The Global Pandemic, Policy Space and Fiscal Rules to Achieve Stronger Stabilization Policies

Michael M. Hutchison

The world economy was slowing prior to the onset of the Covid-19 pandemic. The slowdown began after a record-long period of expansion marked with record lows in unemployment and strong economic indicators along most dimensions. Even at a high point of the business cycle, however, "depression style" economic policies of very low or zero policy interest rates and large budget deficits were being followed in many countries—partly due to the lingering effects of the Great Recession and partly due the long-standing problem of "deficit bias" in fiscal policy. Fiscal responses to the Covid-19 shock in the form of wage support, business loans and other programs in 2020 were substantial and necessary but, following already large fiscal deficits and growing government debt, have aggravated the problem of long-term fiscal solvency. In some cases, concerns over record peacetime budget deficits constrained government's willingness to pursue further rounds of fiscal stimulus as the Covid-19 crisis deepened. This article argues that deficit bias constrained discretionary fiscal policy actions arises from political economy factors and demonstrates that fiscal rules are an important instrument to mitigate deficit bias and restore countries to longer-term solvency. Countries with strong fiscal rules had much better fiscal and debt positions prior to the Great Financial Crisis, allowing them in turn to pursue much more stimulative fiscal policies in response to the crisis. The same situation faced policy makers at the onset of the pandemic economic crisis-- those with strong fiscal rules were in a much better position to provide large fiscal responses to support the economy without endangering national debt solvency. Facilitating long-term fiscal solvency and allowing for larger discretionary fiscal actions in crisis situations provides a strong argument for the strengthening and enforcement of fiscal rules around the world.

Keywords: Pandemic, Fiscal rules, Stabilization Policy

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I. Introduction

This paper reviews the sharp deterioration of the world economic outlook since the onset of the COVID-19 pandemic. At the G20 Global Financial Stability Conference held in Seoul in November 2019, in the session entitled "Global Financial Environment and Challenges," the words "pandemic" or "epidemic" were not mentioned and health risks generally were not raised as even remote threats to the world economy. This paper reviews some signs of economic weakness at that time and how many economies were unprepared from a policy perspective to handle a major economic shock. In particular, despite robust economies, low unemployment rates and a record-long length of a business cycle upturn, many countries were pursuing depression-style economic policies of very low policy interest rates and highly stimulative and unsustainable fiscal policies *before* the COVID-19 shock.

A sharp economic downturn was economic associated with the COVID-19 pandemic. With little monetary stimulus available, and historic peace-time high debt levels ultimately restraining fiscal responses, policy makers were forced to walk a fine line between short-run economic stimulus and maintaining confidence that longer-term fiscal solvency was not threatened. This paper discusses some short- and long-term potential consequences of the pandemic on the world economy, compares the "COVID-19 shock" with the Global Financial Crisis (GFC), and discusses policy responses. Fiscal policy rules are discussed and how implementation of rules to achieve a target of medium-term fiscal solvency while providing policy space for large-scale short-term fiscal stimulus in the face of major economic shocks such as COVID-19 is a desirable policy strategy.

Section II discusses the global economic situation and perceived risks to continued economic expansion prior to the outbreak of the COVID-19 pandemic. Section III discusses some likely scenarios for the

global economic impact of the pandemic and a comparison with the Global Financial Crisis in 2008-09, policy responses and how, although necessary, larger deficits threaten long-term fiscal sustainability. Section IV discusses the implementation of fiscal rules as a potential medium-term strategy to restore government debt solvency dynamics. Section V concludes.

II. The Way We Were

Several key risk factors that were prominent to the world economy at the end of 2019 were identified at the time.

A. Slowing Global Economies

It was clear by mid-2019 that the world economy was slowing. Figure 1 shows that growth in the G4 and World Economy had slowed sharply in the first half of 2019, though the IMF forecasted a quick and robust return to strong world economic growth in 2020. The decline at the time was led by sharply slowing imports and modestly declining investment, shown in Figure 2. Good news was that inflation was generally moderate and stable in both advanced and emerging markets around the world. Moreover, indictors of financial stress in world markets were also very low. The St. Louis Fed Financial Stress Index, shown in Figure 3, consistently pointed to below average financial stress in 2018-19.[1]

The sharp decline in imports leading the economic slowdown was related to restrictive trade policies, led by the United States, and trade policy uncertainty. An indicator of U.S. Trade Policy Uncertainty and, separately, World Economic Policy Uncertainty, shown in Figure 4, indicate elevated levels of uncertainty over world trade developments

[1] The St. Louis Financial Stress Index measures the degree of financial stress in the markets and is constructed from 18 weekly data series: seven interest rate series, six yield spreads and five other indicators. Each of these variables captures some aspect of financial stress. Accordingly, as the level of financial stress in the economy changes, the data series are likely to move together. How to Interpret the Index: The average value of the index, which begins in late 1993, is designed to be zero. Thus, zero is viewed as representing normal financial market conditions. Values below zero suggest below-average financial market stress, while values above zero suggest above-average financial market stress.

and economic policy generally during 2019.

In addition to policy uncertainties, the length of the U.S. economic expansion at that time using the conventional NBER measure starting at the trough of the previous cycle, was 124 months. This is the longest expansion on record for the U.S., not just in the post-war period but since the 1850s when business activity started being systematically recorded in the U.S. The length of the upturn raised concerns that imbalances were accumulating in different sectors of the U.S. economy and would eventually be corrected by a slowing economy, perhaps even an economic downturn. Some imbalances identified in the U.S. associated with slower economic activity were historically high levels of consumer credit, a sharp rise of risky leveraged loans (Collateralized Loan Obligations or CLOs), and struggling initial public offerings (IPOs), either cancelled, delayed or disappointing market receptions that in turn threatened an increasingly common financing model.

