



## Macroeconomic View

## Economic Growth

This is a financial promotion. Your capital is at risk, the value of investments may fall and rise and you may not get back the full amount you invested. Past performance is not indicative of future returns.

### **What are the long-term economic growth implications of the massive fiscal spending and related government deficits and debt?**

In the base case scenario, global economic growth will rise rapidly over the next two to three years, with inflation rising moderately, allowing central banks to keep monetary policy accommodative for several years. In addition, the targeted fiscal support to lower-income groups will help reduce imbalances, associated social tensions and populist forces that gained prominence in the post-GFC period of QE combined with fiscal austerity. However, there is a meaningful risk that inflation (and more importantly inflation expectations) become untethered for lengthy periods, central banks are forced to act and withdraw liquidity. This could result in a more classical boom/bust economic cycle that was typical before the great moderation of the post-GFC period, resulting not only in economic instability, but even greater social tensions and a devaluation of risk assets.

### **Unprecedented fiscal and monetary stimulus is generating a sharp recovery**

As the global economy recovers from the deepest recession and fastest recovery since World War II, a consensus is emerging that the post-pandemic economic growth over 2021 and 2022 will be much faster than in the post-GFC recovery ten years ago, even if some level of economic output is permanently lost.

To put this into perspective, the global economy is expected to expand rapidly at 5.5% in 2021 and 4.2% in 2022, according to the latest (January 2021) IMF projections as shown in Exhibit 1. This compares to a 20-year average global GDP growth of 3.3%. The 2021 forecast was revised up by 0.3% relative to the October 2020 forecast, reflecting expectations of a vaccine-powered strengthening of activity later in the year and additional fiscal support in a few large economies. Of the major economies, the US and China are projected to experience the fastest 2021 GDP growth rates of 5.1% and 8.1%, respectively. US growth in 2021 has been upgraded by 2% since the October estimates due to the increased scope for fiscal stimulus under the new Biden administration. Overall GDP output is expected to fully recover to the 2019 levels in 2021. Meanwhile, European 2021 growth has been downgraded by -1% to 4.2%, primarily due to the recent intensification of the second COVID wave. However, all these estimates have room for upward revision as more recent estimates from leading private sector economists already point to even faster growth rates.

The playbook policymakers have used over the past year draws heavily from lessons learned in the aftermath of the global financial crisis (GFC). Following the pandemic outbreak, central banks adapted—and expanded—unconventional interest-rate, asset-purchase and credit backstop programmes initiated during the GFC to aggressively limit the spill-over from lockdowns into funding and credit markets. In aggregate, this amounted to c. \$29T or c.34% of global GDP. Not to be outdone, fiscal authorities injected massive stimulus into the global economy. Global fiscal support reached nearly \$14T or 19.4% of global GDP in 2020 alone. This was comprised of \$7.8T in additional spending or forgone tax revenue and \$6T in equity injections, loans, and guarantees. Their crisis management efforts proved remarkably effective, setting the stage for a historic growth bounce in 2H20, leaving the drop in 2020 global GDP growth at -3.5%, vs

## Exhibit 1

### Global growth expected to bounce back sharply in 2021 and 2022

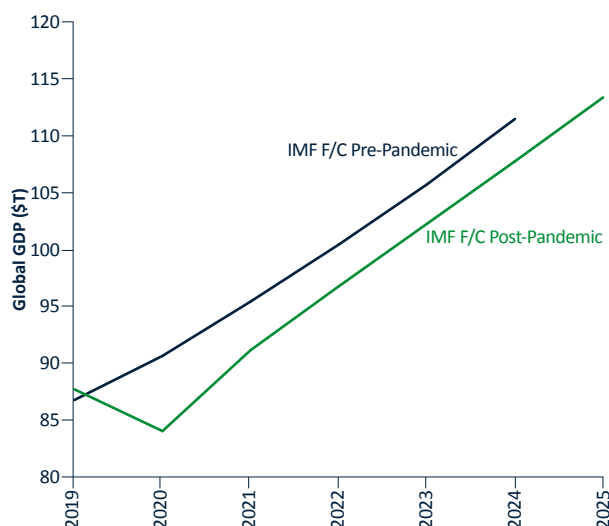
Global GDP Real Growth Forecasts (%)	2020	2021	2022	2023	2024	2025-2030	10yr CAGR
IMF Pre-Pandemic Oct.'19/Jan'20	3.3	3.4	3.6	3.6	3.6	3.6	3.6
IMF Post-Pandemic Oct.'20/Jan'21	-3.5	5.5	4.2	3.5	3.5	3.5	3.0
J.P. Morgan February 2021	-3.3	6.6	4.6				

**Note:** Pre-Pandemic forecasts reflect IMF estimates published in Oct 2019 or Jan 2020 where available. Post-Pandemic forecasts were published in Oct 2020 or Jan 2021 where available  
**Source:** IMF, J.P. Morgan

initial estimates of c. -8%. However, even after this bounce, the global economy still stands at roughly \$3.5T or c. 4% below its pre-pandemic potential growth path as it enters 2021 as shown in Exhibit 2.

## Exhibit 2

**Despite the sharp recovery in 2021 and 2022, global trend GDP remains c. \$3.5T below pre-pandemic projections**



Source: IMF

## Why such a large-scale policy response and how much more will be spent?

In short, the policy winds have shifted from the post-GFC fiscal austerity to fiscal profligacy. Much of the aggressive policy response in 2020 was executed around the world when no vaccine was in sight. In addition, the pandemic worsened populist sentiment for obvious reasons (e.g., 15% unemployment in the US), and it gave politicians across the political spectrum justification for massive direct support payments. The very slow economic recovery from the scale of policy response to the GFC suggested, looking back, that more was needed for this crisis. Also, the GFC was a debt crisis, where there was great sensitivity to worsening the debt situation on government balance sheets. The pandemic is a medical crisis. These points explain the past policy response, but not the future response, other than profligacy remains politically in vogue around the globe given the pandemic is not yet behind us.

