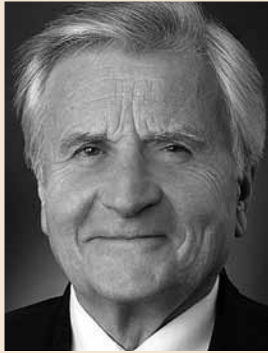
A SYMPOSIUM OF VIEWS

Has the World Been Fitted With a Debt Straightjacket?

The world's combined public and private debt is approaching 300 percent of GDP. In the United States, public debt alone under Presidents George W. Bush and Barack Obama jumped from $5.8 trillion in 2001 to $20 trillion in 2016, a 250 percent increase. According to the U.S. Congressional Budget Office, interest payments on that debt increased by almost $30 billion for just the first six months of FY 2017—a nearly 23 percent jump. As the Federal Reserve and other central banks return interest rate policy to its historic norm, will the increased spending necessary to finance today's massive debt impede economic growth? Or can the global economy handle today's debt load? Some analysts suggest that in recent decades, Japan with its massive debt theoretically couldn't achieve higher levels of economic performance precisely because higher interest rates would have risked a bank balance sheet crisis. How problematic is today's debt?

Nearly forty distinguished experts offer their wisdom.



Yes, the straightjacket is caused in large part by excessive leverage.

JEAN-CLAUDE TRICHET
European Chairman, Trilateral Commission, former President, European Central Bank, and Honorary Governor, Banque de France

Indeed we are presently fitted with a debt straightjacket!

The global financial crisis starting in 2007–2008 had many causes. But one of the most important was the excessive financial leverage characterizing particularly the advanced economies.

Due mainly to these economies, the piling up of additional global public and private debt outstanding in the years preceding the eruption of the crisis had been very impressive. According to the report "Shadow Banking and Capital Markets," published last year by the Group of Thirty, the overall global debt outstanding as a proportion of global GDP increased from 250 percent to around 275 percent, from 2000 to 2007. Adding around one-quarter of global GDP to global debt outstanding during the seven years preceding the crisis was a major mistake by the international community.

Taking into account, first, the extreme acuteness of the financial crisis, second, the fact that the international community avoided a dramatic depression only because central banks, in particular, were extraordinarily swift and bold in their decisions, and, third, the gravity of the recession accompanying the financial crisis, one would have expected some stabilization of the global debt outstanding as a proportion of global GDP. That is not the case.

Global financial leverage continued to increase at the same pace. According to the same Group of Thirty report, eight years after the start of the crisis, a new quarter of global GDP was added to global debt outstanding, pushing up the global leverage at the level of more than 300 percent in 2016 (other methodologies would suggest slightly different figures but would lead to the same conclusion as regards the continuing pace of additional leverage).

This global phenomenon is very worrying. It is obvious that the global economy is today more vulnerable, seen through this systemic financial indicator, than it was at the eve of the crisis. And the fact that the increase of leverage was more moderate after the crisis in the advanced economies which were at the epicenter of the crisis and much more dynamic in the emerging economies which, for most of them, were not directly touched by the financial crisis, is not reassuring in my eyes.

More than ever, for all decision makers—global, continental and national—systemic vigilance is of the essence. On top of sound monetary policies solidly anchoring inflation expectations and attentive monitoring of the micro and macroprudentials which are of the essence, I would stress the three following recommendations which would foster medium- and long-term growth and job creation, and contribute to reduce systemic financial vulnerability:

First, in most economies, investment should be favored instead of consumption, in order to pave the way for higher long-term potential growth. This is particularly true in advanced economies.

Second, more "expansive" fiscal policies, often suggested, should be understood as favoring medium- and long-term growth through optimization of public spending and taxation but not through augmentation of deficits in countries already in deficit. This would do nothing but add further to their vulnerability and global public finance leverage. The call for more deficits should be limited to the handful of economies that are posting surpluses, with the understanding that others are reducing their deficits… Otherwise what will we do when the economic cycle is less favorable?

Finally, in the private sector, everything should be done to boost equity instead of debt financing. Many countries and economies are still favoring debt instead of equity, in particular through taxation. This is not only an economic mistake but also a dangerous policy, which increases systemic financial risks at national and global levels.

We're fighting over short-run austerity and ignoring the fundamental long-term disease.

C. EUGENE STEUERLE
Richard B. Fisher Chair and Institute Fellow, Urban Institute

A straightjacket, yes, but debt defines its features poorly. Debt is merely one symptom of a disease that has vastly restricted the ability of developed nations to respond to new needs, emergencies, opportunities, and

voter interests. The disease: the extraordinary degree to which past policymakers have attempted to control the future—building automatic growth or growing public expectations into existing spending and tax subsidy programs while refusing to collect the corresponding revenues required to pay for them.

In my 2014 book *Dead Men Ruling,* I show how this leads to a "decline in fiscal democracy"—the sense by officials and voters alike that they have lost control over their fiscal destiny. Though the degree and nature of the problem varies by type of government and culture, research so far in the United States and Germany, two countries with greater fiscal space than most other developed countries, confirms this historic shift.

We must understand how we got here if we ever expect to get a cure, since defining the problem by the debt symptom has led mainly to periodic deficit cutting that leaves the same long-term bind, frustrating voters and officials alike while increasing the appeal of anarchists and populists.

For most of history, nations with even modest economic growth wore no long-term fiscal straightjacket. Even with the debt levels left at the end of World War II, economic growth led to rising revenues, while most spending grew only through newly legislated programs or features added to programs. Typically existing programs were expected to decline in cost, for example, as a defense need was met or construction was completed.

Until recent decades, budget offices did no long-term projection, but if they had, they would have revealed massive future surpluses over time even when a current year revealed an excessive deficit. Year-after-year profligacy was still a danger, but it wasn't built into what in the United States is referred to as "current law."

Today, rising spending expectations are built into the law through features such as retirement benefits that rise with wages, expectations that health care spending will automatically pay for new innovations, and failure to adjust for declining birth rates and the corresponding hit on spending, employment, and revenues. At the same time, officials fail to raise the revenues required to meet, much less fund, those laws or voter expectations.

A rising debt level relative to GDP is merely one symptom. Reduced ability to respond to the next recession or emergency is another, while the increasing share of government spending on consumption and interest crimps programs oriented toward work, investment, saving, human capital formation, and mobility.

Politically, the chief budget job of elected officials turns from give-aways to avoid growing surpluses to take-aways that renege on what the public believes is promised to them. Economic populists, fiscal hawks and doves alike, don't help when their fights over short-run austerity ignore the fundamental long-term disease.

The bottom line: flexibility, not merely sustainable debt, is required for any institution—business, household, or government—to thrive.

Japan's experience has been replicated on a global scale.

THOMAS MAYER

Founding Director, Flossbach von Storch Research Institute, and former Chief Economist, Deutsche Bank

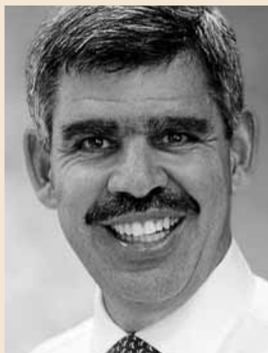
It seems that Japan's experience of the last three decades has been replicated on a global scale. During the 1980s, the Bank of Japan felt that a relatively loose monetary policy was appropriate as consumer price inflation was well-behaved. The Bank neglected the surge in asset prices until it was too late. When the asset price bubble burst, fiscal and monetary policy came to the rescue. A serious recession was averted, but at the same time structural adjustment was impeded. Thanks to low interest rates, a very high level of debt became sustainable. But the debt overhang stifled economic growth. A fragile equilibrium emerged, where low growth led to low inflation, which made the debt overhang sustainable, which in turn depressed economic growth.

With about twenty years delay, the United States and Europe have followed in Japan's footsteps, by first allowing a real estate bubble to emerge and then countering the recessionary effects from the ensuing financial crisis with low interest rates. Like in Japan, structural adjustment has been impeded and a debt overhang has become entrenched.

As long as there is no exogenous shock to inflation, the fragile equilibrium will continue. Inflation has been very low on trend in Japan since the early 1990s and it has been low in other industrial countries since the financial crisis of 2007. But the fragile equilibrium will break apart when inflation eventually rises. Then, central banks will be confronted with the choice of either raising interest rates at the risk of triggering a wave of defaults by over-indebted entities, or keeping rates low at the risk of a loss of credibility and mass flight out of paper money. Having to choose between pestilence and cholera, they

will most likely go for cholera and keep rates down. The consequence would be the long-awaited surge in inflation, which could turn into a collapse of the paper (or "fiat") money system.

At present, hardly any economist expects inflation to rise. But before 2007, hardly any economist predicted a financial crisis. It would be foolish to assume that inflation will never come back. In our world, seemingly impossible things happen more often than we think. Hence, investors would be well advised not to rely on the predictions by economists, but to take out insurance against events economists fail to anticipate. The breakdown of our fragile monetary and financial system is an event of this type. Gold, as an alternative to the official paper monies, could offer such insurance.



The global economy has the technical ability to deal with its stock of debt. It needs the political willingness.

MOHAMED A. EL-ERIAN
Chief Economic Advisor, Allianz; Chair, President Obama's Global Development Council; and author, **The Only Game in Town: Central Banks, Instability, and Avoiding the Next Collapse** *(Random House, 2016)*

The global economy can—and should—handle its debt burden in an orderly manner provided (i) it grows at a higher rate; (ii) this growth is more inclusive; and (iii) timely steps are taken to deal with the isolated pockets of overwhelming over-indebtedness. If the global economy fails to meet these three conditions, other "solutions" will be imposed on it; and they would prove painful and disruptive.

With its lackluster rebound from the global financial crisis, the global economy has been losing in the race between economic growth and debt. In addition to income expanding at too low a rate overall, thereby eroding creditworthiness, the benefits have accrued disproportionately to the better-off segments of the population.

Structural and secular forces have contributed to this disappointing outcome, but the biggest drag has come from policy shortfalls. As such, the situation can—and should—be fixed.

But if the pro-growth policy response remains partial and unbalanced, a growing number of countries would be forced into austerity to deal with growing debt burdens. Others would continue to rely on financial repression—that is, using monetary policy tools to tax savers and subsidize borrowers. And none would find it easy to do this while also reinvigorating their economies to grow at a sustainably faster rate.

As growth continues to disappoint, the inequality trifecta (of income, wealth, and opportunities) would worsen, anger politics would spread further, and governments would find it even harder to maintain second-best policies, let alone pivot to first-best ones. Default, the ultimate response to high debt burdens, would become inevitable—starting with sovereign debt in Greece, corporate liabilities in some emerging countries, and segments of U.S. student loans.

The global economy has the technical ability to deal with its stock of debt. It needs the political willingness.

This debt overhang is a severe risk for future growth and could become the breeding ground for new crises.

LUDGER SCHUKNECHT
G20 Deputy and Chief Economist, Federal Ministry of Finance, Germany

Global over-indebtedness poses risks to economic growth and stability. Hence, the current levels of private and especially public debt are, in my opinion, the biggest medium- to long-term challenge most governments face today.

