesday, August 1, Fitch Ratings downgraded the US' issuer default rating to 'AA+' Stable Outlook from 'AAA' Negative Watch. While Fitch did affirm the Country Ceiling at AAA, they also downgraded Fannie Mae and Freddie Mac's ratings to 'AA+' from 'AAA'. Fitch's action leaves the US with a Aaa rating from Moody's and AA+ ratings from both Fitch and S&P.

Fitch Downgrades the United States' Long-Term Ratings to 'AA+' August 1, 2023

"The rating downgrade of the United States reflects the expected **fiscal deterioration** over the next three years, a **high and growing general government debt burden**, and the **erosion of governance** relative to 'AA' and 'AAA' rated peers over the last two decades that manifested in **repeated debt limit standoffs and last-minute resolutions.**"

FitchRatings

Source: Fitch Ratings "Fitch Downgrades the United States' Long-Term Ratings to 'AA+' from 'AAA'; Outlook Stable (Aug 1, 2023).

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Fitch Rationale: Erosion of Governance

Erosion of Governance

"In Fitch's view, there has been a **steady deterioration in standards of governance over the last 20 years**, including on fiscal and debt matters, notwithstanding the June bipartisan agreement to suspend the debt limit until January 2025.

The repeated **debt-limit political standoffs** and last-minute resolutions have **eroded confidence in fiscal management**.

Additionally, there has been **only limited progress** in tackling medium-term challenges related to **rising social security and Medicare costs** due to an aging population."

FitchRatings

Source: Fitch Ratings "Fitch Downgrades the United States' Long-Term Ratings to 'AA+' from 'AAA'; Outlook Stable (Aug 1, 2023).

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Fitch Rationale: Rising Deficits

Rising General Government Deficits

"We expect the general government (GG) deficit to rise to **6.3% of GDP** in 2023, from 3.7% in 2022, reflecting **cyclically weaker federal revenues, new spending initiatives and a higher interest burden**.

Cuts to non-defense discretionary spending (15% of total federal spending) as agreed in the Fiscal Responsibility Act **offer only a modest improvement** to the medium-term fiscal outlook.

The **interest-to-revenue ratio is expected to reach 10% by 2025 (compared to 2.8% for the 'AA' median and 1% for the 'AAA' median)** due to the higher debt level as well as sustained higher interest rates compared with pre-pandemic levels."

FitchRatings

Source: Fitch Ratings "Fitch Downgrades the United States' Long-Term Ratings to 'AA+' from 'AAA'; Outlook Stable (Aug 1, 2023).

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Fitch Rationale: Higher Debt

General Government Debt to Rise

"Lower deficits and high nominal GDP growth reduced the debt-to-GDP ratio over the last two years from **the pandemic high of 122.3% in 2020**; however, at **112.9% this year it is still well above the pre-pandemic 2019 level of 100.1%**.

The GG debt-to-GDP ratio is **projected to rise** over the forecast period, reaching **118.4% by 2025**. The debt ratio is over **two-and-a-half times higher than the 'AAA' median of 39.3% of GDP and the 'AA' median of 44.7% of GDP**.

Fitch's longer-term projections forecast additional debt / GDP rises, increasing the **vulnerability of the U.S. fiscal position to future economic shocks.**"

FitchRatings

Source: Fitch Ratings "Fitch Downgrades the United States' Long-Term Ratings to 'AA+' from 'AAA'; Outlook Stable (Aug 1, 2023).

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Fitch Rationale: Fiscal Challenges

Medium-term Fiscal Challenges Unaddressed

"The Congressional Budget Office (CBO) projects that **interest costs will double by 2033 to 3.6% of GDP**. The CBO also estimates a **rise in mandatory spending on Medicare and social security by 1.5% of GDP** over the same period.

The CBO projects that the **Social Security fund will be depleted by 2033** and the **Hospital Insurance Trust Fund** (used to pay for benefits under Medicare Part A) will be **depleted by 2035** under current laws, posing additional challenges for the fiscal trajectory unless timely corrective measures are implemented.

Additionally, the 2017 tax cuts are set to expire in 2025, but there is **likely to be political pressure to make these permanent** as has been the case in the past, **resulting in higher deficit projections.**"

FitchRatings

Source: Fitch Ratings "Fitch Downgrades the United States' Long-Term Ratings to 'AA+' from 'AAA'; Outlook Stable (Aug 1, 2023).