In addition to the record stimulus injected into the global economy in 2020, even more is planned for the years ahead:

- **In the US**, the new administration is proposing c. \$1.9T of fiscal relief programmes in 2021, on top of the \$0.9T that was approved in December 2020. Furthermore,

additional fiscal spending aimed at infrastructure and investment of c. \$1.5-2.0T is being planned for the next 5 to 10 years. The Federal Reserve has modified its monetary policy to focus on “average inflation targets”, i.e. explicitly committing to keeping interest rates low, even if inflation temporarily exceeds its 2% target after a period of low inflation.

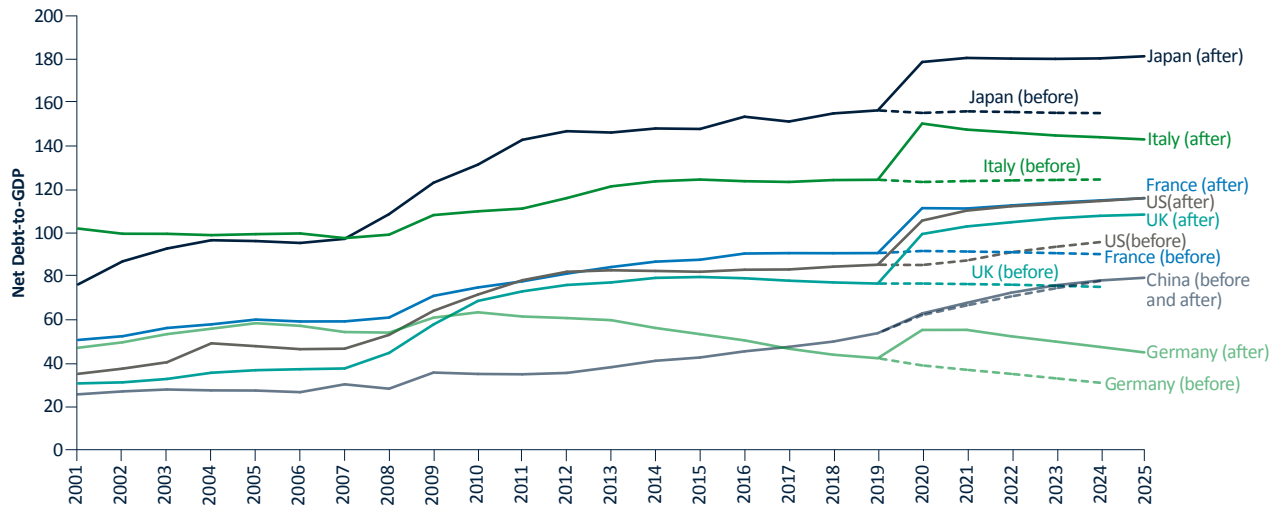
- **In the UK**, a new budget will be announced in 3rd March, but chancellor Sunak has explicitly disavowed a return to the Osborne austerity policies of the last decade. The Bank of England has cut interest rates to near zero and is openly discussing the prospect of negative interest rates, while pencilling in another £150B of asset purchases for 2021 in addition to the nearly £300B purchased in 2020.
- **In Europe**, member states have agreed an EU-wide fiscal budget of €1.7T for the next seven years, which includes a €750B recovery fund, under which Brussels will gain unprecedented powers to borrow hundreds of billions on the markets and hand it out as budgetary support to the most stricken member states. About €390bn of this sum will be distributed in the form of grants, raised via issuance of EU debt by the commission, with the remainder coming in the form of loans to facilitate the recovery in member states. Meanwhile, on the monetary side, the ECB is continuing its pandemic emergency purchase programme (PEPP) initiated in March 2020. The ECB increased the initial €750B envelope for the PEPP by €600B on 4 June 2020 and by €500B on 10 December, for a new total of €1.85T. The ECB has stated it will not terminate PEPP purchases before the end of March 2022 at the earliest.

## What is the long-term cost?

The price to pay over the next years and decades for this record fiscal expansion is now evident as an explosion of public debt leverage, to a scale not seen even during the GFC. In October 2019, before the crisis, the IMF forecast US net debt-to-GDP would rise to 94% by 2024. One year later, they expect US debt-to-GDP to rise to 113% by 2024. In other words, the medium-term outlook has seen a step-change increase in debt worth roughly 19% of one year’s economic output. The UK has seen an even larger step-change. Pre-crisis, the UK’s net debt was expected to remain stable relative to the size of the economy at roughly 75% of GDP. Post-crisis, UK net debt-to-GDP is expected to reach nearly 100% of GDP in 2021 and 107% of GDP by 2025. In contrast, the IMF’s forecasted path of government debt in China is virtually unchanged, but nevertheless projects one of the most rapid rises from 60% today to 80% in 2025. Exhibit 3 shows expected paths of debt to GDP in major economies before and after the pandemic.