The global financial crisis has left us with the highest public debt stock since World War II. General government gross debt exceeds 100 percent of GDP in many countries, including Italy, the United States, and Japan, and it exceeds the EU Maastricht threshold of 60 percent in almost all major industrialized countries, including in Germany. Moreover, population aging will further increase fiscal obligations in the future. At the same time, private sector debt has also been rising to historic highs.

The problem is no longer limited to some—seemingly—distant parts of the world. It has become a

global challenge affecting advanced, emerging, and developing economies at the same time.

This debt overhang is a severe risk for future growth and could become the breeding ground for new crises. It reduces a country's resilience and severely limits governments' fiscal policy room for maneuver in the face of adverse shocks. Moreover, too-high debt is mirrored by the risk of asset price bubbles, which could turn into a systemic risk as we have all painfully learned in the past.

However, it is not only the level of debt that worries me, but especially the current debt dynamics and the general approach many governments have taken to tackle this issue. The International Monetary Fund points out that public debt in advanced economies will not decline but (at best) stabilize at a level of over 100 percent of GDP in the medium term. Despite the current environment of healthy growth rates, closing output gaps, and low interest rates that offers unique tailwinds for debt reduction, many governments lack the willingness to implement the necessary steps to put debt on a downward path. Moreover, the economic policy debate too often neglects the debt-related medium- to long-term challenges.

What should be done? Every country needs to implement country-specific measures to tackle its debt overhang in order to increase resilience against adverse macroeconomic shocks and structural challenges. By enhancing the resilience in each country, we also foster the resilience of the global system.

Higher growth and leaner governments are the solution for high public debt. More growth via more spending may reduce debt in computer-based models, but hardly in reality where political economy and capacity constraints limit the positive growth impact of more spending. On the contrary, public expenditure ratios are already very high (up to 56 percent of GDP) so that a general reduction in government spending is necessary in many industrialized economies.

Shifting towards a growth-friendlier public spending and tax mix is equally important. In many countries, there is potential to design expenditures more efficiently and this would at the same time contribute to raising potential growth rates. Public spending has to concentrate on core services that enhance people's opportunities and ability to deal with change. Good infrastructure, security, strong public education systems, and adaptable labor market institutions all help bring people into work, provide opportunities, and make growth more inclusive.

The simple truth is that we cannot forever live beyond our means. Good times must be used to pay down debt. At some point, you have to bite the bullet. I believe this time is now.

The future prospects for Japanese banks look like hell.

MAKOTO UTSUMI

Chairman, International Advisory Board, Tokai Tokyo F.H., and former Vice Minister of Finance for International Affairs, Japan

Can Japan withstand the return to conventional monetary policy?

The Bank of Japan has been conducting an unconventional monetary policy for almost two decades, drastically strengthening this policy since Governor Kuroda took office in 2013.

As public debt accumulated to 250 percent of GDP and due to the massive holdings of Japanese Government bonds by the Japanese banking sector, some argue that Japan cannot withstand the return to conventional monetary policy.

Here are my points of view:

First, let us consider the impact of interest rates hikes on public finances. Many analysts argue that this move would be destructive to public finances due to increased interest payments. There is a point, however, almost all analysts neglect. When interest rates on the JGB rise, the rates on savings and deposits also rise. As 20 percent of the interest income is withheld at source, the incremental tax revenue would offset to a great deal the increasing cost of the debt service to be paid by the government. Although the damage caused by the shift in monetary policy on the budget balance would be limited, the fiscal situation of Japan would become increasingly serious with a sustained lack of fiscal discipline. Japanese public finances seem to be on a path to breakdown and the Bank of Japan's policy to purchase Japanese government bonds up to an amount equal to 80 percent of new issuances looks more and more like the monetization of the budget deficit.

Next, let us see the impact on the banking sector. Two decades of unconventional monetary policy have been squeezing the banks' profit margins through the extreme flattening of the yield curve. From this view point, the return to conventional monetary policy is good news for the Japanese banking sector in the long run.

On the other hand, in the short and medium terms, this would represent the harshest challenge for banks

due to massive valuation losses on their bond holdings. According to the Bank of Japan's survey, a 1 percentage point rise of interest rates on bonds would cause a loss of US$20 billion for mega-banks, US$25 billion for regional banks, and US$19 billion for credit unions.

While the U.S. Federal Reserve is firmly committed toward exit and as the European Central Bank seems to be quietly probing a future exit strategy, where is the Bank of Japan going? If it continues to maintain zero or negative interest rates, current profits of the banking sector would be further squeezed. If it starts to take steps toward conventional monetary policy, the banking sector would face serious valuation losses. Either way, the future prospects for Japanese banks look like hell.

We will probably witness a clear distinction between two groups of banks: those who manage their business based on foresight and those who don't. And we would see a deep reshuffle in the banking sector along with the exit process from the unconventional monetary policy of the Bank of Japan.

The U.S., Japan, and China can borrow for a long time without a major risk of panic, though at the cost of modestly slower growth.

ROBERT LITAN
Adjunct Senior Fellow, Council on Foreign Relations

The late Herb Stein famously remarked that if something can't go on forever, it won't. That statement implies that at some point, countries, like people, can lose the ability to roll over their debts or borrow more money, and will suffer a "lender's strike," with calamitous economic results: a financial crisis and a deep recession or depression.

But that is not the only way that rising debt relative to GDP can hurt an economy and its citizens. One of my mentors, the late Charlie Schultze, also a former CEA chair like Herb, famously analogized countries' debt problems to having termites eating away their woodwork. In this analogy, the economy doesn't suffer a sudden loss of funds, but instead mounting debt lifts interest rates, which impairs investment and thus long-term growth.

So which problem will countries whose debt-to-GDP ratios continue rising suffer—the economic equivalent of a heart attack or a chronic disease (to use other metaphors)? The answer lies principally in the currency in which its debt is denominated and from whom it is borrowing (the answers are typically, but not always, joined at the hip).

Other things being equal, it's better to borrow in your own currency, because in a worst case countries can always inflate their debt away—at the cost of higher interest rates, to be sure, but that is more like a chronic disease than the heart attack. The same outcome holds when countries are borrowing from their own citizens, who are less likely to "run," or in a worst case, can more easily be compelled not to run.

The financial crises of the late twentieth century taught the world the dangers of borrowing from other countries and in foreign currency. Foreign borrowers are not as fickle, and foreign-currency denominated debts cannot be inflated away.

Translating all these thoughts into the world today, the United States, Japan, and China can borrow for a long time without a major risk of panic, though at the cost of modestly slower growth. Countries like Italy and Greece, on the other hand, do not have that luxury.

Massive default on debt seems ultimately almost inevitable.

BERNARD CONNOLLY
CEO, Connolly Insight, LP

High levels of debt in the world are a symptom of the intertemporal disequilibrium which has dangerously, perhaps fatally, distorted the global economy since the mid-1990s. Increasing debt has been necessary to mitigate recessions and allow most of the major economies to return, for now, to full employment.

When the relevant risk-adjusted real interest rate is below what appears, heuristically, to be the rate of household time preference (demographic trends and distributional shifts notwithstanding), the expected path of consumption will be downwards relative to the expected path

of income: too much spending has been brought forward from the future by the initial, inappropriately low level of *ex ante* real interest rates.

To offset this straightforward implication of the Euler equation for consumption and prevent a recession, one exacerbated by rationally weak investment, households and firms have to spend in excess of realistically estimated future income—and continue doing so, implying a breach of the no-Ponzi-game constraint (the transversality constraint).

To induce and allow them to do that, two things need to happen. Perceptions of "wealth," and thus of future purchasing power, have been inflated by the impact of monetary policy on asset prices. And policy-induced credit bubbles have given the appearance, falsely, of relaxing the transversality constraint. The result has been a huge build-up of debt, while policymakers risibly but dangerously claim that such debt is not a problem because "net worth" has evolved favorably—thanks to the illusory "wealth" created by monetary policy.

In these circumstances, "normalization" of monetary policy (likely to be short-lived and soon followed by a resumption of the trend towards zero or negative yields) must produce an economic crash unless the baton is taken up either by budgetary "stimulus"—just another way of bringing spending forward from the future, distorting perceptions of future spending power and prospectively violating the transversality constraint—or further inflating a credit bubble. One way or another, total debt levels, private and public together, must keep increasing.

This process is incompatible—economically, socially, politically, and financially—with the survival of democratic capitalism. The only way out would be through a "re-capitalismization" of economies that could bring actual future command over real resources in line with the currently inflated levels implied by debt and asset prices.

The election of Donald Trump and the miracle of Brexit provide glimmers of hope. But the obscurantist forces of the "Progressive" establishment in the United States and of the vicious, explicitly anti-democratic, and fundamentally anti-market New Soviet Union (the "European Union"), which is prepared to do harm to the peoples of its own countries for the pleasure of doing harm to others, will fight tooth and nail to extinguish those glimmers.

Worse, the cultural and educational degradation of the past generation or two has produced populations whose younger cohorts are simply not attuned to the reality of working life. Structural reform, even were it allowed to happen, would be swimming against an immensely strong current. Massive default on debt seems ultimately almost inevitable.

Total debt has reached such levels that it poses a problem, although not an insuperable one.

RICHARD N. COOPER
Maurits C. Boas Professor of International Economics, Harvard University

By mobilizing and liquefying saving, debt has fueled growth in all modern economies. Without it, we would be much poorer; we should not forget that. But total debt has reached such levels that it poses a problem, although not an insuperable one. To understand debt problems it is necessary to decompose debts into various categories: who owes the debts, who holds them, what currency they are in, what is their maturity, how fast they are increasing, and so on. Full analysis is not possible in a short comment.

The question in this symposium mentions especially debts by the central governments of Japan and the United States, so they can illustrate some (but not all) of the analytical issues. Debt by both governments is overwhelmingly in their domestic currencies (yen and dollars), so that rules out the complications that may arise for the debtor through an unexpected change in exchange rates if debt is denominated in a foreign currency. For Japan, the debt is overwhelmingly held by domestic residents, which makes it amenable to domestic law. And much of it is held by government entities and the Bank of Japan, reducing significantly the amounts held by the public, including private banks, although it is still high by international comparison.

At present, interest rates are very low, even negative on some bonds. They could of course rise. If they did so for domestic reasons, that would signify a more buoyant economy, that is, more growth, which could in turn lower the debt/GDP ratio. They could also be pushed up by interest rates abroad, for example in the United States. But if that posed a serious problem, Japan could restrict outflows of capital, such as by financial institutions, in ways that are likely to restrain the rise in Japanese rates.

It is also important to remember that higher interest rates would have receivers, not just payers, and that on this account incomes would rise, stimulating GDP to some extent, depending on the behavior of the recipients. Also, taxes could be raised on all or some of the interest income. Higher interest rates are usually good for bank profits, but

if their balance sheets were seriously adversely affected (which depends on the maturity of their holdings), they could be recapitalized as necessary; or accounting rules could be modified.