B. Depression Economics in Good Times…and Bad

Major additional risks in late 2019 were the limited policy options to ward off recessionary shocks. Monetary policy by historical context was very stimulative in most countries in mid-2019, often at or below the zero lower interest rate boundary (ZLB), despite more than a decade of strong economic growth. In many cases this provided little room for future monetary expansion if the need arose. The Federal Reserve started dropping its policy rate from mid-2019, with a 25 basis point drop in late July, another 25 basis point drop in mid-September, and another 25bp cut in late October to reach the 1.5-1.75% range. Policy interest rates were negative in both Japan, shown in Figure 5, and the Euro Area at the time. On 12 September, the ECB cut the deposit rate by 10 basis points to –0.5%, shown in Figure 6, and restarted its asset purchase program. The Japanese policy rate was also negative at -0.1 %. Forward rates indicated that investors expected that policy rates would drop, by the end of 2020, by a further 15 basis points in Japan. Most advanced economies and many emerging markets had very little or no room for further substantial interest rate reductions to stimulate economies to respond to a significant negative economic shock.

Perhaps the biggest concern about limited policy space, however, was that highly stimulative fiscal policies had led to large budget deficits and rapidly growing, and ultimately unsustainable, national debt levels

a decade prior to the COVID-19 shock. Substantial fiscal stimulus was clearly justified during the Great Recession/Global Financial Crisis. But large budget deficits continued and in some cases increased long into the recovery, including the peak of the business cycle at which point economic growth was robust and unemployment rates were exceptionally low in many countries. Large budget deficits prior to the COVID-19 shock again limited fiscal space in the sense of providing little room for substantial further sustained fiscal stimulus at the time of a major a large economic shock.

In the U.S., for example, the Federal Government in early 2020 was running a very expansionary fiscal policy despite record low unemployment rates. In particular, pro-cyclical tax reductions together with expenditure increases were leading to rapid debt accumulation. The Congressional Budget Office (CBO) projected that the Federal debt held by the public, shown in Figure 7, would likely rise to $28.5 trillion, or 92 percent of GDP, in a decade—up from 78 percent at the time of the projection (May 2019). Many European countries, Japan and elsewhere were similarly following unsustainably expansionary fiscal stances. Figure 8 shows the budget polices and debt levels for European countries. It is apparent that Europe was bifurcated, with Germany in a position for substantial fiscal stimulus but many others--including France, Italy and Spain—in much more fragile positions.

III. The COVID-19 Pandemic as an Economic Shock, Policy Responses and Fiscal Solvency

The longer-term economic consequences of COVID-19 pandemic are quite uncertain. The short-term adverse effects, however, are catastrophic.

Conservative estimates are given by the IMF. The IMF updated its World Economic Outlook projects in June 2020 taking into account the Covid impacts, shown in Table 2. From October 2019 to April 2020, the IMF lowered its annual world output growth (real GDP) projections for 2020 from 3.4% to -4.9%, a decline of -8.3 percentage points. The downward revision for 2020 was -8.0 percentage points for the advanced economies and -3.0 for emerging and developing economies. Downward revisions for the United States, Euro Area, Japan and China are, respectively, -8.0, -10.2, -5.8 and 1.0. The -4.9% world output decline for 2020 projected by the IMF (June 2020 WEO update) is

unprecendented in modern times. By contrast, a -0.1% world output decline in 2009 was associated with the Global Financial Crisis.

The official unemployment data from the U.S. Labor Department shows the national unemployment jumping to 14.7% in April 2020 from a record low 3.5% two months earlier. Such a high rate in the U.S. hasn't been seen since the Great Depression in the 1930s (peaking at that time around 25%), and far surpasses the 10.0% monthly high seen during the Great Recession (October 2009). On a brighter side, the Labor Department questionnaire in April found that 78.3% of the layoffs are viewed as "temporary" due to "shelter-in-place" policies and closing of businesses. European Union countries, while experiencing sharp falls in output and widespread closure of many sectors of the economy, generally did not experience a substantial increase in unemployment through May 2020 as firms did not shed workers due to a combination of government employment support, legal restrictions on layoffs and social norms.

The fiscal stimulus responses, shown in Figure 9, were very large in most G-20 countries, focused on outright expenditures, employment support and loan programs. The G-20 in aggregate had expended about 5% of GDP on revenue and expenditure measures and 3.5% of GDP on "below-the-line" measures such as loan and equity injections and guarantees as of mid-April 2020. European countries generally topped the stimulus list, e.g. Germany's and Italy's revenue and expenditure programs were around 30% of GDP. The United States had committed less than 5% of GDP by mid-April but further stimulus and loan programs were being proposed at that time.

IV. Fiscal Rules as a Medium-Term Policy Framework

The emergency fiscal responses introduced by many countries helped dampen the substantial recessionary impulses from the pandemic shock around the world. Even greater fiscal responses may ultimately prove necessary as countries strive to return to trend growth after a two- to three-year period. However, estimating trend growth is complicated due to likely fundamental structural changes in the economy associated with the pandemic.

The consequence of substantial fiscal stimulus in the face of the pandemic, on top of recurring large budget deficits, led to unprecedented high peace-time budget deficits in the United States

and several other countries. Rising fiscal deficits further increased the high level of national debt, and raised questions over longer-term fiscal solvency in some cases. The previous section showed that little monetary or fiscal space was available for many countries prior to the pandemic shock and even less maneuverability after the monetary and fiscal stimulus packages enacted in response to the pandemic.

Countries with greater fiscal space (lower budget deficits or surpluses and lower national debt levels) at the onset of the pandemic shock were in better positions to more aggressively pursue both stronger short- and medium-term fiscal stimulus responses. This section argues that, following emergency responses to the pandemic and subsequent recessions, serious debate should be shifted to the introduction of binding fiscal rules in countries such as the United States where they are lacking. Fiscal rules would help control the longer-term buildup of national debt and allow for more fiscal space (greater policy flexibility) to deal with future economic catastrophes or simply large downturns.