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"Exceptional Strengths" Support US Ratings

Despite downgrading the US' rating, Fitch does highlight several "exceptional strengths" that structurally support the US and its rating.

Exceptional Strengths Support Ratings

"Several structural strengths underpin the United States' ratings. These include its **large, advanced, well-diversified and high-income economy**, supported by a **dynamic business environment**.

Critically, the **U.S. dollar is the world's preeminent reserve currency**, which gives the government **extraordinary financing flexibility**."

FitchRatings

Source: Fitch Ratings "Fitch Downgrades the United States' Long-Term Ratings to 'AA+' from 'AAA'; Outlook Stable (Aug 1, 2023).

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4.

Expectations
for US Rates

Global Government Bond Yields at Multi-Year Highs



Global bond yields are trading near multi-year highs following a post-COVID period of elevated inflation and synchronized global central bank tightening. The recent adjustment in Japan's yield curve control (YCC) policy has contributed to the latest move higher in yields. Given that Japan has \$3 trillion invested in overseas financial assets (\$1.1 trillion in USTs), higher yields in Japan will increase the attraction of repatriation flows back into Japanese assets, thereby driving a paradigm shift in global markets.

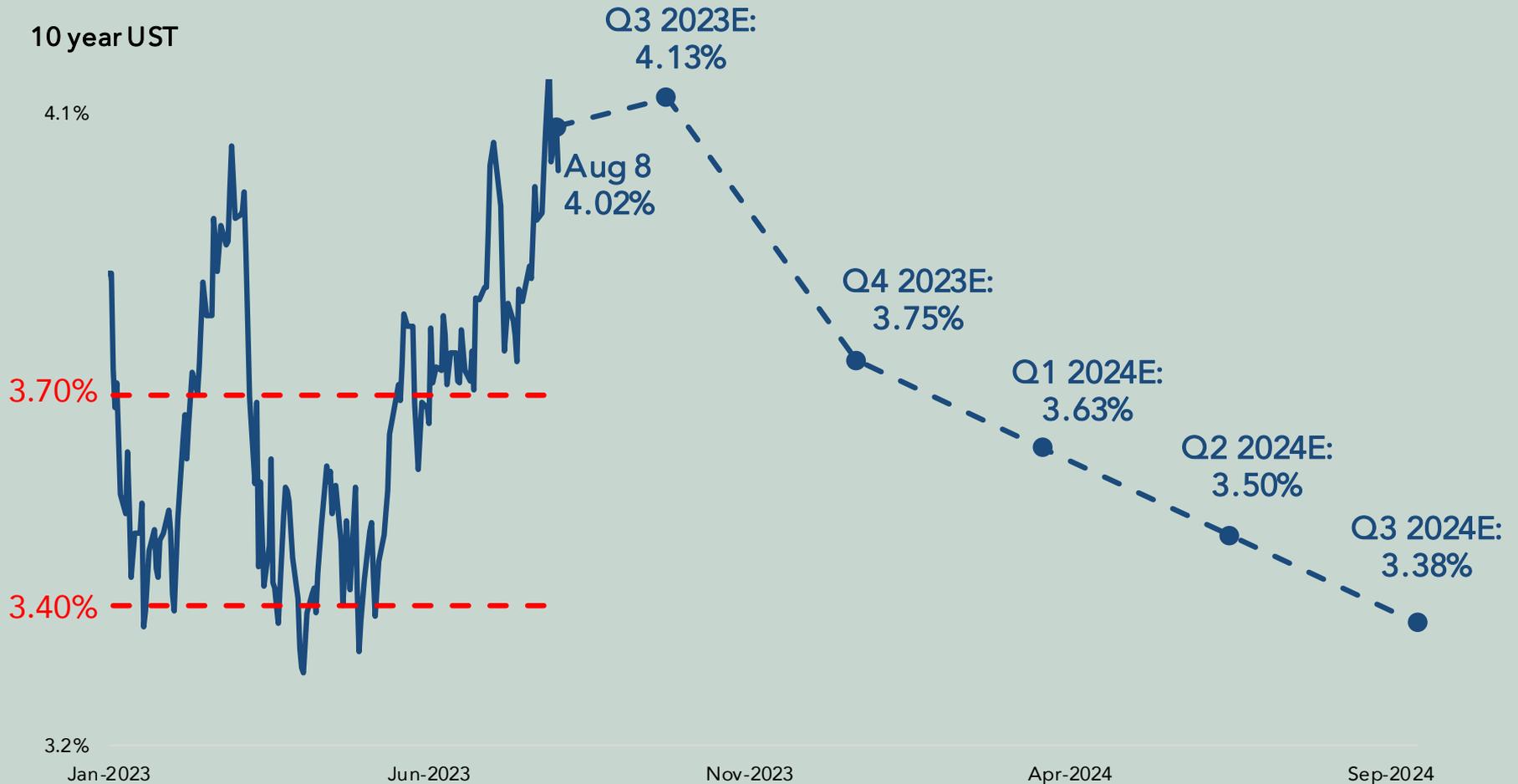
Global government bond index yield



Source: (1) Bloomberg. Data as of August 8, 2023.

Spike in Q3 Rates on Elevated Treasury Supply

MUFG's Head of Macro Strategy, George Goncalves, expects rates to peak in Q3 and move progressively lower over the next year



Source: (1) Bloomberg. Data as of August 8, 2023. MUFG Rate Strategy (George Goncalves).

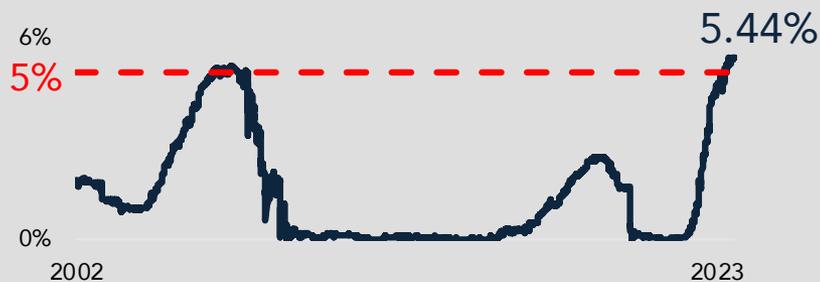
US Treasury Yields Remain Elevated



Resilient US labor market data, elevated US Treasury issuance, the Fitch ratings downgrade and the BOJ's policy pivot have all contributed to the recent uptick in US government bond yields.

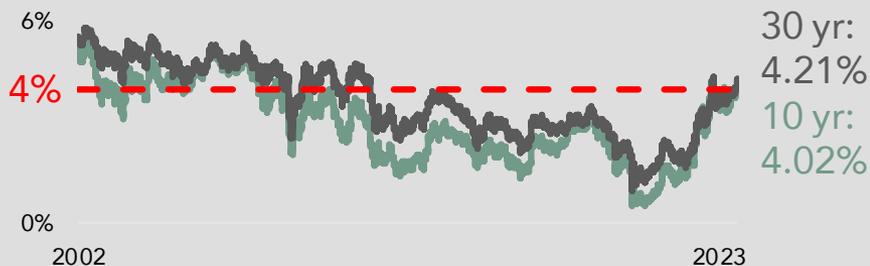
US Front End Yields Highest in 2 Decades

3 month T-bill yield



US Longer End Yields Back Above 4%

10 and 30 year UST yields



Key Drivers of Recent Rate Increase

- Resilient US economic and labor market data
- Modest repricing of peak Fed Funds expectations
- Upward revision to UST issuance from \$733 bn to > \$1 trillion
- BOJ policy pivot on Yield Curve Control
- Unexpected Fitch ratings downgrade of US debt