### Exhibit 3

#### IMF forecasts of debt-to-GDP have increased in developed countries



Source: The IMF World Economic Outlooks - October 2019 and October 2020

### What are the implications of so much debt?

Classical economic theory suggests that heavy public sector debt impedes future economic growth as the cost of debt servicing crowds out spending and investment in the real economy. However, the advent of highly accommodative monetary policy (including both ultra-low interest rates and QE) have loosened – but not eliminated – this link. Taking the US as an example,

the debt sustainability model shown in Exhibit 4 demonstrates that with net debt to GDP rising to c. 120% over the next ten years, even the modest (sub 2%) real economic growth generated over the bulk of this period combined with interest rates being kept low leads to debt servicing costs remaining under 2% of GDP on average which is in line with historical averages. Naturally, faster economic growth would reduce this burden further.

### Exhibit 4

#### US Debt Sustainability Model

United States	2019 Actual	2020 Est.	2021 Est.	2022 Est.	2023 Est.	2024 Est.	2025 Est.	2026 Est.	2027 Est.	2028 Est.	2029 Est.	2030 Est.
Net Debt-to-GDP (end of year)	84%	104%	109%	111%	112%	113%	115%	116%	117%	118%	120%	121%
Real GDP growth	2.2%	-3.4%	5.1%	2.5%	2.3%	1.9%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%
Inflation forecasts	1.8%	1.4%	2.2%	1.8%	1.8%	1.9%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Nominal GDP growth	3.9%	-2.0%	7.3%	4.3%	4.1%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%
Weighted average interest rate on total outstanding debt	2.7%	2.4%	1.7%	1.5%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%
Debt servicing cost as percent of GDP (int rate x debt level)	2.2%	2.0%	1.8%	1.7%	1.6%	1.6%	1.5%	1.6%	1.6%	1.6%	1.6%	1.6%
IMF forecast of government primary balance, % GDP	-4.1%	-15.5%	-10.0%	-4.9%	-4.0%	-3.9%	-4.0%	-4.0%	-4.0%	-4.0%	-4.0%	-4.0%

**Notes:**

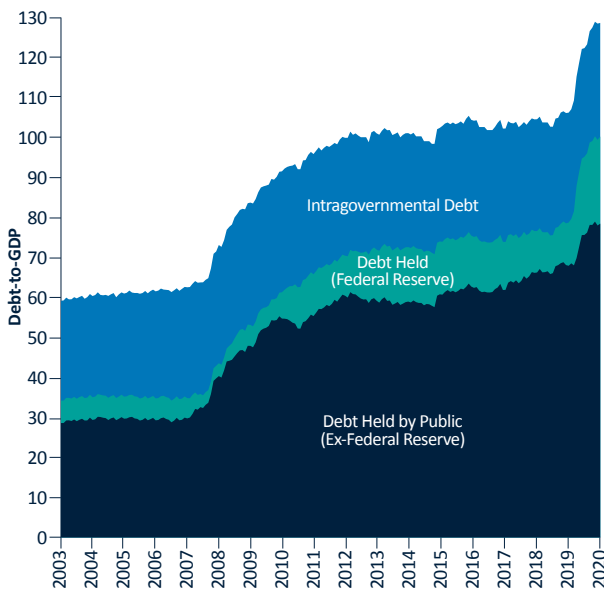
1. Forecasts from 2020-2025 are from IMF October 2020 World Economic Outlook and January 2021 Fiscal Monitor.
2. Growth, inflation and cost of debt held constant at expected trend rate after 2025.
3. Net debt is debt held by public, which excludes intragovernmental debt but includes debt held by the ECB.

Source: IMF, Partners Capital

The debt servicing cost is even less onerous when taking into account that a large and increasing proportion of this debt is held by the Federal Reserve, currently estimated at 21.5% (exhibits 5 and 7). Since any interest paid by the US Treasury to the Fed is ultimately rebated back to the Treasury at the end of the fiscal year, the effective debt servicing cost is even lower.

### Exhibit 5

**Total debt (ex-intragovernmental debt) rose to c. 20% of GDP in 2020, but more than half of this was purchased by the Fed, who will return interest payments to the Treasury.**



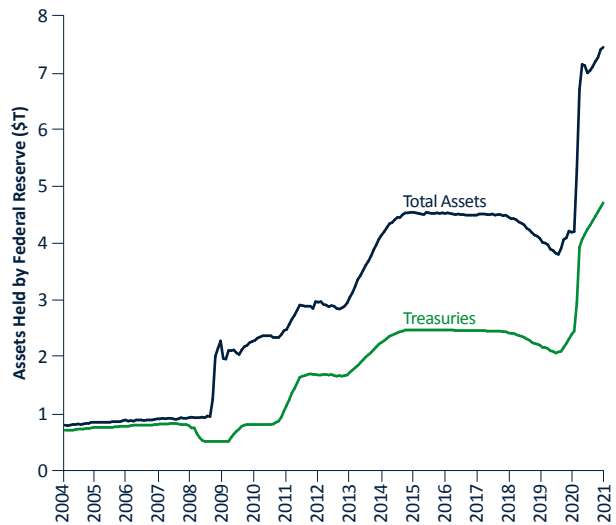
*Note: Intragovernmental debt is debt that one part of the government owes to another part. In almost all cases, it is debt held in government trust funds, such as the Social Security trust funds.*

*Source: US Federal Reserve*

Eventually this debt will be rolled off its balance sheet or sold back into the private sector when monetary policy needs to be tightened. The Fed has previously attempted to reduce the size of its balance sheet. From January 2018 to August 2019 the size of the balance sheet shrank from \$4.5T to \$3.8T as maturing securities rolled off and were not repurchased. However, in August 2019 liquidity shortages caused unusual volatility in the overnight lending markets, with the repo rate spiking to 10%. The Fed's answer to this was to once again start expanding its balance sheet to provide liquidity.