U.S. federal debt is also in domestic currency and, similar to Japan, a substantial amount is held by government entities, including over $3 trillion by the Federal Reserve, which pays its earnings to the U.S. Treasury. Debt that must be sold to the public is about $12 trillion, roughly 70 percent of GDP. But a complication for the United States is that more than half of this debt is held by foreigners. A rise in U.S. interest rates would therefore accrue to foreigners, not U.S. residents, complicating possible responses. Some foreigners, especially central banks, would likely use higher interest earnings to augment their foreign exchange reserves; others would spend it, but not directly on U.S. exports. The expenditures would gradually spread throughout the global economy, eventually raising U.S. exports or augmenting foreign reserves.

There is no such thing as a global debt problem.

HEINER FLASSBECK
Director, Flassbeck-Economics, and Former Director, Division on Globalization and Development Strategies, United Nations Conference on Trade and Development

The answer to the question is no! There is no such thing as a global debt problem. Unfortunately, no subject in the world creates more confusion than debt. Many economists speak about indebtedness without a clear definition of debt and the assets they are referring to. Sometimes it even sounds as if the whole world could be over-indebted.

Analysis based on gross debt, that is, debt accumulated over people and all sectors, is problematic from the outset because we know that a netting of all debts and liabilities in the world against each other, brings net debt, or financial assets and financial liabilities, exactly to zero. For every liability there is an identical claim, and vice versa. At the global scale, the net financial assets at any given time are exactly equal to zero because the world at large has no one to borrow from or to provide a loan to.

The implications are straightforward: Savings (revenue exceeding expenditure) in one sector of a national economy or the world can exist only if other sectors assume the corresponding debt, otherwise the economy would collapse under the burden of a demand gap. If economic policies are not in a position to create a situation in which businesses invest and take on the debt that corresponds to planned savings, the government can either let the economy collapse (which sooner or later will burden it tremendously as it will get less revenue and has to spend more on unemployment benefits) or act immediately and take on the debt itself that is needed to fill the savings gap.

There is no other logic and hence, there is no way of paying back accumulated government debt because the savings problem has to be solved again and again. But in fact, there is no need to repay the public debt because there is no "debt capacity" of governments in their own currency, as Japan clearly proves.

There is no escape from debt.

CHRISTOPHER WHALEN
Chairman, Whalen Global Advisors

Today's public debt is entirely problematic, even at zero or negative interest rates. Economic expansion is a function of population growth and increases in productivity. Both metrics are at post-World War II lows in many industrial nations. Income and overall economic activity are basically flat, thus it is no surprise that the Fed and other monetary authorities have decided that a permanent 2 percent inflation target is needed to "stimulate growth." In fact, there are no central bankers who actually believe this fiction, but they repeat the words anyway.

In terms of the big picture, the burden of public debt is growing faster than the underlying economies. The situation facing the industrial nations led by Japan is that public debt is unpayable and thus radical monetary policies are used to confiscate the value held by savers, directly or indirectly. Japan is an extreme example of this syndrome, where a no-growth society is literally consuming itself. Europe is also caught in a low- or no-growth trap, where banks and other

"savers" are insolvent and the economy is unable to generate sufficient growth to allow for restructuring of bad debts.

The efforts of Mario Draghi at the European Central Bank are not so much about "reflating" the European Union's economy as keeping the mounting problem of accumulated debt in Italy, Greece, and other southern EU nations on ice until…? The eventual "solution" will be permanent monetization of debt by central banks, but this radical approach also implies the destruction of private banks, pensions, insurers, and other institutions built upon the concept of saving. There is no escape from debt. You can either repudiate it explicitly via restructuring or implicitly via monetary policy actions, but either way the realization of bad debt implies a significant reduction in the capital stock of nations and losses to investors.

Aggregate numbers do not provide much functional information.

MARIO I. BLEJER
Visiting Professor, Institute for Global Affairs, London School of Economics, and former Governor, Argentine Central Bank

The use of highly aggregate data on debt and credit to assess the global impact of leverage tends to result in misleading conclusions. The impact of debt on the economy does not depend on nominal aggregated volumes, but rather almost exclusively on debt composition, maturity structure, capacity for rollover, helpfulness of debt management policies, and effectiveness of utilization. For that reason, aggregate numbers do not provide much functional information in evaluating whether individual countries and the global system are indeed over-indebted and risking a new debt crisis.

Three questions are particularly relevant. First, how much of the public debt will have to be effectively paid eventually and how much could be permanently and automatically rolled over? The issue here is connected to the intra-government debt. Debt with other government agents may be perpetually rolled over, accruing never-to-be paid interest, and does not need to be regarded as effective debt in terms of debt repayments. A special issue has to do with government debt held by its central bank. That debt may need to be serviced, but it is not easily conceivable that governments would impose austerity on their citizens in order to repay their own central banks. This has implications for the so-called normalization of current monetary policies.

Second, does there exist a relevant crowding out of private investment when public credit increases, both domestically and internationally? Empirical evidence is relatively ambiguous. Government borrowing in local and foreign credit markets in principle could raise exposure and country risk. But private sector access to capital markets is, in many cases, facilitated by the presence of the sovereign. In general, it has been observed that the positive effect dominates at low to moderate levels of sovereign exposure, while the crowding-out effect asserts itself as sovereign default risk starts to mount.

Third, what are the limits of debt service for a normally working economy? It is well accepted that only a growing economy can service growing levels of debt. And there are indeed virtuous and vicious circles in this respect. Debt, both public and private, both domestic and foreign, can be applied to finance productive investment or government and private sector consumption. In the first case, the probability of efficiency gains and productivity increases is high and debt service is not a problem but rather the cost of maintaining or raising productivity. When debt finances mainly consumption (or corruption and inefficiencies), the vicious circle consolidates. These are the unsustainable cases in which debt and crises interact.

A more detailed analysis of the actual situation could give quite a substantive response. On the surface, the global system is still very far from a new debt crisis, but trends need to be analyzed within a relevant conceptual framework of the type outlined above.

We are facing an "austerity tax" due to completely unrealistic fears about government deficits.

DEAN BAKER
Co-Director, Center for Economic and Policy Research

The country is paying an enormous price in the form of an "austerity tax" due to completely unrealistic fears about government deficits. Following the

collapse of the housing bubble in 2008, output and employment fell off much further and longer than was necessary because of unfounded concerns about the deficit getting out of control. These concerns both limited the size of the initial stimulus and then forced a turn to austerity in 2011 when the economy was still very far from having recovered.

The immediate result was that millions of workers were needlessly kept from having jobs in these years. In addition, the weakness of the labor market led to an unprecedented shift from wages to profits that depressed wage income by at least 6 percent. Furthermore, the economic weakness of this period had a lasting impact on growth by curtailing investment, causing some people who were unemployed long-term to become unemployable.

As a result, GDP in 2017 is more than 10 percent below the level that had been projected by the Congressional Budget Office in 2008. We can think of this gap of almost $2 trillion ($6,000 per person annually) as an "austerity tax" that the deficit hawks have imposed on the country.

The austerity demanded by the deficit hawks was completely unnecessary, as any careful examination of the economy shows. The problem of deficits is supposed to be that excessive government spending is pulling resources away from the private sector. This is supposed to lead to high interest rates and/or high inflation. In fact, interest rates were at historic lows in this period and inflation was running far below the Federal Reserve's targets.

The argument that the debt will impose some huge burden on our children suffers from both bad arithmetic and bad logic. The burden of the debt is the interest payments we must make each year. Currently the interest on the debt, net of money refunded by the Federal Reserve Board, is around 0.8 percent of GDP. This is near a postwar low and far below the more than 3 percent of GDP we paid in the early and mid-1990s.

The obsession with debt payments also shows profound ignorance about the way the government obligates payments for the future. In addition to the money it takes in taxes, the government also pulls money away from the country by imposing patent and copyright monopolies. These monopolies are important mechanisms through which the government finances innovation and creative work.

The amount of money raised through these monopolies, which are effectively privately collected taxes, is very large relative to the economy. In the case of prescription drugs alone, the gap between protected prices and free market prices is likely in the neighborhood of $400 billion a year. This is more than 2 percent of GDP or 10 percent of total government revenue. Any budget analyst who ignores such massive commitments is simply not being honest.

Unfortunately, the well-funded Washington deficit lobby will be using its power to continue to sow confusion and prevent the public from thinking clearly about how government debt and deficits affect the economy. As a result we will pay a large price because policymakers listen to their recommendations.

The overall dynamics of debt are strongly pointing in the wrong direction.

ARTURO ESTRELLA

Professor of Economics, Rensselaer Polytechnic Institute, and former Senior Vice President, Federal Reserve Bank of New York

Instinctively, a global debt-to-GDP ratio of 300 percent seems to be cause for serious concern. However, although economic theory provides conditions under which a given level of this ratio is unsustainable, theory alone does not suggest that any particular level is unattainable. Empirical efforts to identify critical threshold levels have met with mixed results. So rather than obsess about a level, it may be more productive to think about the dynamics of the problem, its geographical dimensions, and the sustainability of debt in particular cases where risk looms larger.

When it comes to debt, perspective matters. The effects of changing economic conditions on debtors and creditors are plainly different, and individuals, firms, and countries may be both debtors and creditors simultaneously. At the country level, it is therefore important to consider not just gross but also net indebtedness. Moreover, there is no single interest rate tied to debt aggregates, but rather a multitude of rates that depend on risk, maturity structures, fixed versus floating, debt rollover practices, and new debt issuance.

When is the ratio of debt to GDP unsustainable? Growth of the numerator is frequently associated with the interest rate (or some weighted average of interest rates), which is certainly one of the main ingredients and is in fact the determining factor if a country rolls over maturing debt, runs a balanced primary budget, and does not monetize. Under those conditions, the ratio is unsustainable if the interest rate exceeds GDP growth, so that negative

GDP growth is enough to seal the deal regardless of the level of interest rates.

It follows that a simple preliminary screen to identify problem cases is to look for countries that have a high ratio of net indebtedness to GDP and a track record of negative GDP growth. Unless such countries can manage to run primary budget surpluses or turn the tide of growth, chances are that the debt ratio is unsustainable. By this metric, the problem has been clearly getting much worse globally since 2010.

For example, using the net international investment position as a proxy for net indebtedness and applying the European Commission alert threshold of -35 percent of GDP, only one sizable country had both a large negative debt imbalance in 2010 and negative GDP growth over the preceding five years (Iceland). By 2015, the list had swelled to seventeen countries, including Spain, Portugal, Greece, Cyprus, Tunisia, and Serbia.

Moreover, even some countries with positive GDP growth over this period experienced large increases in the net debt imbalance, notably the United States and Ireland. There are doubtless individual caveats to the results of this simple screen. However, even without a clear quantitative benchmark for the level of the debt ratio, the overall dynamics of debt are strongly pointing in the wrong direction.

The world is less well-positioned to deal with the next downturn, and debt overhang still inhibits growth in some countries.

GEORGE R. HOGUET
Chief Executive Officer,
Chesham Investments, LLC

A sharp increase in sovereign debt levels is an enduring legacy of the global financial crisis. The experience of Ireland, where general government gross debt as a percent of GDP rose from 42 percent in 2008 to 120 percent in 2013, and Spain, where it rose from 39 percent to 95 percent in the same period, shows how quickly the situation can change.

Several empirical studies have documented that sovereign debt-to-GDP ratios over 95 percent are associated with declining economic growth rates. But which way does the causality run?