A. Deficit Bias

The recurring large budget deficits for the United States, the European Union (notably Belgium, France, Italy, Greece, Spain and Portugal), Japan and the United Kingdom are reflected by the accumulation of central (national) government debt as a percentage of GDP for the more than 30-year period 1985-2018 shown in Figure 10. More recent developments are shown for the world aggregate, advanced-country aggregate, emerging-developing aggregate, all large countries and individual G-7 countries in Table 3. The table shows gross and net general government debt (central and other governmental units) for a comprehensive list of countries from 2012-18 with IMF projections over 2019-20. Gross debt is total debt while net debt is debt held by the private sector or foreign entities, *i.e.* net debt is gross debt less debt less held by the central bank and domestic government agencies).

Figure 10 shows that a pattern of deficit bias has put national debt levels since 1985 on an unsustainable path so that through both business cycle upturns and downturns debt continues to climb. Table 3 shows that world gross debt in 2020 is likely to be close to 100% of GDP for the world aggregate, over 120% in advanced economies and over 60% for the emerging/developing group. The United States and Japan, the two largest advanced economies, are projected to have gross (net)

debt levels of 131% (107%) and 252% (169%) of GDP in 2020.

There is not a single debt to GDP ratio that is undermines market stability, and clearly this ratio varies for advanced, emerging and developing economies. However, a rapid run-up in debt or market turbulence often undermines market confidence in emerging and developing economies and has led to sudden stops in capital flows and debt crises. In advanced economies, the effects may be less dramatic than emerging/developing economies but debt crises do occur (*e.g.* Greece) and also work in advanced economies by gradually crowding out productive government expenditure with interest payments. Even with extraordinarily low interest rates around the world in recent years, government interest payments and the debt burden have increased substantially in most countries. And when interest rates return to "normal" levels, many high-debt countries would be paying unprecedented high interest costs on government debt, e.g. 100% government debt to GDP ratio at 4% interest annual implies government interest costs of 4% of GDP. If government expenditures amount to 30% of GDP, interest payments of this magnitude would take up 13% of expenditure that would crowd out health, education, infrastructure and other programs.

Clearly, a basic problem is that many advanced economies have great political difficulty overcoming a "deficit bias". A deficit bias is a condition whereby a country systematically runs a budget deficit so that averaging across upturns and downturns in the business cycle leaves a substantial budget deficit that, despite economic growth, puts the national debt on an unsustainably growth path. Some of the reasons for deficit bias are discussed below but ultimately all give political economy explanations of why there is a reluctance to raise government revenues to fund expenditures, lower expenditures to a politically acceptable level, or a combination of both.

The main causes of deficit bias cited in the literature are governments' "short-sightedness" and the "common pool" problem, although "time inconsistency" problem and many other political and economic factors have been suggested. Short-sightedness may be attributable to several reasons, including governments running excessive deficits in anticipation of being replaced by another political party in future (e.g. Persson and Svensson, 1989; Alesina and Tabellini, 1990). Deficit bias may also arise because spending measures tend to be targeted at specific interest groups but financed by general taxation. This creates

the potential for free-riding problems emphasized by the common pool explanation for deficit bias (*e.g.*,Velasco 2000; Weingast *et al.* 1981). Time inconsistency may create a problem for governments to commit to fiscal disciple, leading to excessive deficits, as these commitments may not be credible in the face of the incentive to simulate short-run aggregate demand (Persson *et al.* 1987, 2006).

A myriad of solutions has been proposed in the literature to reduce deficit bias, including fiscal rules. Fiscal rules are generally legislative agreements intended to mitigate "deficit bias" and promote fiscal discipline by "tying the hands" of policy makers in order to constrain decisions about spending and revenue programs. Debrun *et al.* (2008), for example, identifies four broad categories of solutions to the deficit bias problem: (1) fiscal policy-makers may be held more accountable for their actions (*e.g.*, Corbacho and Schwartz 2007); (2) improved budgetary procedures that govern the preparation, approval and implementation of annual budget laws (*e.g.*, von Hagen and Harden 1995); (3) delegating fiscal policy or aspects of fiscal policy to institutions that are insulated from short-term political pressures (*e.g.*, Wyplosz 2005); and (4) curtailing discretion of fiscal authorities by *ex ante* fiscal rules for numerical targets or ceilings for fiscal aggregates or set benchmarks for the conduct of fiscal policy (Krogstrup and Wyplosz 2010).

B. Theory and Empirical Evidence Favoring Fiscal Rules

The theoretical basis for rules as a solution for deficit bias is not fully articulated, and should in principle be formulated in the context of the specific circumstances generating excessive deficits. From a theoretical perspective, rules constraining the choices of fiscal policymakers may be a second best solution to the deficit bias problem. However, in the absence of a more fundamental solution, fiscal rules may be useful. Von Hagen and Harden (1995) and Hallerberg and von Hagen (1999) use political economy models of the deficit bias to show that fiscal restraints can be desirable and that delegation of the budget decision reduces the bias. Primo (2006) uses a distributive politics model to establish that budget ceilings reduce deficits. Beetsma and Uhlig (1999) show that fiscal rules may be welfare improving in the presence of a deficit bias, but also that some rules (such as those implied by the Stability and Growth Pact) may have the undesirable side effect of

reducing productive as well as unproductive public spending (Beetsma and Debrun 2004 and 2005).

A number of countries have adopted fiscal rules against deficit bias, with well-specified national fiscal rules (as opposed to having substantial success. In a recent study, Bergman and Hutchison (2020) consider a sample of 101 countries, based on data from the IMF Fiscal Affairs Department database, of which 53 had fiscal rules in 2013. The frequency of adoption of fiscal rules, shown in Figure 11, ranged from 62% in advanced economies (basically flat in number since 2000), 46% in emerging economies (declining since 2005), and 45% in developing economies (growing since 1995).