### Exhibit 6

**Even before the onset of COVID-19 the Fed had restarted asset purchases to address liquidity issues in overnight lending rates**



*Note: Total assets on Fed balance sheet \$7.3T as of 31 Dec 2020, including \$2T in Agency MBS.*

*Source: US Federal Reserve*

### Exhibit 7

**The Fed's asset purchases in the pandemic were larger than in the GFC**

	Fed holding of US Treasuries			
	Date	\$ Billions	% of total debt held by public	% of GDP
Pre-Global Financial Crisis	31/12/2007	750	14.6%	5.1%
Post-Global Financial Crisis Peak	31/10/2014	2,445	19.0%	13.8%
Low after attempt at tapering	30/08/2019	2,057	12.4%	9.6%
Latest	31/12/2020	4,628	21.6%	21.5%

*Source: US Federal Reserve*

Since the GFC, asset purchases as a policy tool have also been increasingly used in other major economies. Exhibit 8 shows the portion of debt held by their respective central banks.

## Exhibit 8

**The central banks of US, Europe, UK and Japan added c. \$8.3T to their balance sheets in the 13 months to Jan 2021, or c. 19% of their collective 2019 GDP**

	Metric	US Fed	ECB	BoE	BoJ	Total
Size of balance sheet as of Jan 2021	USD	\$7.4t	\$8.5t	\$1.1t	\$6.7t	<b>\$23.7t</b>
	% of 2019 GDP	34.5%	58.1%	35.0%	128.3%	53.3%
Size of balance sheet as Dec 2019	USD	\$4.2t	\$5.3t	\$0.6t	\$5.3t	<b>\$15.3t</b>
	% of 2019 GDP	19.4%	35.9%	20.7%	101.1%	34.5%
Increase in last 13 -months to Jan 2021	USD	\$3.2t	\$3.3t	\$0.4t	\$1.4t	<b>\$8.3t</b>
	% of 2019 GDP	15.1%	22.2%	14.3%	27.2%	18.8%

Source: Bloomberg

As it stands, QE is seen as a temporary asset swap -- debt for money. If the debt is cancelled, QE results in a permanent expansion of the money supply, which would then potentially be highly inflationary. It is for this reason that senior policy makers dismiss the idea of debt cancellation. Not surprisingly, the ECB has already faced calls for debt forgiveness on its holdings of government bonds, most vocally from Italy. In November, David Sassoli, the Italian president of the European Parliament, said that debt forgiveness was “an interesting working hypothesis, to be reconciled with the cardinal principle of debt sustainability”. When ECB president Lagarde was asked about this possibility in December, her answer was an unequivocal “Non”: “I don’t even ask myself the question. It is as simple as that, because anything along those lines would simply be a violation of the treaty.”

## How can the debt load be worked down over the longer-term?

The most likely path from here is that central banks will continue to insist that debt cancellation or restructuring is out of the question. That leaves four other policy levers for reducing the debt burden over time. These include: a) raising tax revenue, b) cutting fiscal spending, c) generating faster GDP growth through productivity gains, and d) devaluing the debt by boosting inflation. In practice, the solution will

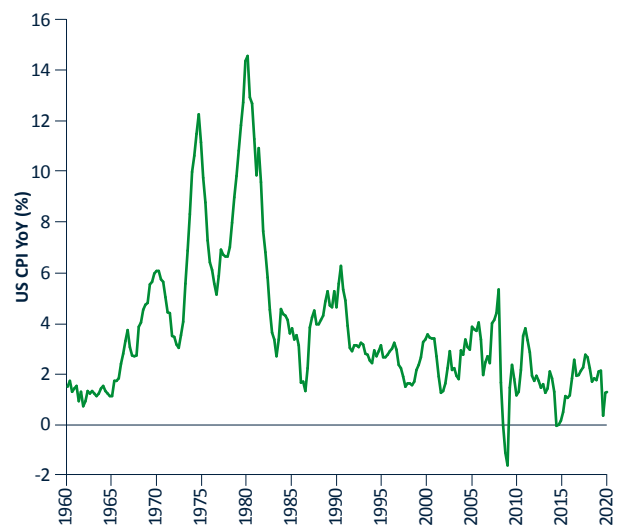
be a mix of the above. To quantify the scale of what may be needed if each of the above tools were used in isolation, a recent study in the US by the Office for Management of the Budget (OMB) and the Committee for a Responsible Federal Budget (CRFB) produced the following results, with the dotted lines being the needed “plug” for each of the above policy tools to reduce US Federal debt back down to pre-virus levels of 80% of GDP by 2030 (Exhibit 10).

Note that none of these four measures in isolation are likely to be palatable. However, recent policy statements by the new US administration suggest that the emphasis will mainly be on a mix which emphasises at least two of the above, namely moderately boosting both inflation and tax revenues. Fiscal spending is not likely to be reduced anytime soon (quite the opposite), but if some of the fiscal spending flows into infrastructure investment, green energy and other key sectors, it may result also in higher productivity growth.

The above recovery scenario using a mix of the above tools is entirely feasible in a world of low to moderate inflation and interest rates. Some market commentators point to how such policies led to high inflation in the period 1973 to 1982. Heavy fiscal spending combined with easy monetary policy was only facilitated once the US permanently broke currency ties to gold when the Bretton Woods system broke down in 1971. For a decade this was highly inflationary and disruptive economically. A miracle then occurred from the early 1980s with a secular four-decade long structural shift to lower inflation (Exhibit 9).