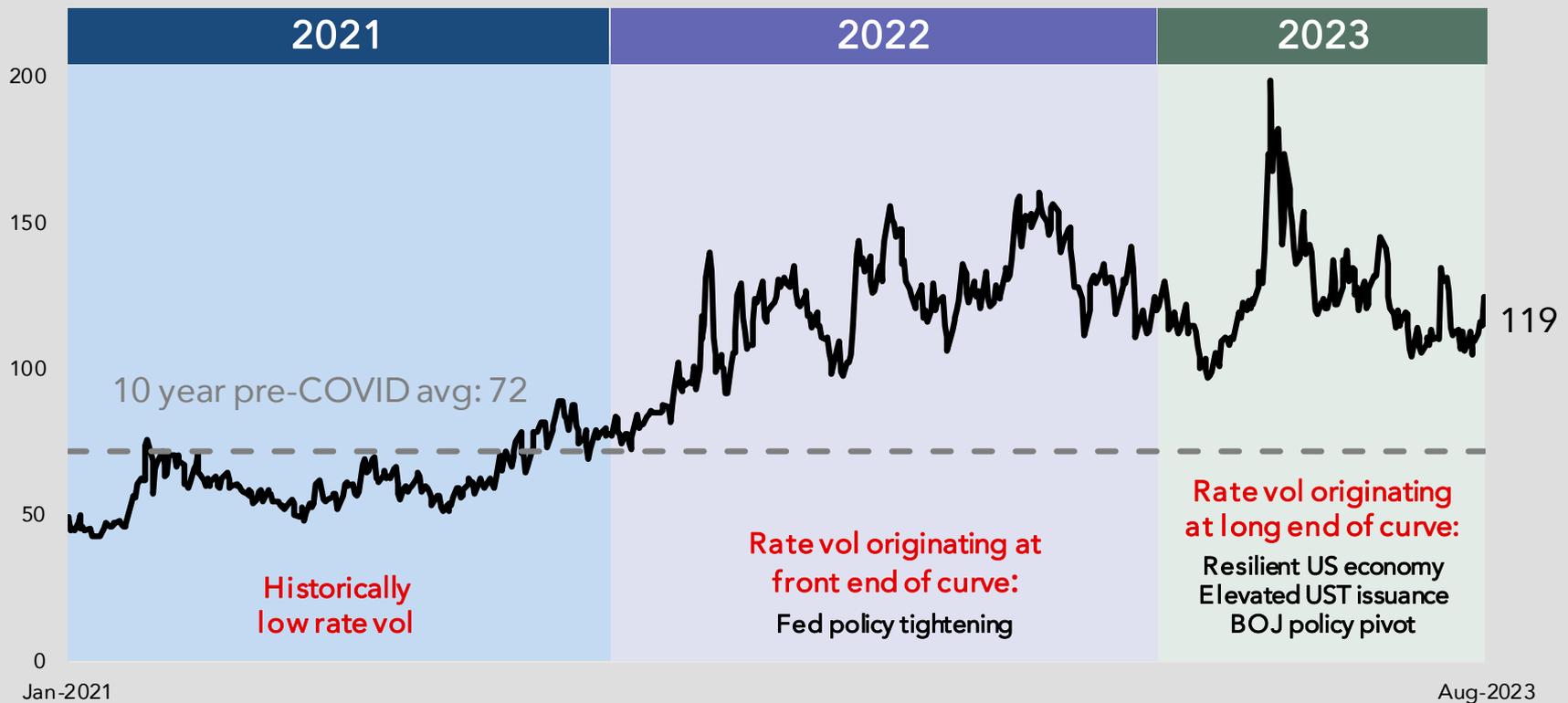
Source: (1-2) Bloomberg. Data as of August 8, 2023.

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Paradigm Shift in Source of US Rate Volatility

US rate volatility remains high; but interestingly, the source of that volatility has shifted. For much of the Fed's tightening cycle, elevated rate vol has originated at the front end of the curve as the Fed increased interest rates at 11 meetings in less than 18 months. Today, however, the prevailing drivers of rate vol are coming from the longer end of the curve as the US Treasury has sharply increased supply, the Fed continues to scale back its balance sheet (QT), and as the BOJ policy shift encourages more repatriation flows back to Japan.