Many countries have found national fiscal rules to be helpful in achieving greater budgetary discipline, with strong examples including Chile (Frankel 2011) and Sweden and other Nordics (Bergman, Hutchison and Jensen 2015, 2016a). Cross-country empirical evidence of this link is found in Bergman and Hutchison (2015, 2020), Bergman, Hutchison and Jensen (2013, 2016b, and 2019), Debrun *et al.* 2008; Wierts, 2008; Afonso and Hauptmeier, 2009; Dahan and Strawczynski, 2010; Holm-Hadulla *et al.*, 2012; Nerlich and Reuter, 2013; Foremny, 2014; Afonso and Guimarães, 2014, amongst others. Moreover, strong fiscal rules are associated with lower risk premia on national debt (Iara and Wolff 2014) and output stabilization of discretionary fiscal policy (Sacchi and Salotti 2015).[2]

C. Countries with Fiscal Rules and Strong Fiscal Positions Did Better in the GFC

Responses to the Great Financial Crisis demonstrate that countries with strong fiscal rules led to strong prior-fiscal positions and allowed them to respond much more aggressively to the negative demand shock of the GFC. Denmark and Sweden are illustrative of this point, discussed in Bergman *et al.* (2015). In particular, Sweden and Denmark both had strong fiscal rules that helped them achieve substantial

[2] "Strong" fiscal rules imbed a number of characteristics, including clearly defined and measureable quantifiable objectives, feedback from fiscal performance to a governmental agency monitoring adherence to fiscal rule objectives, the introduction of an independent national fiscal council, and so on. See Bergman *et al.* (2016) for a detailed discussion of how they construct a fiscal rule index ranging from weak to strong.

primary and general government surpluses, and low debt levels, prior to the GFC (through 2008). Sweden had the strongest fiscal rules in Europe at that time, shown in Figure 12, and Denmark was not far behind. These rules were much higher than the EU average, and even a sharper contrast with Greece and Portugal (worst hit by the GFC in Europe).

While the Euro Area had average government debt levels of 70% of GDP at the start of the GFC, Denmark and Sweden debt levels ranging from 33 to 39% of GDP. These strong positions allowed them to respond aggressively to the GFC without running up debt to excessive levels. Active fiscal stimulus measures against the GFC, together with the automatic stabilizers due to the economic downturn, swung the general government surplus from surplus to deficit, recording reversals of 6.1 and 3.2% of GDP in Denmark and Sweden, respectively.

Nonetheless, because of strong initial positions, debt levels remained moderate and the size of budget deficits were not large by international standards even after the financial crisis. Several years after the crisis, Denmark was still pursuing quite expansionary fiscal policy, with the resultant general government budget deficit at -4.4% in 2012. In Sweden, by contrast, rough balance in the general government budget was restored by 2010 and maintained until the pandemic response. It is noteworthy that Denmark had larger budget surpluses than Sweden before the financial crisis, and larger deficits than Sweden after the crisis.

Both these Nordic countries and others with strong fiscal positions at the beginning of 2020, often supported and framed by strong fiscal rules, are in very good positions to weather the current pandemic economic crisis better than most other countries, similar to how they responded to the GFC. This is again a case where a strong medium-term fiscal framework, led by fiscal rules and other institutional reforms, facilitate stronger fiscal responses at times of economic crisis.

V. Conclusion

This article documents that the world economy was already slowing prior to the onset of the Covid-19 pandemic, led by world trade tensions and policy uncertainty. Moreover, the U.S. economic expansion at that point was the longest in duration since NBER records were maintained. Against record low unemployment and still very strong economies at

the start of 2020, however, many countries were following "depression style" policies of very low or zero policy interest rates and large budget deficits leading to a sharp run-up in public debt.

With the substantial closing of world economies to stem Covid-19 transmission, world output and trade collapsed and unemployment jumped to levels not seen since the Great Depression, and far exceeding the Great Recession. Relatively modest monetary support has been forthcoming in many countries due to limited monetary space. Perhaps most important, limited fiscal space in several countries has constrained fiscal stimulus packages. Appropriate fiscal responses in the form of wage support, business loans and other programs have been substantial. But even larger fiscal measures are appropriate in an economic crisis of this magnitude. Quite simply, if countries had been in better fiscal positions prior to pandemic shock, much larger stimulus programs could have been followed without undue concerns about "affordability" or longer-term consequences for government debt buildup.

With many countries already facing national debt levels not seen since the end of World War 2, and projected to climb much higher, longer term fiscal solvency is an issue and constrains even the magnitude of short-term emergency fiscal stimulus associated with the Covid-19 crisis. Trend debt growth resulted from widespread deficit bias, arising from political economy factors. We present theoretical and empirical evidence that strong medium-term fiscal rules are an important instrument to mitigate deficit bias and restore countries to longer-term solvency. We present evidence that countries with strong fiscal rules had much better fiscal and debt positions prior to the Great Financial Crisis, allowing them in turn to pursue stabilization policies much more aggressive than most others around the world. The same situation faces policy makers at the onset of the pandemic economic crisis-- those with strong fiscal rules are in a much better position to provide very large fiscal actions to support the economy without endangering national debt solvency. This provides a strong argument for the strengthening and enforcement of fiscal rules around the world after the COVID-19 pandemic economic crisis has passed and national and world economies are on a more stable footing.

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Tables and Figures

Table 1
NBER-Dated Business Cycles in the U.S.