Further, the impact on growth of "high" levels of indebtedness may differ in the short versus medium term. Developments in capital markets are often non-linear, and the debt trajectory may be just as important as the debt level.

In short, debt levels and dynamics and their impact on growth vary substantially by country. But the world economy is less well-positioned to deal with the next downturn than pre-crisis, and debt overhang still inhibits growth in some countries.

Quantitative easing, global aging, and the demand for safe assets have resulted in a decline in real yields. In several countries, the difference between interest rates and growth rates is now negative. This development likely will persist for some time and provides an opportunity for sovereigns to gradually deleverage. There are several examples of successful sovereign deleveraging in the past; asset sales could assist in the process.

But we should not be complacent. Fiscal risks are to the downside, particularly given large explicit and implicit government contingent liabilities. And in some cases, such as some massively underfunded state pension funds in the United States, pension promises will be broken.

Developments in the United States and China, which together account for 40 percent of world nominal GDP, will significantly impact the trajectory of world growth. The Congressional Budget Office forecasts U.S. net interest payments as a percent of GDP to rise from 1.4 percent in 2017 to 2.1 percent in 2022—hardly a vertiginous rise. A revenue-neutral tax package that reduces tax expenditure distortions and limits the growth of middle class entitlements combined with an infrastructure build out likely would increase potential growth and help to stabilize the debt-to-GDP ratio.

China's total debt-to-GDP ratio has risen to 257 percent over the past eight years and less economic growth is being generated per unit of debt. Local government financing vehicles, the real estate sector, and the shadow banking system are potential sources of financial vulnerability. With a central government gross debt-to-GDP ratio of 49 percent, the Chinese government has the capacity to assume the bad debts of the financial sector in the event of a crisis. But the risks of a sustained negative growth surprise are still significant.

Many factors, including slow U.S. productivity growth, have contributed to the weak global recovery. In a world of periodic credit booms and busts and continuous radical uncertainty, fiscal prudence, new thinking about debt (such as limiting the tax deductibility of interest, enhanced macroprudential tools, and structural reforms to enhance growth) is appropriate.

The high debt levels call for decisive efforts.

EWALD NOWOTNY
Governor, Oesterreichische Nationalbank

Recent macroeconomic and survey data indicate that growth and inflation are finally recovering. However, the severe recession and the need to step in for failing banks has left the euro area countries with elevated public debt levels. On average, the euro area's public debt-to-GDP ratio increased from 65 percent in 2007 to 90 percent in 2017.

The current economic upturn is the right moment to revisit the lessons of the crisis. A first lesson was that existing fiscal rules were not able to prevent fiscal tensions. Ireland's public debt, for example, had stood at 24 percent of GDP in 2007, but reached almost 120 percent as the housing bubble collapsed. Long-term bond yields skyrocketed and reached almost 14 percent.

Pre-crisis fiscal rules suffered from a number of weaknesses: They did not provide sufficient incentives for carrying out consolidation measures in good times. Furthermore, they paid much less attention to debt than to deficit figures. During the crisis, high public debt curtailed the power of governments to step in for stressed banks and to compensate for lacking private demand. Finally, the focus on fiscal rules implied that the buildup of imbalances via private debt was disregarded. As banks were bailed out by the government, private debt translated into public debt.

Today, fiscal rules show greater economic soundness. Well-designed fiscal rules that are enforced by an independent fiscal council may potentially lower financing costs even for governments with a weak track record. Since 2012, the Macroeconomic Imbalance Procedure has monitored private debt as part of its scoreboard to detect internal and external imbalances. Similarly, the banking union and the new macroprudential instruments are important elements to ensure that imbalances in the financial system are detected early on and that fiscal costs of banking crises are reduced.

The second important lesson is that we need to complete monetary union to make it more crisis-resilient. National fiscal policies need to be coordinated to a certain degree within the euro area so that fiscal stress does not hamper the transmission of monetary policy. Many proposals are on the table. A fully fledged fiscal union is certainly beyond reach at the current juncture, but partial aspects, such as a limited European transfer system or a joint euro area debt issuance mechanism (safe bonds), are worth considering.

The third important lesson is that the sustainability of public debt largely depends on whether markets perceive a stressed country to be backed up by credible rescue mechanisms. Today, the European Stability Mechanism acts as a shock absorber, and ideas have been raised to develop it into a European Monetary Fund.

Despite this institutional progress, the high debt levels call for decisive efforts to make the euro area economy fit for the time when the next crisis hits. Lifting the growth potential would allow economies to grow out of debt. The "Juncker Investment Plan" is a move in the right direction, but it needs to be complemented by national, budget-neutral initiatives to foster investment in infrastructure, technology, and skills.

The reasoning between private and public debtors differs significantly.

MICHAEL HÜTHER
Director, Cologne Institute for Economic Research, and Gerda Henkel Adjunct Professor, Stanford University

Debt has been part of economic interactions ever since some people started to accumulate goods and others intended to consume more than they had accumulated. As soon as nation states were formed, again economic interactions and different time preferences led to inter-border lending. If carried out at free will, such credit-contracts led to Pareto-improving efficiency gains.

Although efficient in theory, these contracts bear a risk. Namely, one of the contractors is obliged to amortize his debt at some point in the future—certainly under uncertainty. This is why typical moral hazard problems that come with indebtedness can be traced back to very early economic history. The tyrant of Syracuse is supposed to have triggered high inflation rates on his currency in order

to reduce the real value of his debt that had been incurred to finance costly wars in the Mediterranean Sea in the fourth century B.C.

Due to these complications, an important literature has developed around the different types and different problems of indebtedness. Debt can be private and public. It can be held by inhabitants of the same country or another country. It can be defaulted on explicitly or implicitly (that is, through inflation or devaluation).

In all cases, however, the basic logic stays the same. Parties have different time preferences for their consumption and investment decisions and hence come together to smooth their consumption over time. A stylized but plausible example for state interactions is the comparison between a young and an old society: the young society might credibly commit to pay back debt with their future income. In contrast, the old society has to rely on future generations to pay back its debt.

Both promises can or cannot be credible. The international capital markets judge the respective credibility, assign an interest rate to a credit contract, and sometimes tolerate particularly high debt levels—as in Japan (around 250 percent governmental debt). They can be right or wrong in their judgement.

Risks were certainly underestimated with regard to housing mortgages in the United States during the early 2000s and for Argentina (around 50 percent governmental debt) before the country defaulted. History shows that there is no incremental worsening of credit ratings via an increasing risk premium over time—remember the case of Greece during the first decade after the year 2000. Capital markets prefer black and white decisions due to—event driven—sudden revaluations.

Interestingly, the reasoning between private and public debtors differs significantly. Whereas a private entity usually goes bankrupt, a sovereign declares to have gone bankrupt. This subtle distinction is crucial in understanding the debtor's political economy: A government loses its democratic legitimacy if it starts paying a too-high share of tax income on interest.

The problem is aggravated if the payments address foreign claims. Again, Argentina is an interesting example—this time under the Kirchner government—where this narrative was taken to an extreme and significantly restricted access to the capital markets was taken into account, in order not to amortize debt held by foreign hedge funds.

Argentina is also a stereotypical example of a country that intends to "creatively" downplay the real value of its debt burden. Like the tyrant of Syracuse, Mrs. Kirchner first took control over a theoretically independent central bank and started printing money, thus triggering high inflation rates. In a second step, she showed a remarkable richness of ideas when claiming inflation rates to be significantly lower than they were and making real money by selling inflation-indexed bonds.

Private debt is a tricky thing, but when it comes to public debt, a state's very legitimacy is at stake. Politicians—debtors and creditors—used to go to war for their claims. Fortunately, this time is over. Unfortunately, basic moral hazard problems remain unsolved. The lessons from history are always the same.

Debt itself is not the problem.

HOLGER SCHMIEDING
Chief Economist, Berenberg

Debt itself is not the problem. My debt is your asset, and vice versa. The real questions are first, whether the borrowers are using the funds in a way that enhances their capacity to service the debt in the future; second, whether systemically important debtors are borrowing at an unsustainable rate; third, whether banking systems are resilient enough to cope with the inevitable occasional defaults; and fourth, whether central banks are ready and able to act as lenders of last resort if need be so that debt problems will not trigger another financial and economic meltdown, as they did in 2008–2009.

The answers are mixed. Yes, policymakers have by and large learned the lessons of 2008 and the euro crisis. If insolvent banks need to be closed, they will be wound down in a more orderly way than Lehman was in 2008, a mistake that sparked the Great Financial Crisis. And yes, the European Central Bank is now ready to act as lender of last resort to prevent the spread of contagion in the region instead of hesitating, as it did in 2011. Also, bank balance sheets seem less leveraged than they were in 2007.

In addition, debt issues are less acute now than they were often in the past. Across most of the Western world, companies and governments have used the period of ultra-low interest rates to lock in favorable conditions for much of their current debt. Even if interest rates now rise substantially, it will take many years before the worsening financing conditions for new debt will hurt most of them materially. In addition, borrowing costs will likely

rise largely in response to a firming economic recovery, promising governments more tax revenues and companies stronger earnings. That will help them to service the debt.

Unfortunately, not all is well. First, many governments, notably those of the United States, United Kingdom, and Japan, are still running fiscal deficits well above what would be prudent at times of normal economic growth. As they are not using the funds productively enough, they will eventually need to arrest the rise in their public debt through painful austerity, most likely in the wake of the next recession. After recent fiscal corrections, most but not all eurozone countries now seem to be on a more comfortable fiscal trajectory.

Second, the rise in aggregate Chinese debt looks unsustainable. For too long, China has delayed the need for painful structural changes including the correction of overcapacities by simply throwing money at problems.

A Chinese crisis is not yet imminent. As capital flight and inflation remain under control for the time being, China could still afford to put bad debt on its central bank balance sheet if need be to prevent a major economic crisis. However, the continuing surge in Chinese debt and the likely gradual increase in inflation will eventually constrain the ability of Chinese authorities to contain the risks. China may still adjust its policies in time to defuse the debt bomb. But the risk of a major Chinese calamity keeps rising. Unlike occasional issues in smaller countries, a Chinese debt crisis would be a global concern.

It is difficult to generalize about the perils of debt.

RICHARD JERRAM
Chief Economist, Bank of Singapore

It is difficult to generalize about the perils of debt. There are many relevant questions to ask. Is the debt unusual for a country's level of development? What are the assets (if any) backing the debt? How quickly have debt levels increased? How robust is the debt servicing capacity? What is the scale of debt in foreign currency?

It is also hard to judge how much of a straightjacket comes from high debt levels. A year ago, a senior Chinese government official noted that "a tree cannot reach the sky" in a nod to the very rapid growth of debt levels in recent years, which are quite reasonably viewed as unsustainable. Since then, the economy has continue to grow and credit has risen even faster, so there are still no signs of a straightjacket. Even though the process is not limitless—the debt cannot reach the sky—there is no clear threshold that signals a constraint.

We can also find cases in Asia where there is too little debt. In several economies, the shock of the Asian financial crisis two decades ago led to an extended period of current account surpluses and foreign reserve accumulation that was probably excessive and impeded domestic investment. Many of the fast-growing countries in the region could tolerate moderate external deficits as long as that reflects a higher level of investment. There is no virtue in exporting capital to the world when domestic returns are potentially much better.