Rate volatility (MOVE index)



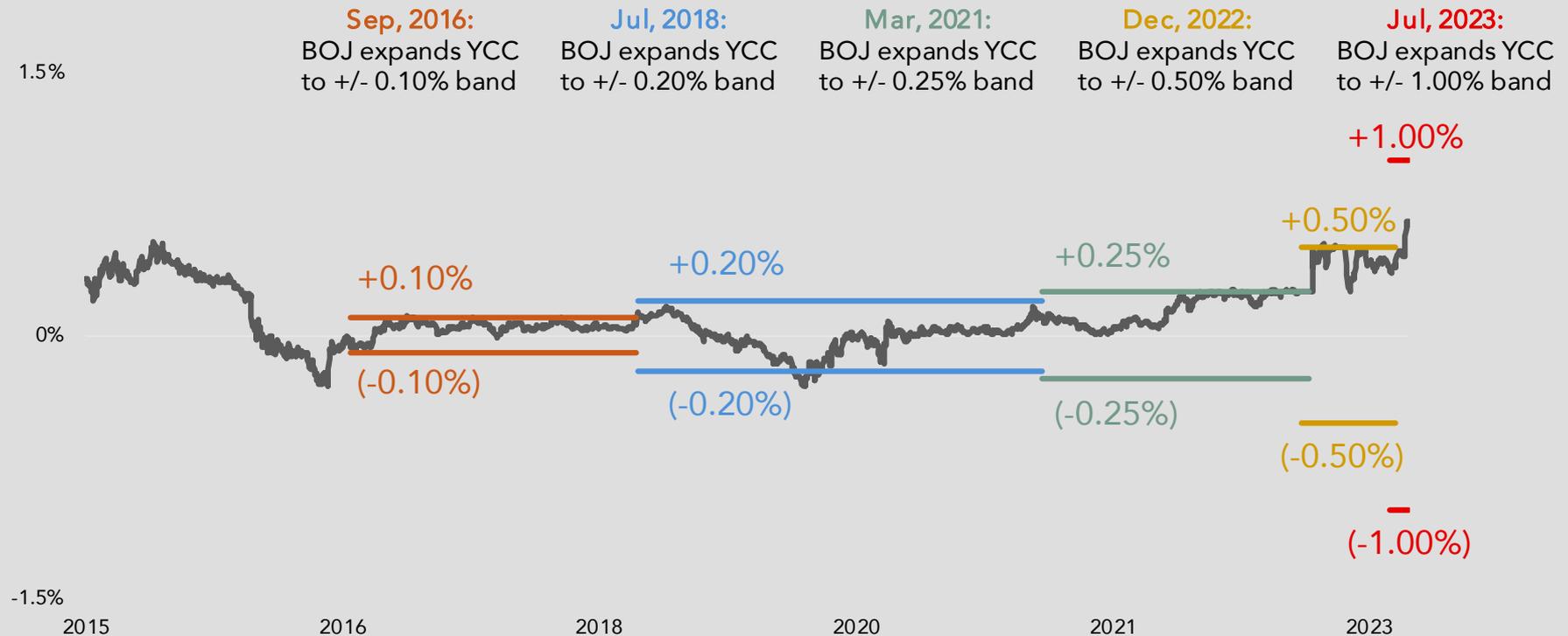
Source: (1) Bloomberg. Data as of August 8, 2023.

Paradigm Shift in BOJ Policy



In December 2022, the Bank of Japan surprised the market by expanding its YCC operations range from +/- 25 bps to +/- 50 bps. On July 28, 2023, the BoJ again surprised markets by maintaining the official target for the 10yr JGB at 0.50% but allowing "flexibility" up to 1% (the yield at which the BoJ will offer to buy 10-yr JGBs at its consecutive fixed-rate purchase operations). Japan has \$3 trillion invested in overseas assets and is the largest holder of US Treasuries (\$1.1 trillion in holdings). The BoJ's YCC policy with "increased flexibility" represents a paradigm shift for global rate policy and capital flows.

Japan 10 year government bond yield



Source: (1) Bloomberg. Data as of August 8, 2023.

Notable Considerations in the BOJ Policy Pivot

- 1 Aimed at addressing the unsustainability of the YCC policy, JGB liquidity concerns, persistent Yen weakness and rising inflation
- 2 Japan has > \$3 trillion invested in overseas global financial markets
- 3 Japan is the largest holder of US Treasury securities (\$1.1 trillion)
- 4 Even modestly higher Japanese yields encourage repatriation flows back into Japan
- 5 The BOJ owns ~50% of all JGBs outstanding, the world's 3rd largest government bond market

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Role

Tom Joyce is a Managing Director and Capital Markets Strategist within MUFG's global capital markets and investment banking business. Based in New York, Tom heads a team that creates customized analytical content for multi-national S&P 500 companies. His team provides in depth analysis on the impact of economic, political, public policy and regulatory dynamics on the US credit, foreign exchange, rates and commodities markets.