Peak month	*Trough month*	*Duration, peak to trough*	*Duration, trough to peak*
February 1945	October 1945	8	80
November 1948	October 1949	11	37
July 1953	May 1954	10	45
August 1957	April 1958	8	39
April 1960	February 1961	10	24
December 1969	November 1970	11	106
November 1973	March 1975	16	36
January 1980	July 1980	6	58
July 1981	November 1982	16	12
July 1990	March 1991	8	92
March 2001	November 2001	8	120
December 2007	June 2009	18	73
1945-2009 (11 cycles)		11.1	58.4
Present Cycle: June 2009-October 2019			124.0

Source: National Bureau of Economic Research

TABLE 2
FORECASTS AND REVISIONS SINCE COVID-19 PANDEMIC ON WORLD ECONOMY
(PERCENT CHANGES)

		Projections		Difference from April 2020 WEO Projections	
	2019	2020	2021	2020	2021
World Output	**2.9**	**–4.9**	**5.4**	**–1.9**	**–0.4**
Advanced Economies	**1.7**	**–8.0**	**4.8**	**–1.9**	**0.3**
United States	2.3	–8.0	4.5	–2.1	–0.2
Euro Area	1.3	–10.2	6.0	–2.7	1.3
Germany	0.6	–7.8	5.4	–0.8	0.2
France	1.5	–12.5	7.3	–5.3	2.8
Italy	0.3	–12.8	6.3	–3.7	1.5
Spain	2.0	–12.8	6.3	–4.8	2.0
Japan	0.7	–5.8	2.4	–0.6	–0.6
United Kingdom	1.4	–10.2	6.3	–3.7	2.3
Canada	1.7	–8.4	4.9	–2.2	0.7
Other Advanced Economies 3/	1.7	–4.8	4.2	–0.2	–0.3
Emerging Market and Developing Economies	**3.7**	**–3.0**	**5.9**	**–2.0**	**–0.7**
Emerging and Developing Asia	5.5	–0.8	7.4	–1.8	–1.1
China	6.1	1.0	8.2	–0.2	–1.0
India 4/	4.2	–4.5	6.0	–6.4	–1.4
ASEAN-5 5/	4.9	–2.0	6.2	–1.4	–1.6
Emerging and Developing Europe	2.1	–5.8	4.3	–0.6	0.1
Russia	1.3	–6.6	4.1	–1.1	0.6
Latin America and the Caribbean	0.1	–9.4	3.7	–4.2	0.3
Brazil	1.1	–9.1	3.6	–3.8	0.7
Mexico	–0.3	–10.5	3.3	–3.9	0.3
Middle East and Central Asia	1.0	–4.7	3.3	–1.9	–0.7
Saudi Arabia	0.3	–6.8	3.1	–4.5	0.2
Sub-Saharan Africa	3.1	–3.2	3.4	–1.6	–0.7
Nigeria	2.2	–5.4	2.6	–2.0	0.2
South Africa	0.2	–8.0	3.5	–2.2	–0.5

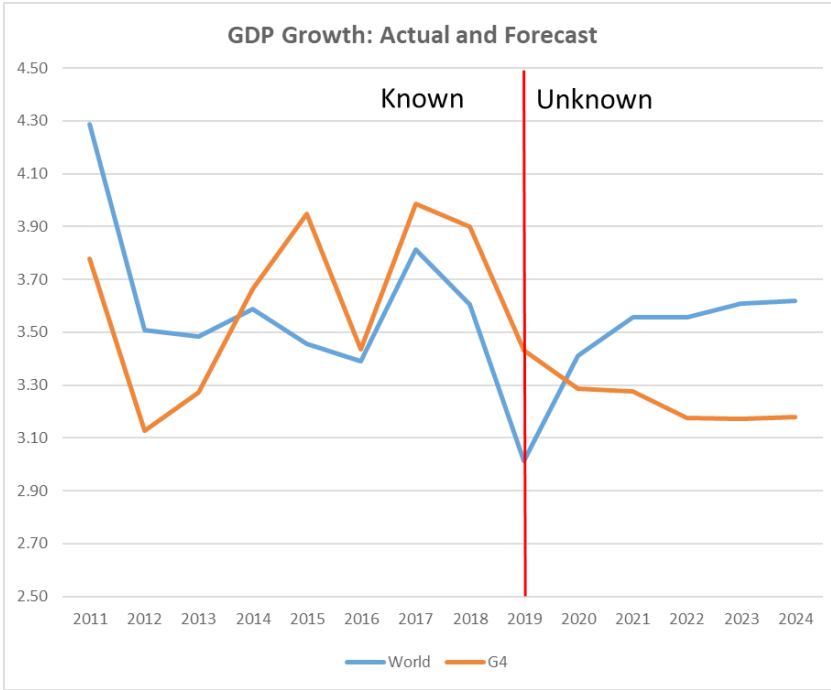
Source: Data and projections from June 2020 IMF WEO Update.

TABLE 3

GENERAL GOVERNMENT GROSS AND NET DEBT, 2011-20 (% GDP)