## Exhibit 9

**US inflation rates collapsed in the decades following the 1980’s**

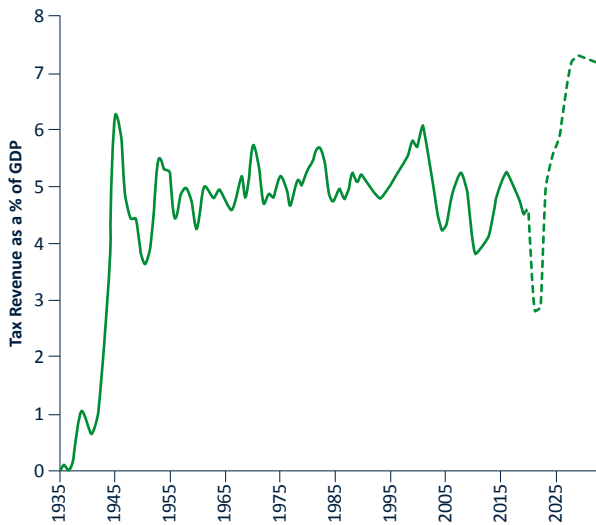


Source: Bloomberg

## Exhibit 10

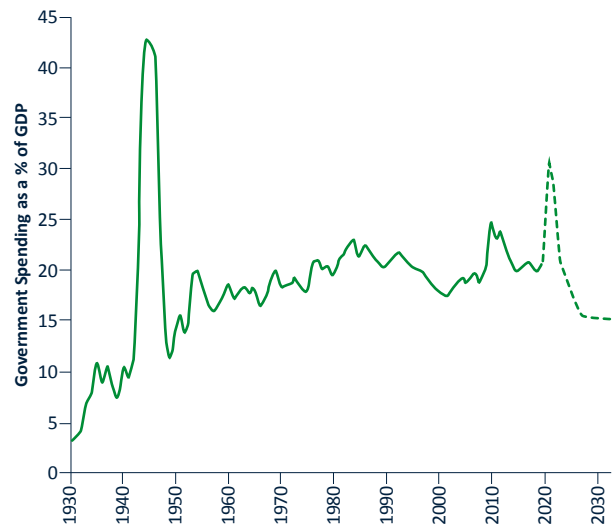
### What would be needed to bring US Federal Debt back down to pre-virus levels?

#### Raise tax revenues to their highest levels on record



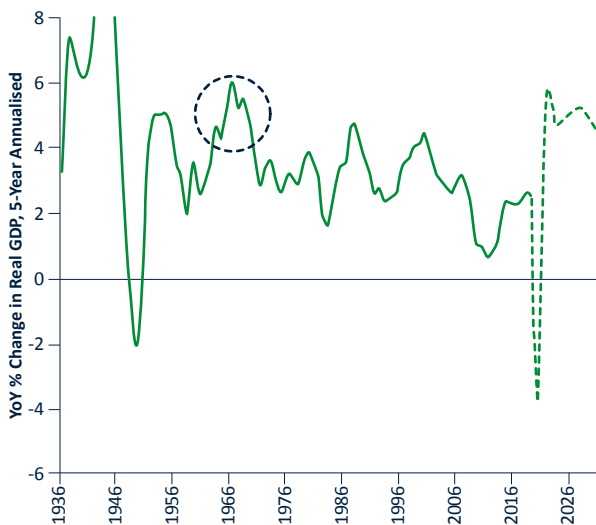
Source: OMB (history), CRFB (projections). 2020.

#### Cut spending to pre-WWII levels



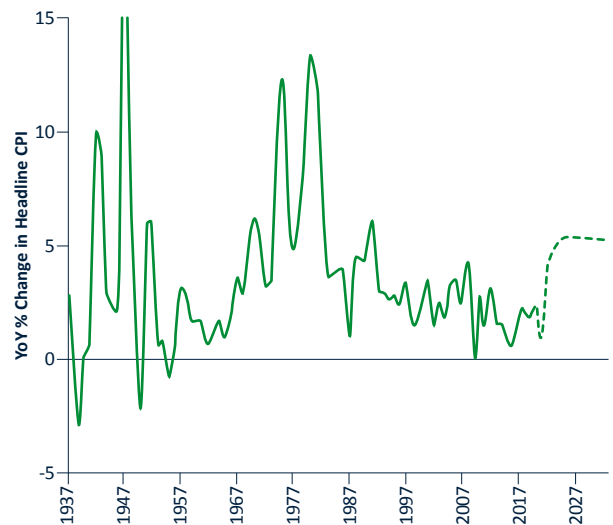
Source: OMB (history), CRFB (projections). 2020.

#### Reproduce 1960's growth boom



Source: BEA (history), CRFB (projections). JPMAM. 2020.

#### Generate higher inflation... but not too high



Source: OMB (history), CRFB (projections). 2020.

China's re-entry into the global economic system in the late 1970s and favourable demographics ensured that the supply of global labour (much of it very cheap) surged from this point. This helped ensure that the usual pressures on wages and prices as activity rose through the subsequent cycles was more subdued than normal and

fiscal and monetary policy could be kept looser to ward off economic headwinds. Hence, a key risk to the above scenario of maintaining fiscal and monetary stimulus would be if inflation expectations rose sharply, precipitating a sharp rise in interest rates which in turn would impact debt servicing costs and increase risk premia on financial assets.

## How much of a good thing is too much?

The scale of global economic stimulus likely to be unleashed in 2021 is extraordinary. Taking a closer look at potential spending outcomes in the US, if the full Biden plan would be enacted, in addition to the \$2T of supplemental spending in 2020, it could potentially add up to another \$4.7T of spending beginning in 2021 and going out for the next 5 to 10 years. Part of the long-term spending could be funded from higher tax revenues, although these are not likely to take effect immediately. Tax proposals under consideration are shown in Exhibit 11.