Finally, I have a problem with some analysis related to debt service costs. We often see claims along the lines that Japan has government debt of 240 percent of GDP, so if bond yields rise from zero to (say) 3 percent, it will destroy public finances. Even if we ignore the fact that the Bank of Japan owns about 40 percent of outstanding bonds, the average maturity of the bonds is more than eight years. This means that it will take a long time for the interest bill to rise and—as long as higher interest rates reflect faster nominal growth—there is some potential to reduce the debt burden.

Debt is now the elephant in the room.

WILLIAM R. WHITE
Chairman, Economic and Development Review Committee, OECD, and former Economic Adviser, Bank for International Settlements

Having risen to around 300 percent of global GDP, debt levels have reached a point where many countries face either a fiscal debt trap, a monetary debt trap, or both. In short, macroeconomic policy is in a straightjacket. It has been effectively immobilized by the

fear of undesired consequences against the backdrop of such high debt levels.

A fiscal debt trap first requires sovereign debt levels thought too high to allow further fiscal stimulus. Negative market reactions could plausibly spark higher interest rates, raising debt service and also debt-to-GDP ratios. The "trap" closes when fiscal restraint seems to threaten the same outcome, as austerity could drive down GDP faster than it reduces the sovereign debt level. A monetary debt trap implies a similar immobility.

Easing monetary policy encourages more private debt accumulation and rising debt ratios. The "trap" closes when monetary tightening again threatens the same outcome. Higher debt service charges could lead to serial bankruptcy, menacing banking systems and possibly sharply lowering GDP.

How did we get into these traps? The answer is that, for decades now, both fiscal and monetary policies have been conducted in a markedly asymmetrical fashion. In downturns, government deficits were generally allowed to rise more than surpluses were accumulated in upturns. As a consequence government debt ratios ratcheted up over successive cycles. Similarly, in downturns, interest rates were allowed to fall more than they were raised in upturns. As a consequence, interest rates ratcheted down and private debt levels ratcheted up over successive cycles. Both fiscal and monetary authorities judged the appropriateness of their policies solely in light of the near-term effects on aggregate demand. The possibility that the cumulative effects of these policies might eventually preclude their future use received almost no attention. Nor did cumulative negative effects on the supply side.

We are now at the end of that very long path. Debt is now the elephant in the room whose presence must be openly discussed. Moreover, in many countries off-balance-sheet promises (such as pensions and medical care) dwarf contractual obligations. And to add to the gloom, the favorable global demographics of the last thirty years or so are now turning into headwinds slowing down global growth and the capacity for debt service. While structural reforms to foster faster growth would surely help, as would the use of available "fiscal space," their potential benefits should not be overestimated.

Realistically, we must now envision some combination of more explicit debt restructuring, acceptance of a moderately higher level of inflation, and even financial repression. Admittedly, each of these comes with unwelcome side effects, yet they could also allow an orderly unwinding of debt ratios that have become unsustainable. The alternative would be the disorderly unwinding seen many times in history. For both economic and political reasons, with the latter problems already increasingly evident, the disorderly path is not the one that responsible authorities should follow.

Is debt a danger? It depends.

GUSTAV A. HORN
Research Director, Macroeconomic Policy Institute, Hans-Böckler-Stiftung

The present debt level in the United States and many other economies is still very high, indeed. In particular, the debt burden has not yet fallen to levels seen before the Great Recession. Up to now spending on interest payments nevertheless was subdued due to the low interest rates. As these start to rise, at least in the United States, so do interest payments. It is obvious that the budget share for these payments may also increase in due course. Is that a danger to growth and economic stability?

The answer is a typical economic one: It depends. There would be no great danger if the economic development follows a usual pattern. In this case, higher long-term interest rates are the result of an accelerating economic activity. That was the reason why the Fed had raised its federal funds rate in the first place. The central bank considered the U.S. economy on a sound recovery track. In other words, profits and household incomes increase at a significant speed. So do tax revenues from profits, income, and sales.

Given that government on the one hand has to pay more to serve the debt with higher interest rates, but on the other hand it receives higher tax revenue during a recovery that make exactly this possible. The Fed will probably raise interest rates slower than the recovery spreads and demand for credit will also only slowly pick up. Then the relation between interest payments and tax revenue initially will decrease, which makes it even easier for the government to serve the debt. Only in a late stage of a boom this may change when interest rates soar.

However, there are potential scenarios that are less optimistic. What if the perception of a sound recovery by the Fed is wrong and economic activity stalls again? Then interest rates are rising whereas tax revenues are not. This could bring the government into difficulties sooner or later. Or perhaps the government itself commits errors. Looking at the rise in tax revenues, there could be the temptation to prematurely lower taxes to please the voters. That could easily lead to even higher deficits. The hope

that lower taxes may finance themselves has been rejected by empirical studies long since.

Furthermore spillover effects to other economies could trigger a debt crisis, too. If their recovery is weaker than in the United States, but their interest rates nevertheless rise due to narrowly connected financial markets, governments there may also come into financial difficulties if they are already highly indebted. Presently there are signs of a global recovery. Therefore this fear may be unfounded.

In sum both outcomes are possible: A softly declining public debt burden and a hard landing in a debt crisis. The latter unpleasant alternative is mainly based on economic policy faults committed either by central banks or governments.

The current U.S. and worldwide debt load is manageable, but managing it as interest rates rise won't be pleasant.

ROBERT SHAPIRO
Chairman, Sonecon, and former Under Secretary for Economic Affairs, U.S. Department of Commerce

The current U.S. and worldwide debt load is manageable, but managing it as interest rates rise won't be pleasant. Certainly, financial balance sheets in the United States and other advanced economies are in sounder shape today than several years ago, both from the natural increase in risk adversity by financial institutions and from national and international reforms put in place following the 2008–2009 crisis. In a pattern familiar from previous financial crises, however, the deleveraging by financial institutions, businesses, and households following the crisis has kept growth slow even in a sustained environment of near-zero interest rates.

In such a fragile environment, rising interest rates in the United States pose a series of difficult challenges, especially for the federal government. As interest rates rise, growth will slow further; and since the government has not deleveraged at all—quite the opposite—this scenario presents acute problems for public policy. Given the major increase in federal debt, rising interest rates will sharply drive up debt service costs, and slow growth will dampen the inflows of government revenues. The combination will produce new fiscal pressures that will squeeze other government obligations and areas of spending. In that context, tax or spending stimulus to support growth may well be unable to compete politically with public demands to maintain critical areas of domestic spending. Most important, this conflict will likely doom efforts to enact broad tax cuts or substantial additional spending.

The result is that rising interest rates will likely preclude much of the defense increases and the business and personal tax reforms promoted by President Trump and Republicans in Congress, as well as much of the new infrastructure program promoted by Trump and Democrats in Congress. It gets worse. In an aging expansion already burdened by negligible productivity growth and the slowdown in job creation that accompanies 4.4 percent unemployment, rising interest rates without new demand or supply-side stimulus can only lead to even slower growth or a recession. The final bill from the financial crisis is coming due, and the costs almost certainly will be borne by the expansion and the Trump-Republican economic agenda.

Market crises are generally the result not of too much debt, but of the mis-pricing of the credit risk associated with that debt.

DESMOND LACHMAN
Resident Fellow, American Enterprise Institute

Global economic and financial market crises are generally the result not simply of too much debt having had been issued in aggregate. Rather, they are the result of the mis-pricing of the credit risk associated with that debt and of a meaningful part of that debt having been issued by debtors least equipped to service it. Sadly, many years of highly unorthodox monetary policy by the world's major central banks seems to have set us up for yet another major global economic and financial crisis when interest rates start to be normalized in the world's major economies.

Among the more disturbing aspects of today's global debt landscape is the fact that China, the world's second-largest economy, has experienced a credit bubble that has seen its debt increase by 90 percent of GDP in the short

pace of eight years, or at a pace that has no precedent among the world's major economies. It is also hardly reassuring that a country with as sclerotic an economy as that of Italy, the eurozone's third-largest economy, has a sovereign debt-to-GDP ratio in excess of 130 percent and a banking system with a non-performing loan ratio of 18 percent. Similarly, one has to be concerned by the explosion of debt by the corporate sector of the emerging market economies in general and by the US$3.5 trillion increase in those companies' U.S. dollar-denominated debt in particular.

Compounding matters is the fact that global investors have been induced to stretch for yield by the massive balance sheet expansion of the world's major central banks and by the prolonged pursuit of zero interest rate policies. This has resulted in a marked tightening of credit spreads across markets to levels that do not adequately compensate investors for the historic risk of credit default in these markets. This would seem to be particularly the case in the European sovereign debt market, the emerging market corporate debt market, and the U.S. high-yield debt market.

Past experience suggests that global credit bubbles burst when the Federal Reserve starts to raise interest rates after a prolonged period of ultra-easy monetary policy. There is every reason to think that this time will be no different. For this reason, one has to hope that the Trump administration is readying itself to provide the world with the economic leadership that will be needed to best resolve the fallout from the bursting of the global credit bubble.

America's public debt is more snuggie than straightjacket.

DONALD B. MARRON
Institute Fellow and Director of Economic Policy Initiatives, Urban Institute

Thanks to low interest rates, America's public debt is more snuggie than straightjacket right now. Our debt more than tripled over the past two decades, yet net interest payments last year were the same as in 1996. Relative to economic activity, interest payments are at historical lows, 1.3 percent of GDP in 2016. That's smaller than before the financial crisis.

Low interest rates gave us fiscal space when we needed it. But there's a good chance our fiscal attire will soon tighten. The Congressional Budget Office projects that the federal interest burden will more than double in the next decade. Net interest payments will reach 2.7 percent of GDP by 2027, well above historical averages. If so, Uncle Sam will have less wiggle room.

Federal interest payments will outpace the economy for three reasons. First, modest economic growth and Federal Reserve tightening will boost interest rates. The U.S. Treasury will pay more when it rolls over existing debt and finances new deficits.

Second, nominal economic growth won't do enough to soften rising debt burdens. Nominal growth was the key to reducing America's last comparable debt burden after World War II. Today, our aging workforce, modest productivity gains, and restrained inflation limit nominal growth.

Third, federal spending is scheduled to grow faster than revenues. As America's population ages, spending on Social Security, Medicare, Medicaid, and federal pensions will grow briskly. Add in rising health care costs, and spending growth will outstrip revenue growth.

Each of these trends is uncertain. Interest rates may surprise to the downside, as they have repeatedly in recent years. Nominal growth may surprise to the upside. Deficits may come in lower than expected. On the other hand, surprises could go the other way, increasing deficits.

Given that outlook, policymakers should take steps now to reduce future fiscal pressures. And they should plan to course correct over time as we learn more about America's fiscal path.

To boost nominal growth, policymakers should pursue a broad range of strategies. Thoughtful reform of taxes, social insurance, and regulations could encourage work and investment. Investments in infrastructure, workforce development, education, and research and development could boost productivity. Welcoming immigrants could expand our workforce. The Federal Reserve could help by treating 2 percent inflation as a target, not a ceiling.