Experience

Tom has over 25 years of Investment Banking experience in New York, London, Hong Kong, and San Francisco. Over the last 15 years, Tom created and built the Capital Markets Strategy role, advising corporate C-Suite executives (Boards, CEOs, CFOs, and Treasurers) on the pervasive macro forces driving markets. Tom also presents at dozens of corporate events each year including Board meetings, CEO ExCo sessions, CFO and Treasury off-sites, corporate leadership events and conferences.

Education

Tom's educational background includes a year of study at Oxford University from 1991 - 1992, a Bachelor of Arts in Political Science from Holy Cross College in 1993, and a MBA from Kellogg Business School, Northwestern University in 2000.

Personal

Tom resides in New Canaan, CT with his wife and four sons, where he serves on the Board of Trustees of the New Canaan Library as well as the Holy Cross College President's Council.

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Role

Hailey Orr is a Managing Director in MUFG's Capital Markets Strategy group within the global capital markets and investment banking business. The team provides market based content for corporate clients to assist in strategic decision making. Focus areas include the impact of economic, political, public policy and regulatory dynamics on the US credit, foreign exchange, rates and commodities markets.

Experience

Hailey has a decade of Wall Street experience, including three years as a Consumer Sector Specialist in Equity Sales and seven years as a Capital Markets Strategist. Hailey is also a member of MUFG's Inclusion & Diversity Council and has devoted years to participating in and developing Wall Street recruiting programs.

Education

Hailey graduated with honors from the University of Michigan's Ross School of Business with a BBA and a minor in International Studies.

Personal

In March 2020, Crain's New York Business Magazine named Hailey one of the "Rising Stars in Banking and Finance".



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Role

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Experience

Stephanie has spent over five years as a Capital Markets Strategist. She is an active member of the University of Michigan recruiting team and is focused on the diversity recruiting effort at MUFG. Stephanie is also a part of MUFG's DEI, Culture & Philanthropy (DCP) Council.

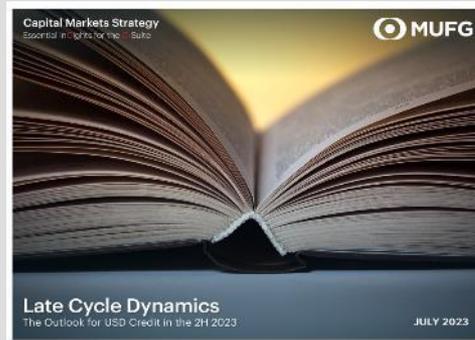
Education

Stephanie graduated with honors from the University of Michigan's Ross School of Business with a BBA.

Personal

Stephanie is actively involved in NYC's iMentor program, mentoring high school students with their journey to college graduation.

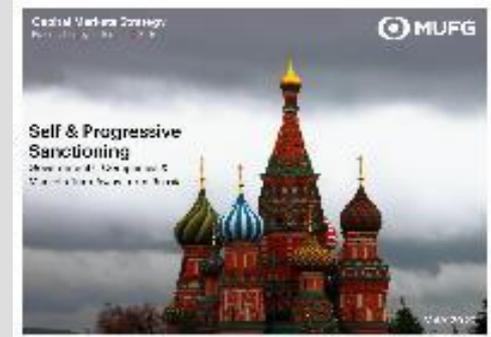
MUFG's Capital Markets Strategy Team



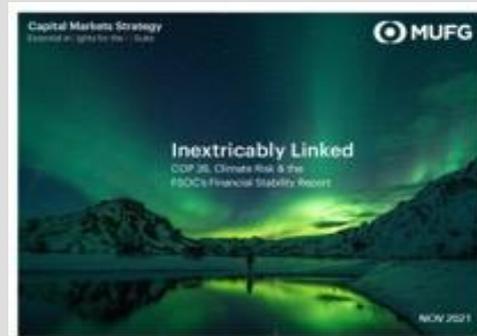
MUFG's Capital Markets Strategy Team



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MUFG's Capital Markets Strategy Team



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