However, Treasury Secretary Yellen has suggested many of the added tax increases may be delayed at least until 2022 given the still-fragile nature of the economic recovery. Even after 2022, taxes will only be ramped up gradually. This suggests there will be very little drag on stimulus in the early years as shown in Exhibit 12.

### Exhibit 11 Key elements of the Biden tax plan

Key Tax Items	Current Rate	Biden Proposal	Experts View
Top Individual Tax Rate	37%	39.6%	39.6%
Capital Gains/Dividends Tax Rate	22%/25%	40%	25-28%
Corporate Tax Rate	21%	28%	25%

Source: BCA, Cornerstone

<sup>1</sup>Partners Capital are not a tax advisor. Tax treatment will depend on the individual circumstances of each client and is subject to change. Clients should consult their own tax advisors to understand the tax treatment of a product or investment.

### Exhibit 12

#### Tax increases will not offset incremental spending until 2026 at the earliest

Incremental Taxes (\$B)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
High Earner Tax Rises	0	24	27	28	30	9	0	0	0	0	0	118
Changes to Itemisation	-15	-6	-4	-5	-5	56	54	59	63	68	73	336
Cap. Gains Increase	0	5	27	39	42	37	35	38	41	44	44	351
Phase Out 199A Bus. Deductions	0	27	24	26	39	14	0	0	0	0	0	150
Estate Tax	0	4	14	18	25	31	30	32	32	33	33	252
Child Tax Credit	-33	-121	-121	-121	-88	0	0	0	0	0	0	-484
Tax Compliance	0	0	0	2	4	5	6	6	7	7	7	43
25% Corporate Rate	0	24	29	34	36	39	44	48	49	50	50	404
Intl. Min Corp. Taxes (GILTI)	0	27	38	39	41	39	37	38	40	41	41	380
Drug Advertising	0	1	1	1	2	2	2	2	2	2	2	16
Onshoring	0	-6	-6	-6	-6	-7	-7	-7	-7	-8	-8	-67
<b>Total Tax Revenue</b>	<b>-49</b>	<b>-20</b>	<b>40</b>	<b>66</b>	<b>118</b>	<b>225</b>	<b>201</b>	<b>215</b>	<b>226</b>	<b>236</b>	<b>241</b>	<b>1,498</b>

Incremental Spending (\$B)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2,032
Infrastructure	26	91	131	157	147	88	52	28	11	6	2	739
Electric Vehicles	0	13	14	14	15	15	16	17	17	18	19	158
R&D Subsidies	0	83	83	84	0	0	0	0	0	0	0	250
Procurement	0	66	67	67	0	0	0	0	0	0	0	200
ACA 2	0	30	43	69	85	81	84	88	92	95	99	766
Drug Pricing	0	0	-7	-12	-20	-27	-34	-36	-37	-36	-41	-250
<b>Total Spending</b>	<b>26</b>	<b>283</b>	<b>330</b>	<b>378</b>	<b>227</b>	<b>158</b>	<b>119</b>	<b>97</b>	<b>83</b>	<b>83</b>	<b>79</b>	<b>1,863</b>

Net Incremental Impact on the Deficit (\$B)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
	-75	-304	-290	-312	-109	67	82	118	142	153	163	-364

Notes: The above assumes a top rate of 39.6% and a bracket schedule as proposed by Biden, raise the SALT cap to \$20k for married filers permanently (which raises revenue after the 2017 tax reforms expire in 2026), raise capital gains to 28% and either repeal step up or adopt a carryover basis system, shift the estate tax parameters back to 2009 levels, expand the child tax credit for four years to \$3,000 (\$3,600 for young kids), increase tax compliance from wealthy filers, raise the corporate rate to 25%, extract \$380 billion in revenue from multinationals predominantly through changes to GILTI but potentially from a book income minimum tax or reinstatement of the corporate minimum tax repealed in 2017. Data sourced from the Biden Campaign, CBO, AEI, TPC, CRFB, and Cornerstone Macro



In addition to the above fiscal spending, economic stimulus will come from multiple other sources including highly accommodative monetary policy consisting of extended periods of near-zero interest rates and asset purchases, combined with the release of pent-up consumption demand as mobility restrictions are eased given that household saving rates are double the pre-pandemic levels (15% of disposable income in the US vs pre-pandemic levels of c. 7%). Moreover, this stimulus will take place in a context of relatively unimpaired bank balance sheets as further reserves are released allowing for increased provision of credit.

Several prominent economists have now raised questions as to whether so much economic stimulus could actually be counterproductive to long-term growth. These doubts are not only coming from Republican-leaning economists such as Michael Boskin of Stanford, but also Democrat-leaning economists such as Larry Summers, who served under both Clinton and Obama. According to Summers, in 2009 the gap between actual and estimated potential output was about \$80B a month and increasing. The 2009 stimulus measures provided an incremental \$30 to \$40B a month during 2009 — an amount equal to about half the output shortfall. In contrast, recent Congressional Budget Office estimates suggest that with the already enacted \$900B package — but without any new stimulus — the gap between actual and potential output will decline from about \$50B a month at the beginning of 2021 to \$20B a month at its end. The proposed stimulus will total in the neighbourhood of \$150B a month, even before consideration of any follow-on measures. That is at least three times the size of the output gap. Another way to look at the risk of excessive spending is to look at family income losses and compare them to benefit increases and tax credits. Wage and salary incomes are now running about \$30B a month below pre-COVID-19 forecasts, and this gap will likely decline during 2021. Benefit payments and tax credits in 2021 with proposed stimulus measures would total about \$150B per month— a ratio of 5 to 1. The ratio is likely even greater for low-income individuals and families, given the targeting of stimulus measures. In normal times, a family of four with a pretax income of \$1,000 a week would take home about \$22,000 over the next six months. Under the Biden proposal, if the breadwinner were laid off, the family's income over the next six months would likely exceed \$30,000 as a result of regular unemployment insurance, the \$400-a-week special unemployment insurance benefit and tax credits.