To avoid excessive deficits, the White House and Congress should slow spending and increase revenues. The options are well known and not worth rehashing here. Step one is paying for infrastructure, business tax cuts, or other new initiatives. Step two is gradually reducing future deficits. Big changes don't have to take effect immediately. Indeed, there is much to be said for scaling them in gradually over time. But policymakers should get started. The economy has recovered enough for the Fed to start normalizing monetary policy. Fiscal policymakers should do the same.

Japan's problem has been a balance sheet recession.

RICHARD C. KOO
Chief Economist, Nomura Research Institute

Debt cannot grow unless someone saves. But if someone is saving, someone else must borrow and spend those funds to keep the national economy from falling into a deflationary spiral. In a normal world, interest rates adjust, sometimes with the central bank's help, to ensure that all saved funds are eventually borrowed and spent.

When a debt-financed bubble bursts, however, the private sector is left facing a debt overhang. In order to restore its financial health, it is forced to minimize debt (that is, to save) regardless of the level of interest rates. And when the private sector deleverages in aggregate, the economy falls into the kind of deflationary spiral now known as a balance sheet recession.

Japan's private sector in aggregate has been saving on average 8.5 percent of GDP for the last twenty years. The United States and eurozone private sectors have been saving on average 5.3 percent and 5.1 percent of GDP, respectively, for the last eight years in spite of zero, and in the case of the latter, negative interest rates. With no private sector borrowers left, governments had to borrow and spend these savings in order to return them to the economy's income stream, which is why public debt has grown so much in recent years. And this borrowing must continue until the private sector is ready to borrow again.

Although that sounds like a tall order, savings that had to be invested in fixed-income, home-currency assets necessarily ended up in government bonds, since the government was the last borrower standing. That pushed government bond yields in most countries to unthinkably low levels. Although central banks' quantitative easing policies have distorted bond yields, Japan's ten-year bond was yielding an average of 1.3 percent in the ten years before the Bank of Japan launched quantitative easing in 2013, at a time when the public debt was already over 200 percent of GDP. These low yields are the market's way of telling the government that if any public works projects are needed for the nation's future, the time to implement them is now.

Monetary policy is largely ineffective when the private sector is minimizing debt. This means the most important task for policymakers facing balance sheet recessions is to find and implement public works projects capable of earning a social rate of return in excess of these super-low government bond yields. Although these projects will result in a larger national debt, they will not increase the burden on future taxpayers because they are self-financing. This policy option is not available during normal times when the private sector is maximizing profit because interest rates would be much higher and self-financing public works projects would be much more difficult to find. All countries suffering from a private sector savings surplus at near-zero interest rates should therefore be putting their best and brightest to work in identifying and implementing these self-financing projects instead of wasting time worrying about the size of the national debt.

No straightjacket.

STEPHEN AXILROD
Author,* The Federal Reserve: What Everyone Needs to Know *(Oxford University Press, 2013)

In general, I would say debt is not a straightjacket for the world economy. But political and social conditions are so complex and full of uncertainty that one can hardly say how the high level of debt will influence the practice of policy. Circumstances vary all over the world. Greece, for instance, long since in a straightjacket imposed by creditors, would now dearly like to see it loosened. How then will important EU creditors react, having become more beleaguered from other quite threatening existential issues?

In the United States, we have built up a sizeable amount of debt in the course of the slow but fairly steady economic growth that has by now taken us from the credit crisis economic low to a virtual full employment. Yet credit availability remains ample—hardly any kind of straightjacket in sight. Moreover, the new political regime here seems to be pursuing policies so driven by politics in the short run that one cannot in any way judge how its longer-run stance, whatever it turns out to be, would take account of something so abstruse as the nation's current high debt level (and future commitments) in relation to economic performance.

The recent political changes around the world—like Brexit, a possible Frexit (since rejected), and Trumpit—have, so it seems, made economic growth, or efforts at it, more urgent. The urgency comes because the recent political surprises all reflected protests from those left out of the economic pay-off from the technological innovations and productivity gains (and associated bulge in profits) of the late 1980s and 1990s.

The attainment of greater and more widespread growth is now seen as important to boosting public confidence and political stability. While the high debt load will not in itself deter an acceleration of growth, the expansion may turn out to be short-lived. For sustainability, and to avoid awakening public fears of excessive debt burdens, growth would be best buttressed by such fundamentals as some rise in lagging productivity, favorable conditions for more labor force participation (improved education, better training, and so forth), and continued worldwide market expansion (in part by minimizing modern-day beggar-my-neighbor policies, like my wall is bigger than your wall). More growth might also be short-lived if key central banks fail to keep inflation (which will rise) from rising too much.

Indeed, if all goes well as growth picks up, there should be great relief among many financial asset holders who can turn the low-yielding assets that have dominated portfolios for many years into ones with yields more consonant with something like real prosperity. Put another way, major central banks should find that the stock of debt in effect turns over more quickly in helping to finance growth. Debt-to-GDP ratios would tend to decline.

The notion that rising debt cripples indebted economies is always wrong.

JARED BERNSTEIN
Senior Fellow, Center on Budget and Policy Priorities, and former Chief Economist and Economic Adviser to Vice President Joe Biden

Among the many important things economists seem to continuously get wrong is the prediction that rising debt levels will soon cripple indebted economies. Simply plot any official projections of yields on U.S. Treasuries against actual outcomes and you'll see what I mean. The projections constantly predict that around the next corner rates will climb back up to "normal levels," and yet they do not. True, interest payments on the debt increased this fiscal year—by 0.2 percent of GDP—but that was due to the impact of higher inflation on inflation-protected bonds. Last year, those adjustments were negative.

There are two opposing risks to this critical misunderstanding, both of which are operative in economies today. First, rising sovereign debt levels have led to austere fiscal policies which have in many cases exacerbated underlying economic weakness, causing deep and unnecessary pain to households suffering from insufficient demand and thus incomes. In the United States, we clearly pivoted to deficit reduction too soon—in 2010—thus prolonging the time it would take us to finally close our output gaps. In Europe, because sovereign debt levels in some countries, notably Greece, were truly unsustainable (defined as debt service growing faster than GDP), painful fiscal austerity was meted out not just there but in many other countries where there was no correlation between debt prior to the crisis and rising debt and interest rate spreads after the crash.

Second, and conversely, there is the well-established Minsky cycle, wherein policymakers and investors willfully forget and thus underprice credit risks. We see this clearly in the United States, as the Trump White House and the Republican Congressional majorities are egged on by the finance community to deregulate financial markets, repeal Dodd-Frank (financial reform) and shutter the Consumer Finance Protection Bureau.

On the U.S. sovereign debt side, though they say otherwise for the cameras, there is a strong sense among policymakers in the majority that budget deficits—in this case, structural deficits that grow even as we close in on full employment—don't matter, at least if they are generated from passing unpaid-for tax cuts. Though tax "reform"—operationally, tax cuts—is proving to be legislatively challenging, any reasonable forecast will be for our budget deficits to continue to rise, and most likely accelerate.

We must tie these two opposing strains together. If higher debt levels have not shown up in higher interest rates, then why are they a problem? Does this not justify the cavalier views of the deregulators and the politicians?

No, for three reasons. First, while I see no obvious, systemic credit bubbles in large economies (such as the United States or Europe), if regulators are urged to fall asleep at their switches, or those switches are turned off, risk will once again be underpriced. Second, surely as the U.S. Federal Reserve tightens and some inflation comes back into the system, interest rates across the yield curve will climb, though how much is anyone's guess. Third,

and most importantly from my perspective, the reason to worry about growing structural debt is not interest rate crowd-out, slower growth, and more burdensome debt service. It's that our politicians will use it as an excuse to fail to meet the challenges we know we face, including our aging demographics, poverty and inequality, climate change, and geo-political threats.

We never know when public or foreign debt becomes excessive until it does.

ANDERS ÅSLUND
Senior Fellow, Atlantic Council, and co-author with Simeon Djankov,* Europe's Growth Challenge *(Oxford University Press, 2017)

Views on debt vary greatly. In good times, "financial depth," that is, the volume of debt in relation to GDP, is praised for contributing to growth. In bad times, excessive debt, a tenuous concept, deprives a country of access to international finance.

We never know when public or foreign debt of a country becomes excessive until it does. It varies greatly with country. Big countries with deep financial markets, such as the United States, the United Kingdom, and Japan, have proven that they can manage far more debt than most of us thought possible.

But during the global financial crisis and the eurocrisis, eleven out of twenty-eight EU members lost access to international finance temporarily. Small countries have to limit their public and private debt burdens more than big countries. Of the eleven EU countries that have less than 60 percent of GDP in public debt, only Poland has more than ten million inhabitants.

For the smallest countries, the lesson is clear: Abandon your own currency and join a bigger currency! The world never had so many separate currencies as in 1998 before the euro was formed. This mistake is gradually amended. It is not an accident that ten of the twelve EU countries with less than six million inhabitants have adopted the euro.

When the Baltic countries suffered from a liquidity freeze in 2008–2009, many economists urged them to devalue, but the Baltic leaders understood that their cure was access to the liquidity of the European Central Bank, which they obtained by maintaining their currency boards, tightening their fiscal balances, and thus qualifying for the euro.

The natural government response to large public debt is, as Carmen Reinhart has taught us, financial repression, as governments favor negative real interest rates to reduce their debt. Western governments have pursued such responses since the global financial crisis in 2008, and they are likely to last. How can central bankers justify rate hikes, if they would cause financial crises?

The beneficiaries are governments and the truly rich, while the victims of financial repression are small savers, notably pensioners, who have seen one decade of declining real pensions. Why should monetary policy punish poor savers to the benefit of the truly wealthy? Such a policy cannot be socially or politically sustainable in the long run. While people express concern about rising inequality, governments actively promote it also by taxing labor two to three times more than the capital gains of the richest.

The ultimate debt problem is China with a total debt burden close to 300 percent of GDP, while emerging economies should not have more total debt than 100 percent of GDP. We have waited quite some time for a financial crisis to erupt in China, but sooner or later it should arrive.

Debt has shifted to emerging economies.

ANDREAS DOMBRET
Member of the Executive Board, Deutsche Bundesbank

Debt in itself is not a problem—it is an essential ingredient of an economy. It only becomes problematic when its level is excessive and unsustainable. Unfortunately, debt accumulation has been a key ingredient in the recipe for sustained global GDP growth since the 1970s, once post-war growth had subsided and stagflation was haunting developed economies.

The consequence was a financial market bubble and financial crisis that hit the world economy in 2008—the repercussions of which we are still tackling.

Has the wave of debt receded? Not really. Instead, it has moved elsewhere. To some degree, private debt has become public, and advanced economies' debt has shifted to emerging economies.

Deleveraging has been insufficient in some places and is not occurring in others, and this is a problem. There is a growing consensus that too much debt and too much finance in general are counterproductive for advanced economies. While an economy profits strongly from financial deepening—that is, the development of a strong, diversified system of financial intermediation—the marginal effect of ever more financial deepening, or debt, decreases and, at some point, turns negative. As such, too much public debt has been associated with negative impacts on growth. Furthermore, financial sector growth in already advanced economies is, if anything, harmful to productivity growth and increases inequality.