								Projections	
	2012	2013	2014	2015	2016	2017	2018	2019	2020
Gross Debt									
World	**79.6**	**78.3**	**78.6**	**79.7**	**82.7**	**81.3**	**81.5**	**83.3**	**96.4**
Advanced Economies	**106.7**	**105.2**	**104.6**	**104.2**	**106.7**	**104.5**	**103.9**	**105.2**	**122.4**
United States	103.3	104.9	104.6	104.8	106.8	105.9	106.9	109.0	131.1
Euro Area	90.7	92.6	92.8	90.8	90.0	87.8	85.9	84.1	97.4
France	90.6	93.4	94.9	95.6	98.0	98.4	98.4	98.5	115.4
Germany	81.1	78.7	75.7	72.1	69.2	65.3	61.9	59.8	68.7
Italy	126.5	132.4	135.3	135.3	134.8	134.1	134.8	134.8	155.5
Spain	86.3	95.8	100.7	99.3	99.2	98.6	97.6	95.5	113.4
Japan	228.7	232.2	235.8	231.3	236.4	234.5	236.5	237.4	251.9
United Kingdom	83.2	84.2	86.2	86.9	86.8	86.2	85.7	85.4	95.7
Canada	85.4	86.1	85.6	91.2	91.7	90.5	89.7	88.6	109.5
	...	...	...	...	...	...	...	...	...
Emerging Market and Middle-Income Economies	**37.0**	**38.2**	**40.3**	**43.7**	**46.5**	**48.0**	**49.7**	**53.2**	**62.0**
China	34.4	37.0	40.0	41.4	44.2	46.1	49.1	54.4	64.9
Russia	11.2	12.3	15.1	15.3	14.8	14.3	13.6	14.0	17.9
Brazil	62.2	60.2	62.3	72.6	78.3	83.7	87.1	89.5	98.2
Mexico	42.7	45.9	48.9	52.8	56.8	54.0	53.7	53.4	61.4
Net Debt									
Advanced Economies	**76.7**	**75.9**	**75.7**	**75.8**	**77.5**	**75.9**	**76.0**	**76.6**	**94.2**
United States	80.8	81.6	81.4	81.1	82.1	82.1	83.2	84.1	107.0
Euro Area	73.2	75.7	75.9	74.7	74.3	72.2	70.5	69.1	81.3
France	80.0	83.0	85.5	86.3	89.2	89.5	89.6	89.8	106.7
Germany	59.6	58.6	55.0	52.1	49.3	45.7	42.9	41.3	49.2
Italy	114.6	120.0	122.3	123.2	122.4	122.1	122.9	123.1	142.7
Spain	71.8	80.9	85.2	85.0	86.1	84.5	82.7	81.1	97.7
Japan	145.3	144.7	146.6	146.4	152.0	149.8	153.4	154.3	168.9
United Kingdom	74.8	75.9	78.0	78.4	77.8	76.7	75.9	75.5	85.9
Canada	28.9	29.7	28.5	28.4	28.7	27.9	26.5	25.9	40.7

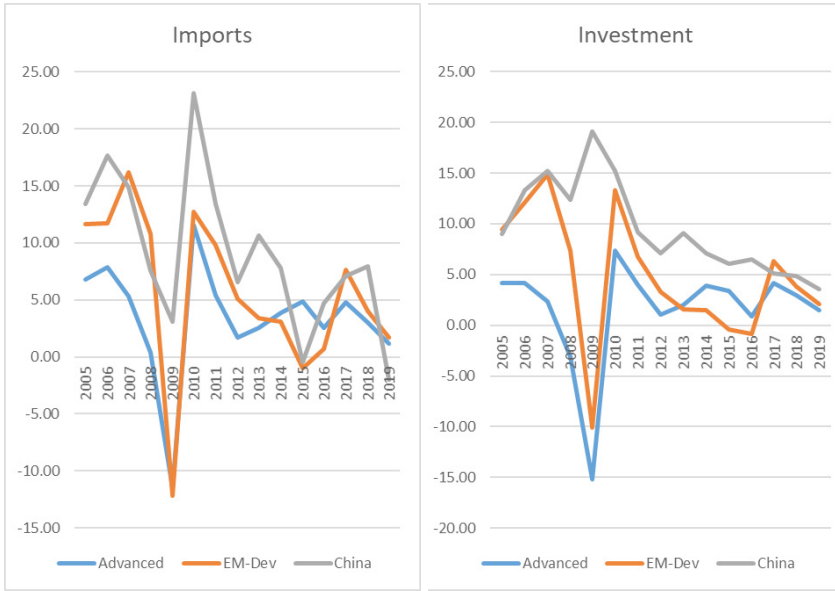
Source: April 2020 IMF Fiscal Monitor (IMF projections for 2019-20)