The above imbalances create two principal risks to long-term growth. First, while there are enormous uncertainties, there is a chance that macroeconomic stimulus on a scale closer to World War II levels than normal recession levels will set off inflationary pressures of a kind we have not seen in a

generation, with consequences for the value of the dollar and financial stability. This will be manageable if monetary and fiscal policy can be rapidly adjusted to address the problem. But given the commitments the Fed has made to hold down rates, administration officials' dismissal of even the possibility of inflation, and the difficulties in mobilising congressional support for tax increases or spending cuts, there is the risk of inflation expectations rising sharply, increasing bond yields, destabilising the dollar and hitting both credit and equity markets.

The second risk relates to increasing longer-term potential growth. Long before COVID-19, the U.S. economy faced fundamental problems of income imbalances, slow growth and inadequate public investment in everything from infrastructure to preschool education to renewable energy. These are at the heart of Biden's emphasis on "building back better." If the stimulus proposal is enacted, Congress will have committed 15% of GDP with essentially no increase in public investment to address these challenges. After resolving the coronavirus crisis, it will be important to find the political and economic accommodation for the public investments that are the highest priority in the longer term.

**Conclusion:** While the fiscal discussion above necessarily focuses more on the US given that is where the greatest and most imminent fiscal expansion is proposed, these general trends are building in other major economies. On balance, it is likely that the degree of stimulus in the US will be toned down through bi-partisan negotiation, even as it may rise moderately in other economies. (By time this publication is in your hands, the results of the current \$1.9T spending proposal will be known — the best guess at present is that c. \$1.5T to \$1.7T will be approved by mid-March.)

In the base case scenario, the overall policy mix will support global economic growth rising at a rapid pace with inflation rising only very moderately (and temporarily) above the 2% average target, allowing central banks to keep monetary policy accommodative for several years. In addition, targeted support to lower-income groups will help reduce imbalances and associated social tensions that helped populist forces gain prominence in the post-GFC period of QE combined with fiscal austerity. However, there is a not insignificant tail risk scenario that inflation (and more importantly inflation expectations) become untethered for lengthy periods, and central banks are forced to act and withdraw liquidity from the system. This could result in a more classical boom/bust economic cycle that was typical before the great moderation of the post-GFC period, resulting not only in economic instability, but even greater social tensions.

## Debt by region and sector

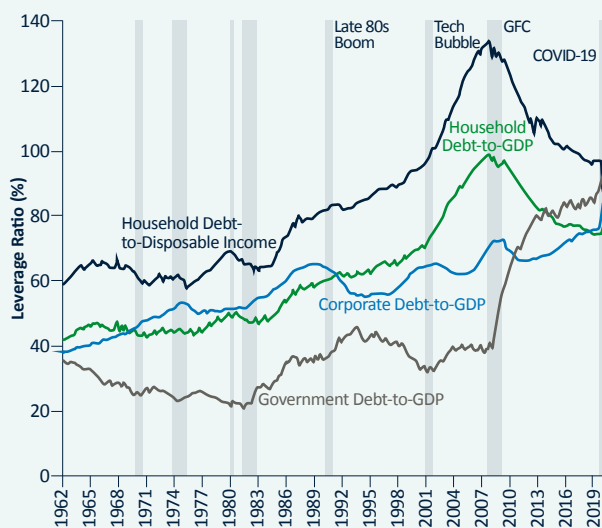
**Government debt rose substantially in 2020 as governments attempted to shield the private sector. Corporate debt increased relative to GDP, partly reflecting the drop in GDP. Household debt to disposable income improved in the US and was little changed elsewhere, while bank balance sheets continue to look robust.**

Every year since the GFC, we have reviewed financial leverage across regions and sectors. In this year's update we survey balance sheets for signs of damage from the Pandemic. We note that global total debt rose sharply in 2020. Total debt in major developed markets, including government, household, corporate and bank debt, rose sharply as a percent of aggregate GDP, from 339% at the end of 2019 to 369% as of June 2020 (GDP weighted average). Governments absorbed most of this increase, with the average government debt-to-GDP rising from 86% to 106%.

Exhibit 13 shows the debt breakdown by sector for the US, where the data is most up to date. It shows the sharp rise in government debt relative to other sectors, rising from 84% to 104% of GDP. Corporate debt ticked up from 75% to 84% of GDP. Household debt-to-GDP was little changed, but household debt as a percent of disposable income actually dropped sharply as households have used recent savings to pay down debts. Relative to incomes, household debts are now the lowest level since 1999.

### Exhibit 13

**Government debt in the US has grown sharply relatively in 2020**



Source: US Federal Reserve, Bank of International Settlements

**Government debt.** The average net debt-to-GDP ratio of major developed economy governments had been stable at close to 85% since 2014 but spiked to 106% in 2020. Many developed economies are now well beyond the 90% ratio that Harvard academics Reinhart and Rogoff proposed as a threshold beyond which debt impedes economic growth. Debts are particularly worrisome in Europe. Italian government net debt is now 150% its annual GDP. Low interest rates mean debt service costs are generally manageable, but the high existing debt burden will limit the ability of countries to respond to future crisis.