But why has debt continued to mount and why have deleveraging efforts been weak? The reason is that debt still plays a vital role in the economy—rapid deleveraging might slow down economic growth. And that would not be politically acceptable, because in the age of digitalization and globalization, economic expansion and credit growth have become necessary to offset relative and absolute income losses. Once these offsetting effects dissipate, more people will be dissatisfied with the economic order.

Therefore, debt is not just a straitjacket in terms of growth. It has been and continues to be the lubricant that many falsely hope will help the economy slide out of the shackles of stagnation. But instead of removing the constraints, the world economy used too much of the debt lubricant, and ultimately slipped up on it. As a result, the global economy is still struggling to find a sustainable and less debt-reliant way out of debt and stagnation, or "debtnation."

What can be done to get out of this cycle? Dependency on debt mountains and oversized financial markets will not bring continued growth, sustainable development, or political stability. Our economic policies cannot rely on sustained or even increased levels of debt, but must pursue a more sustainable strategy.

What we need instead is a much more complicated policy mix, which rests on three pillars: first, bringing private and public debt back to sustainable levels; second, implementing more sustainable growth-enhancing policies, which should target investment in infrastructure and innovation; and third, not depending on growth alone, since many policy problems cannot be solved by means of higher GDP growth, but instead demand policies of sustainable resource utilization and intelligent countermeasures against rising inequality, such as increased public expenditure on extending educational opportunities.

The base case is a drag on medium-term global growth.

MICHAEL J. BOSKIN
Tully M. Friedman Professor of Economics and Hoover Institution Senior Fellow, Stanford University, and former Chair, President's Council of Economic Advisors

The aftermath of the Great Recession/financial crisis has left most economies with debt levels well above historic norms, in some cases dangerously so. Both public and private debt, appropriately used, can play a vital role in economic prosperity, but not without cost and certainly not without risk of damaging disruption. For example, attempting to boost the economy with deficit spending may generate a temporary boost under some circumstances, but the effect soon turns negative. So it needs to be repeated over and over, like a drug, to sustain the economic high. That strategy saddled Japan with the world's highest public debt-to-GDP ratio, to little short-run benefit in exchange for a longer-run growth straightjacket.

Private deleveraging, a temporary drag on growth, is at varying stages in different countries, as is bank recapitalization. But almost everywhere, public debt levels are greatly elevated, leaving less future fiscal capacity in an economic emergency. And in the long term, at elevated levels, public debt is a drag on growth. There are multiple possible channels. First on my list are the expectations, and then the reality, of higher taxes to pay the interest if the debt is refinanced and/or to reduce the debt itself, perhaps eventually worsened by higher interest rates. Less likely for major economies such as the United States, Japan, and the northern European countries, more so for high-debt southern Europe periphery countries and some developing economies, is a serious financial crisis. And with combined developing economy GDP now rivaling that of the advanced economies, with major trade and cross-border financial linkages, any contagion in the latter would spill over into the former. So we should not be complacent, despite the (finally!) modest apparent cyclical upturn. The base case is a drag on medium-term global growth from the higher debt.

I recently analyzed the long-run implications of the projected worsening of the U.S. fiscal position, using alternative estimates of the effects of debt on growth, from

International Monetary Fund and academic studies to a simple production function, with government debt eventually crowding out tangible capital. The result: the entitlement cost-driven rise in debt, if not controlled, will cut the gains in the standards of living by two-thirds in a generation. Numerous studies suggest the best route to mitigate these problems. Because high debt ratios eventually damage long-run growth, fiscal consolidation should be phased in gradually as economies recover, so that debt-to-GDP ratios are declining as economies reach potential and are eventually reduced to more normal levels. The consolidation needs to be primarily on the spending side of the budget. Pro-growth tax and regulatory reform—structural reforms, in IMF and OECD-speak—can helpfully complement consolidation. But pro-growth tax reform will be undone quickly unless spending growth is controlled due to the pressure it would create to raise taxes. Kicking the can down the road to deal with debt many years later risks far worse consequences: greater economic disruption and unnecessarily severe human suffering.

There is reason to worry about debt.

JAMES E. GLASSMAN

Managing Director, JPMorgan Chase & Co., and Head Economist, Chase Commercial Banking

The current debt backdrop is not likely to be a straightjacket. The proof lies in financial market signals, such as historically low global interest rates. Debt would be a stranglehold if the public sector's credit needs clashed with the private sector's and drove up rates. But that's not the case, because global investor appetites have easily absorbed rising debt loads. But that's about the past. The evolution of debt trends will be daunting if the economy's growth potential remains slow and the nation's health care resources are not better managed. Failure to align the cost of the public sector's safety net with its financial resources will be a growing challenge for markets as the global economy returns to full strength.

Despite the daunting numbers, there are several reasons why debt has not been a stranglehold. For one, the federal government's net interest payments have dropped from 2 percent of GDP in 2000 to 1.33 percent most recently despite the rise in debt, with interest rates falling from 6.5 percent to 2.25 percent and the Federal Reserve holding a substantial volume of Treasurys as a result of its unconventional monetary policies. Second, the surge in federal debt reflects cyclical pressures—spending by the automatic stabilizers and stimulus initiatives amid two recessions since 2000. Cyclical deficits and the trail of debt they leave are barely noticeable in financial markets because the government's enlarged financing needs are offset by reduced private credit needs. Domestic nonfederal debt, which is three times the volume of outstanding federal debt, has increased at half the growth of federal debt in the past seventeen years. Third, uneven living standards around the world at a time of expanding international trade raises the level of global saving, temporarily lifting global sources versus uses of saving.

The impact of debt is most visible in interest rate markets. Interest rates reflect the balance of the demand for and supply of credit. Low interest rates amid soaring public sector debt growth indicate, at least looking in the rear view mirror, that there is little danger of a debt stranglehold. Of course, central bank asset purchases have helped to hold down interest rates and this will reverse some as central banks slowly reverse course.

In fact, there is reason to worry about debt in the future. The widely projected rise in public sector debt will be more structural in nature than cyclical. For example, the Congressional Budget Office projects that the structural federal budget deficit will grow from the current 3 percent level of GDP to 10 percent in coming decades, if the economy's growth potential remains slow (around 2 percent), even if there is no recession. That implies the federal government will be a growing source of competition for credit, adding to future interest rate pressures.

In the end, the economic consequences of debt depend on the reasons for an increase in debt. For example, federal debt that arises from cyclical pressures (recessions) could be viewed as an investment in economic and social stability. Countercyclical policies that promote full employment and a robust economy minimize the opportunity cost arising from underutilized resources. The international financial position of countries offers another example. The United States owes the rest of the world $8.1 trillion more than others owe the United States. And yet America earns more investment income ($930.1 billion) on its claims on others than the $910.7 billion it pays to foreigners. In other words, the national indebtedness of the United States, rather than a straightjacket, could be seen as an investment in global economic development that benefits America as well as others. Finally, turning to the debate of the day, the concerns about how to pay for an ambitious infrastructure plan fail to consider the return on such investment (the billions

of dollars of savings associated with reduced commuting congestion and reduction in the 40,000 highway casualties that occur every year). There is little doubt that the nation would benefit enormously from such an initiative, even if it were financed by debt.

The world has been fitted with two debt straightjackets.

STEVE KEEN
Professor, Kingston University, and author, **Can We Avoid Another Financial Crisis?** ***(Polity, 2017)***

The world has been fitted with not just one but two debt straightjackets: one made of public debt and the other of private debt. The situation in the United States is typical. The total U.S. debt level at the end of World War II was equivalent to 130 percent of GDP, with public debt being three-quarters of the total and private debt one-quarter. Today, it is 250 percent of GDP, with public debt being two-fifths of the total and private debt three-fifths.

But there is a simple trick that could let the United States, like Harry Houdini, magically escape from one of these two straightjackets in a flash.

Like any magic act, it's ruined by the telling: despite all the political hand-wringing over the burden the public debt imposes on future generations, public debt could be eliminated by the stroke of a proverbial pen, for two simple reasons. First, this debt is exclusively in U.S. dollars; second, the government is the only institution in the nation that "owns its own bank," the Federal Reserve, which can create U.S. dollars at will. The Fed could buy up—and effectively cancel—this debt overnight. You might not like this trick, but it's both possible and perfectly legal.

That leaves the second straightjacket: private debt. Here Houdini's escape is not possible, because if any individual tried to do what the U.S. government can do, that person would be gaoled for counterfeiting. All U.S. private debt is, like public debt, owed in U.S. dollars; but only the U.S. government has the privilege of owning its own bank. For the private sector, it's effectively the banks that own the debtors.

But paradoxically, most economists obsess about the public debt trap and ignore the private debt one. Why? Because they believe that banks do not originate loans, but instead act as "intermediaries" between savers and borrowers. Therefore, they say, private debt doesn't matter, because if the debtor can't spend, the lender can, and vice versa. They therefore believe that the level of private debt, and its rate of growth or decline, are economically irrelevant. They can't see a private straightjacket.

Several central banks have recently loudly declared that this model is nonsense—including Germany's ultraconservative Bundesbank. Banks are not "intermediaries of debt" but originators. They don't lend pre-existing money, but create money when they make an entry in the borrower's deposit account, which is matched precisely by an entry in the borrower's debt account.

Since debtors borrow to spend, rising private debt boosts demand while falling debt reduces it. Demand in the United States was therefore boosted substantially as private debt rose almost fivefold from 1945 until 2008. Now demand from credit is stagnant and as likely to subtract from demand as add to it.

So private debt is the real straightjacket constraining the economy. But with mainstream economists ignoring it and fretting about government debt, the U.S. economy is likely to remain in its debt straightjacket indefinitely. As the public has started to realize since the 2008 crisis took them by surprise, mainstream economists are inept magicians.

The status quo path is both unacceptable and unsustainable.

DAVID M. WALKER
Former U.S. Comptroller General

The United States was founded on a set of principles and values that were intended to be timeless. These principles include limited but effective government, individual liberty and opportunity, personal responsibility/accountability, and fiscal responsibility/stewardship. Unfortunately, both America and Americans have strayed from these values to varying degrees.

Between the founding of the American republic in 1789 and World War II, the United States never had public debt in excess of 40 percent of GDP. By the end of World War II, public debt was about 104 percent of GDP, but strong economic growth and a return to fiscal prudence caused the ratio to fall below 40 percent by 1980.

Between George Washington's first term and the end of Bill Clinton's second term in 2001, the United States accumulated $5.7 trillion in total debt. However, under the past two Presidents alone, total federal debt rose from $5.7 trillion to almost $20 trillion!

Public debt is currently about 78 percent of GDP and total debt is about 106 percent of GDP. Both debt levels are still rising faster than the growth rate of the economy. In addition, when you consider traditional liabilities, including unfunded pension and retiree health care benefits, and unfunded Social Security and Medicare benefits over a 75-year horizon, total liabilities and unfunded obligations are about four times the total debt levels.

Interest rates are near historical lows. As a result, despite the significant increase in total debt, net federal interest expense is only about 6 percent of the federal budget. However, the non-partisan Congressional Budget Office projects that the fastest-growing expense for the federal government over the next ten to twenty years will be interest. And what do you get for interest? Nothing!