Source: IMF October 2019 WEO Last half of 2019 is estimated and forecasted

Figure 1

GDP Growth: Actual and Forecast



Source: October 2010 IMF WEO

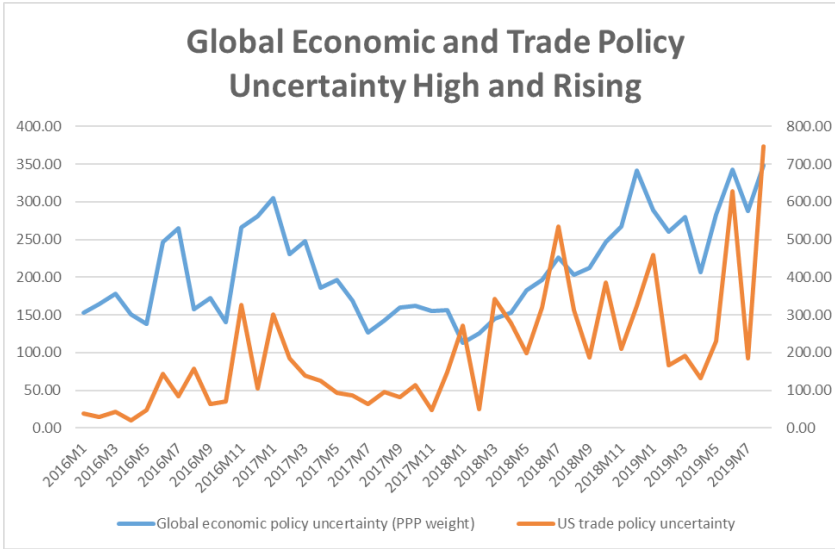
FIGURE 2

IMPORTS AND INVESTMENT

Source: St. Louis Federal Reserve "Fred" Data Base

FIGURE 3

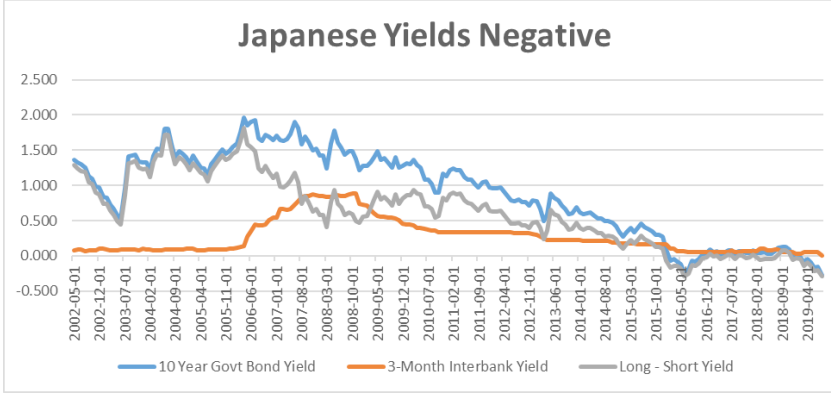
ST. LOUIS FED FINANCIAL STRESS INDEX



Source: October 2019 IMF WEO

FIGURE 4

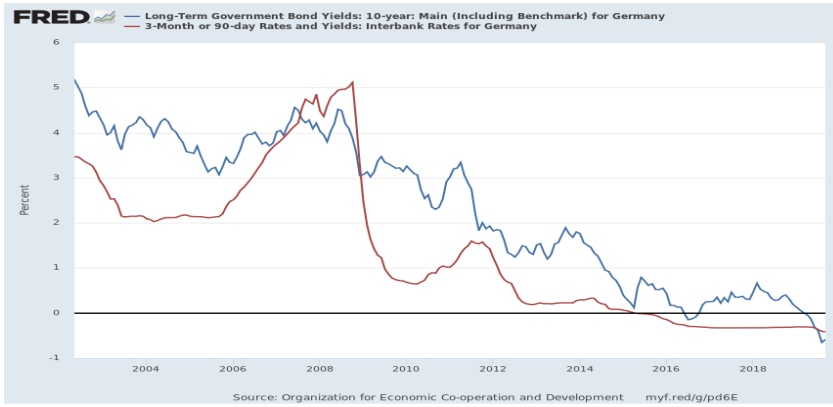
GLOBAL ECONOMIC AND TRADE POLICY UNCERTAINTY HIGH AND RISING



Source: St. Louis Federal Reserve "Fred" Data Base

FIGURE 5

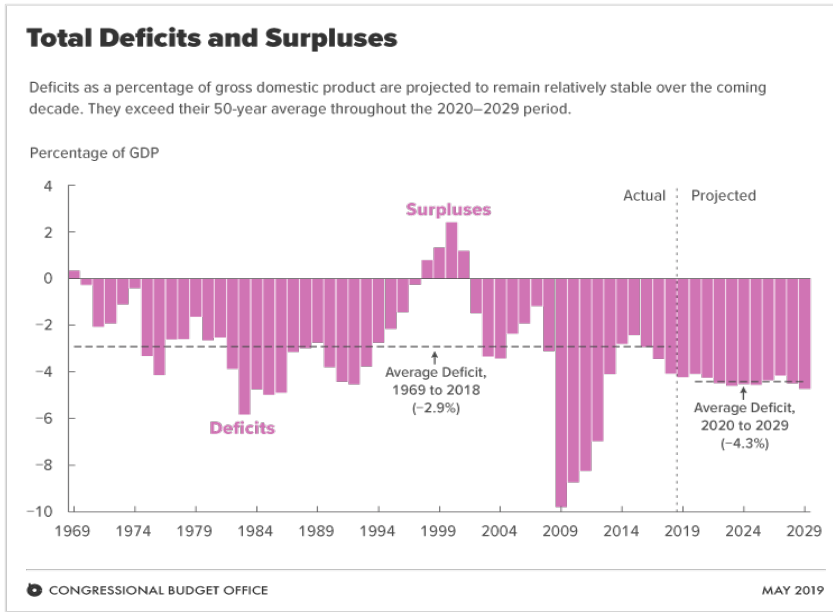
JAPANESE YIELDS NEGATIVE



Source: St. Louis Federal Reserve "Fred" Data Base

FIGURE 6

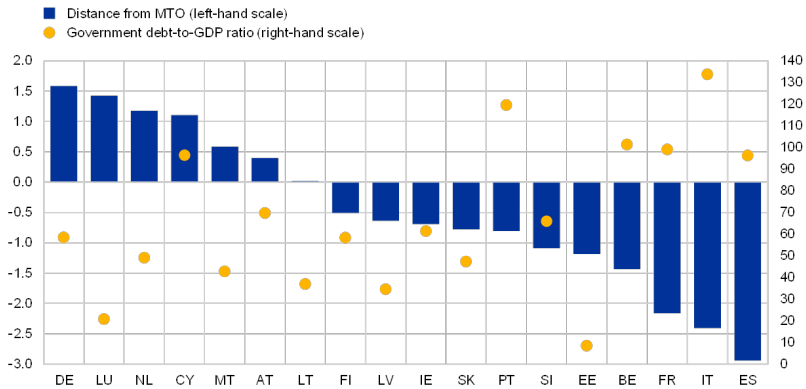
LONG-TERM GOVERNMENT BOND YIELDS AND INTERBANK RATES FOR GERMANY



Source: Congressional Budget Office

FIGURE 7

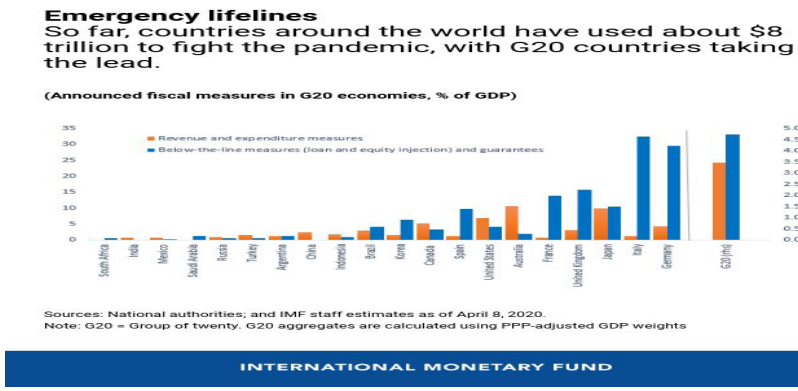
U.S. BUDGETARY POSITION AND FORECASTS FROM MID-2019