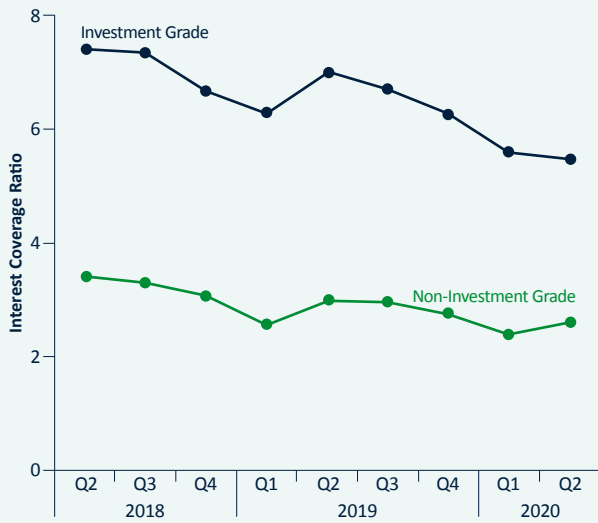
**Bank debt.** Following the GFC, bank balance sheets have been aggressively deleveraged and strengthened around the world. Banks in major developed economies further improved Tier 1 capital as a proportion of risk weighted assets, from 10.1% in 2007 to 14.3% today as a percent in 2020 – well above regulatory requirements. Certain individual banks remain vulnerable, most notably in peripheral Europe where a significant portion of bank assets are domestic sovereign bonds. This continues to link the health of these banks to the fiscal outlook of the sovereign, which could cause a negative feedback loop if peripheral European yields rise.

**Household debt.** The GDP-weighted average of developed market household debt-to-GDP increased modestly from 71% in 2019 to an estimated 74% in 2020. The current level is on a par with the household debt levels in 2003 when borrowing costs were significantly higher. Furthermore, in the US, UK and Germany, measures of debt-to-household disposable income have improved sharply as households have increased their savings rate as a result of the pandemic and used this to pay down debt. This may prove to be a temporary reprieve supported by government policy. If the unemployment rate remains high and government support to household income rolls off, household debts will likely increase again.

**Corporate debt.** Corporate balance sheets have not been as insulated from the crisis and leverage levels are a cause for concern. In the US, total non-financial corporation debt-to-GDP is now well above pre-Global Financial Crisis levels. In the Eurozone, corporate debt rose from 106% in 2019 to 114% in 2020, with the corporate sector in almost every country adding more debt. France in particular looks to be approaching extremes, rising from 150% in 2019 to 167% in 2020.

**Exhibit 14**

**Median interest coverage ratios of US companies has deteriorated over the last 3 years**



Source: S&P Global Market Intelligence

**Investment implications.** Corporate debt is the area to watch. Rising rates or a slowdown in earnings growth would expose the weak balance sheets, increasing defaults, driving credit spreads wider and driving down credit asset class valuations. This is not our base case scenario, but is a potential tail-risk to be aware of. This suggests liquid credit offers a poor risk return trade-off at present which explains our zero tactical asset allocation.

## Exhibit 15

### Regional deleveraging progress across four core borrowing groups

	% of Global GDP	Total			Government			Corporate			Banks			Household			Focus of future deleveraging
		Total Debt-to-GDP (%)			Net Gov Debt-to-GDP (%)			Non-financial Corporates' Debt-to-GDP (%)			Tier 1 Capital in Relation to Risk Weighted Assets			Household Debt-to-GDP (%)			
		2007	2019	2020	2007	2019	2020	2007	2019	2020	2007	2019	2020	2007	2019	2020	
US	24.4%	332	317	346	46	84	104	70	76	84	12.1	13.3	13.8	99	75	76	Government, Corporate
Eurozone	13.3%	334	375	386	67	88	90	93	106	114	7.5	16.1	16.3	60	58	60	Corporate
Germany	4.4%	277	228	247	53	41	54	57	59	63	8.2	16.1	16.2	61	54	56	None
France	3.1%	321	424	466	58	89	110	111	150	167	8.2	16.1	16.1	47	62	66	All except banks
Italy	2.3%	278	301	334	96	123	149	75	68	73	7.0	14.9	16.0	38	41	44	Government
Spain	1.6%	327	303	342	22	81	107	128	93	103	7.6	13.8	13.9	82	57	61	All; Govt due to budget deficit
Greece	0.2%	216	327	357	103	181	205	55	54	57	9.4	16.0	14.7	51	55	56	Government & Household
Ireland	10.4%	n/a	707	710	15	50	59	130	203	199	9.5	23.0	23.4	98	38	36	Corporate & Household
Portugal	0.3%	323	361	388	61	111	130	107	96	101	7.0	15.3	15.8	87	64	66	All except banks
China	16.3%	168	278	304	29	53	62	94	149	163	9.9	10.9	10.7	19	55	59	Corporates
Japan	5.8%	408	477	513	96	155	177	101	103	114	8.0	11.7	11.4	60	61	64	Govt due to deficit spending
UK	3.2%	430	408	441	36	75	98	82	71	78	8.2	17.9	17.9	93	84	88	Household
Canada	2.0%	246	323	359	22	26	46	83	115	126	8.5	11.3	15.3	78	101	106	Corporate & Household
Australia	1.6%	254	275	290	-7	28	39	80	73	75	10.0	12.1	12.8	110	120	121	Corporate & Household
Major developed economies (GDPWeighted)	48.4%	333	339	369	51	86	106	79	84	92	10.1	13.8	14.3	83	71	74	

Note: The colour code applied reflects a qualitative assessment of the current leverage levels relative to a country's own history. In this way it attempts to account for country specific factors such as the depth of capital markets, industry composition and debt servicing costs. Source: Bank for International Settlements, IMF, Bloomberg and Haver Analytics

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