The Congressional Budget Office also projects that public debt will escalate from the current 78 percent of GDP level to over 150 percent of GDP by 2047 absent a change in course. While pro-growth tax reform, reasonable regulatory relief, and intelligent infrastructure investment will help to grow GDP, tough choices on spending programs, including spending on social insurance programs, will be necessary to restore fiscal sanity and sustainability.

When the federal government does finally make tough spending, tax, and other choices to restore fiscal sanity, the resulting impact will be felt by a variety of parties, including state and local governments. For example, the typical state relies on the federal government for about one-third of its revenue. In addition, many state and local governments face large and growing unfunded pension and retiree health care obligations. As a result, state and local governments need to take steps to put their own finances in order sooner rather than later. Importantly, while municipalities can file for bankruptcy, states cannot under current federal law.

All too many Americans are following the bad example of the federal government. As a result, total household debt levels have risen significantly in recent years to levels that are approaching total debt levels right before the financial crisis in 2008. Student loan debt continues to rise to new record levels. At the same time, household debt as a percentage of GDP is almost 20 percent below the peak in 2008.

Reasonable people can and do differ on what levels of debt are sustainable and when and if a debt crisis might occur. One thing is clear: the status quo path is both unacceptable and unsustainable. I and others will continue to do what we can to restore fiscal sanity in the United States sooner versus later.

The developed world faces a Catch-22.

SHERLE R. SCHWENNINGER
Director, World Economic Roundtable

The United States and other advanced economies would seem to be caught in a Catch-22. Economic growth is critical to reducing high debt levels (and to calming populist passions). But growth will put upward pressure on interest rates, increasing the debt servicing burdens of households, companies, and governments, thereby stifling growth.

Add to this dilemma the fact all the major economies—China, Japan, eurozone, and the United States—are similarly constrained by high debt, and all are seeking to grow by increasing net exports. But all the major economies can't export their way to growth at the same time.

What is the way out of this seeming debt dilemma? The answer to this question has two parts. The first part is to recognize that interest rates are low not just because of central bank monetary policy, but because the world economy has an oversupply of labor, capital, and in many cases productive capacity, which along with weak demand limits any inflationary pressures in the short to medium term and thus any significant increases in interest rates. The seeming straightjacket in most cases is in the minds of some policymakers only.

Once one recognizes that the straightjacket is more perceived than real, the second part of the answer to the way out becomes possible. Paradoxically, the second part of the answer is more debt—but more debt in the service of deleveraging and restructuring and less debt to maintain the status quo. In the United States, this means less debt for more tax cuts for the wealthy, or for more corporate buy-backs, or for more over-priced college tuition, but

more debt for infrastructure investment and worker training that will boost American productivity and raise workers' wages, thereby allowing households to reduce their dependence on debt without cutting consumption.

In Europe, it would mean less debt to pay for the costs of austerity in the debt-burdened euro-Med economies or to take care of economic refugees from the Middle East and Africa. Instead, it would entail more debt for debt relief and job programs in southern Europe and more debt to finance government spending in Germany on infrastructure, which would create more domestic demand and thus a more balanced eurozone. It would mean exporting less capital to the world financial markets for measly returns and more debt for a program of economic reconstruction along the EU rim, from Ukraine in the north to Lebanon and Syria in the Levant, to Egypt, Tunisia, and Libya in North Africa. The goal would be more markets for European companies and fewer economic refugees.

In the case of China, it would mean less debt to build more ghost cities or to maintain state-owned enterprises and their massive overcapacity in steel, cement, and other basic industries. Rather it would be more debt to restructure the banks, reduce state-owned enterprise overcapacity, and increase government spending for education and health care thereby supporting the transition to a more consumer-oriented economy. In short, less debt for loss-making enterprises and more debt for the consumer economy. In China, as in the United States and Europe, the problem is not debt *per se* but the uses to which it is put.

A straightjacket of debt for global growth is a long way off.

ALLEN SINAI
Chief Global Economist and President, Decision Economics, Inc.

Debt, and rising debt, at all levels, public and private, is a two-edged sword—at times a help and, at times, a hindrance!

In the early stages of expansion, rising debt in a well-functioning financial system with strong financial intermediaries is essential to increased economic activity. In such a situation, rising levels of debt are a help, not a hindrance; indeed, they are a necessary ingredient to improved activity.

But rising debt also can be a hindrance, with current and future payments of interest and repayment of principal restraining spending and economic activity. In extreme situations, such as 2006–2009 in the United States and rest of the world, rising debt contributed to downturns and subsequent weak economic activity.

Currently, for the short- to intermediate-term, defined as one to three years, rising debt should be viewed as a help, not a hindrance!

The main reasons are: 1) increased growth in the United States and worldwide with rising debt in support as a result of monetary and fiscal policy stimuli; 2) the improved financial condition of private sectors in most economies; 3) low inflation and low interest rates; and 4) rising asset values that collateralize debt accumulation.

Led by U.S. and coming Trumponomics fiscal stimulus, increased growth in nominal GDP relative to debt can be expected, as well as the stabilization or decline of debt ratios in most countries.

The U.S. economy is stepping up its growth pace. Japan's economy has begun to pick up. The eurozone is performing surprisingly well in the wake of Brexit. Even China is doing okay, no worse but probably somewhat better on a nominal GDP basis. And the developing countries are picking up in growth as the rest of the world does and prices firm in the aftermath.

Central government deficits and sovereign debt accumulation, where set to rise as in the United States, for example, will be well-covered from increased growth as improving GDP generates more liquidity in the form of tax receipts for the public sector and on the balance sheets of households, companies, and financial institutions.

The legacy from high debt levels where they currently exist is such that if, and when, price inflation picks up and interest rates rise high enough, debt loads will be a hindrance. This will particularly be the case in countries around the world that carry high debt levels, public and private, especially if interest rates should move up sharply. The distribution of the impacts from the debt loads and repayment burdens will vary across countries and global regions as to potential severity, but a hindrance they will be.

However, a straightjacket of debt for global growth is a long way off. How much later? That is hard to say, just a lot later. And, even then, not so much as in 2006–2009 when the world economy collapsed, but certainly enough so that the straightjacket of debt and its squeeze will dampen the global economy.

In the business cycle, accumulating debt eventually squeezes, but there are no magic numbers, nor amounts, nor ratios as triggers. At the moment, and for the near and

intermediate term, except in isolated situations, business decisionmakers and investors need not fear.

Excessive debt risks prolonged economic misery, most often followed by crisis.

JEFFREY R. SHAFER
Former Undersecretary for International Affairs, U.S. Treasury

The world indeed has more debt than ever and it is growing rapidly. In addition to the record public-sector debt burdens of the United States and Japan, public-sector debt in Europe is massive, private non-financial sector debt in the United States has grown by one-quarter over twenty years, and total debt in China has reached 250 percent of GDP. One debt burden has been reduced: low- and middle-income-country external debt has fallen by a third relative to GNI since 1999 following two decades of crises.

Excessive debt is a drag on economic performance and too often gives rise to financial crises. Tax burdens to meet debt service erode economic efficiency. They can be driven to the point that investment dries up and labor flees. Detroit, Puerto Rico, and Greece are contemporary examples. Explicit or implicit government guarantees can allow private debt to become excessive, too. Fannie and Freddie in the United States before 2008, the wealth management products building up in China, and banking systems in many countries are examples.

We have seen debt crises all too often in countries at all levels of development, when debt was incurred by the public sector and by the private sector, and with debt held domestically and externally. However, the risks and costs of excessive debt are different depending on who has issued it and who holds it. Japan, for example, has been able to sustain a public-sector debt that is unthinkable for most countries because it has been absorbed by domestic savers. But domestic holding is not a guarantee that there will be no crisis. Domestically held private debt collapsed in Japan in 1990.

It is easier to wring one's hands about debt than to provide solutions. One cannot just preach austerity, which made the problems in Europe worse over this decade. But failure to bring down high debt in good times sets the stage for the next debt problem. It makes no sense now to be contemplating tax cuts in the United States with high federal debt and an economy at full potential. This does not mean, however, that debt reduction should be pressed without limit when a country has room for maneuver. Low-debt countries, like Germany and South Korea today, only intensify the problems of others when they run budget surpluses while maintaining aggregate demand through huge current account surpluses.

It is also essential to remove the explicit and implicit credit guarantees that feed debt growth and to introduce compensating constraints when this is not possible, for example, extra capital requirements on too-big-to-fail banks.

Most important is to institutionalize orderly workout of excessive debt of all kinds. We extinguish personal debt in bankruptcy instead of putting people in debtors' prison, although it is frightening that mushrooming student loan debt in the United States survives bankruptcy. We no longer liquidate corporations with excessive debt that are economically viable. Workout arrangements are essential for a credit culture. In the public sector, however, policymakers and banks cannot seem to avoid kicking the can down the road with rosy scenarios and evergreen lending rather than facing up to the need to allocate losses when debt becomes overwhelming, even if alternatives are available. The result is prolonged economic misery, most often followed by crisis.

We will see slowly declining rates of real growth.

W. BOWMAN CUTTER
Senior Fellow and Director, Economic Policy Initiative, Roosevelt Institute

I do not know the numbers well enough to focus very much on the debt trap beyond the United States. For the United States, my own sense is that our debt load is about to be a major constraint on growth because of our public debt, not so much private corporate debt.

Depending on how you count it, U.S. public debt is today 77 percent of GDP—the highest since 1950—and

will grow to 90 percent of GDP—the highest in America's peacetime history—in ten years. Over the next thirty years, this—on current trends—will double to close to 200 percent of GDP. It will be a lot higher than that if we carry out tax reform without paying for it, which is the current plan.

Why will this affect growth? A very broad swath of American political opinion sees these numbers and asks, "So what?" So here are four "so whats":

First, we are entering a period when our public investments will be zero or less. (Depreciation will be greater than investment). In terms of our budget, we are now a heavily indebted health care system with a big military.

Second, as even the minimal levels of economic growth we are now experiencing go on, our substantial deficits and the ensuing debt will begin to crowd out private sector investment.

Third, as the costs of our public debt rise—the interest costs—with no intent, plan, or will to do anything, our debt will be perceived as higher-risk, raising interest costs for the whole economy.

Fourth, in a crisis, we will have less and less fiscal room to bail ourselves out.

I do not see the slightest real concern about all of this anywhere in our politics. And for what it's worth, I don't think these trends take us to a crisis. Their effect is more that of the frog in the pot of slowly heated water. We will see slowly declining rates of real growth—if roughly 1.5 percent to 2 percent economic growth is now close to our speed limit; down from 2.5 percent to 3 percent twenty years ago. I suspect we'll be looking at 1 percent to 1.5 percent as the ceiling in another twenty years. And that sets conditions for an even higher and uglier level of public anger with the way things are, or will be then, than we've seen in recent years. ◆

THE INTERNATIONAL ECONOMY
THE MAGAZINE OF INTERNATIONAL ECONOMIC POLICY
220 I Street, N.E., Suite 200
Washington, D.C. 20002
Phone: 202-861-0791 • Fax: 202-861-0790
www.international-economy.com
editor@international-economy.com