Source: European Commission

FIGURE 8

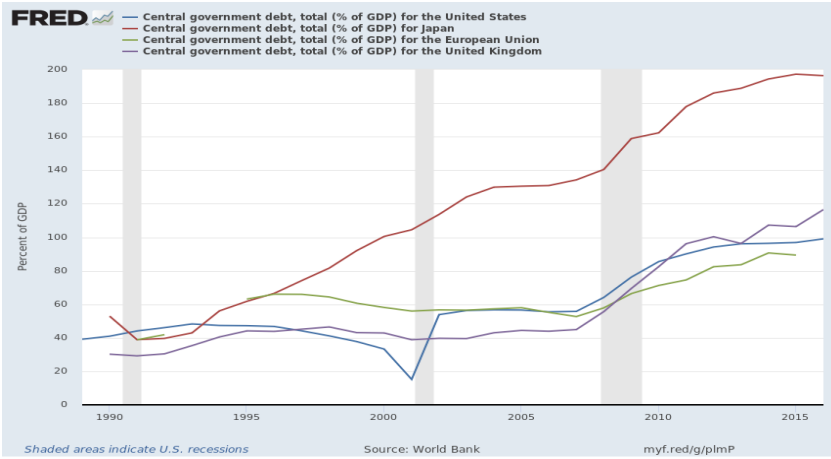
EUROPEAN FISCAL AND DEBT POSITIONS



Source: IMF Blog, "Fiscal Policies to Contain the Damage from COVID-19", April 15, 2020, from National Source

FIGURE 9

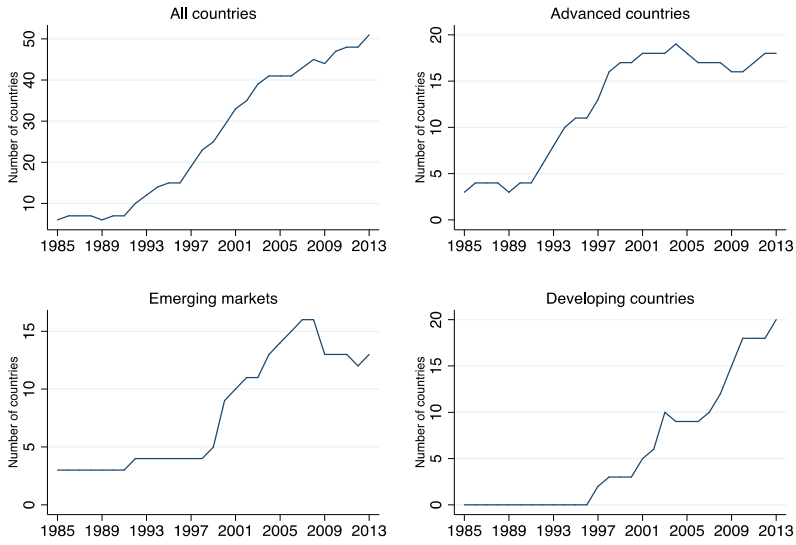
ANNOUNCED FISCAL MEASURES IN G-20 COUNTRIES, % GDP
(AS OF MID-APRIL 2020)



Source: St. Louis Federal Reserve "Fred" Data Base

FIGURE 10

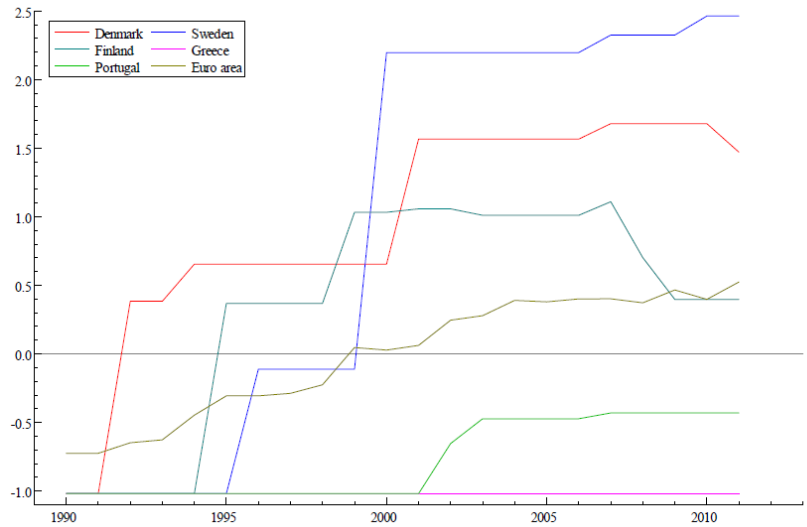
DEFICIT BIAS IN ADVANCED ECONOMIES



Source: Bergman and Hutchison (2020) Online Statistical Appendix.

FIGURE 11

COUNTRIES WITH FISCAL RULES



Source: Data Source on Rules from European Commission. Figure taken from Bergman, Hutchison and Jensen (2015).

FIGURE 12

STRONG FISCAL IN SWEDEN AND DENMARK COMPARED TO OTHER EUROPEAN COUNTRIES