

June 2010

Model Portfolio Commentary

All equity asset classes were down sharply for the month. Large-cap U.S. stocks (as represented by the Vanguard 500 Index) fell 8% in May, with the iShares Russell Midcap and the small-cap Russell 2000 benchmarks down 7.4% and 7.6%, respectively. Year to date, the broad U.S. stock market is now in negative territory (-1.6%), though the mid- and small-cap benchmarks remain solidly positive (4.4% and 6.3%, respectively). High-yield bonds (which have equity-like characteristics) were down 3.4% for May, but after their strong performance in the first four months of the year, remain up 3.4% year to date. High-quality fixed-income generally had a better month, with the Vanguard Total Bond Market Index up 0.9% in May, and 3.7% so far this year.

Looking overseas, Vanguard Total International Stock Fund lost a steep 10.8%—partly as a result of the dollar strengthening against the euro—and is down 11% year to date, and emerging-markets equities (as measured by Vanguard Emerging Markets Stock Index Fund) were down 9.3% in May and 6.8% so far this year. Foreign bonds also suffered, with the Citigroup World Government Bond Index falling 1.1% in May and 2.7% year to date, and the JPMorgan GBI-EM Global Diversified Index down 4.3% for the month. The latter is still up 2.4% year to date.

Growing Federal Debt Will Pose Major Challenges in the Years Ahead

It's a toss-up as to which of the following can claim the title of Most Depressing Reading Material of All Time: 1984, George Orwell's depiction of a totalitarian, bureaucratic society ruled by the Thought Police and Big Brother, or the U.S. Congressional Budget Office's June 2009 report "The Long-Term Budget Outlook." The former at least was a book of fiction. The latter is based on the reality of rapidly growing U.S. federal debt. The scary conclusion left to readers is that the economic consequences of that debt may be much worse than the report even suggests.

Indeed, even without reading the Congressional Budget Office (CBO) analysis, politicians and the press have made it easy to arrive at that conclusion. The financial crisis and recession triggered a severe decline in tax revenues and an increase in spending, including Washington's economic stimulus that caused the federal budget deficit to soar from 1.2% of GDP in 2007 to almost 10% in 2009—its highest level since 1945. (For more on the terminology of government borrowing and its importance, see the "The Relationship Between Debt and Deficit" sidebar at the end of this commentary.) Recent

May Benchmark Returns (Preliminary)		
Large-Cap Benchmarks	May	YTD
Vanguard 500 Index	-8.0%	-1.6%
Russell 1000 (iShares)	-7.9%	-0.9%
Russell 1000 Growth (iShares)	-7.6%	-2.3%
Russell 1000 Value (iShares)	-8.2%	0.4%
Mid-Cap Benchmarks		
Russell Midcap (iShares)	-7.4%	4.4%
Russell Midcap Growth (iShares)	-6.9%	3.2%
Russell Midcap Value (iShares)	-7.8%	5.5%
Small-Cap Benchmarks		
Russell 2000 (iShares)	-7.6%	6.3%
Russell 2000 Growth (iShares)	-6.6%	4.7%
Russell 2000 Value (iShares)	-8.4%	7.7%
Other Benchmarks		
Vanguard Total Int'l Stock Index	-10.8%	-11.0%
Vanguard Emerging Mkt Stock Index	-9.3%	-6.8%
Vanguard REIT Index	-5.4%	11.4%
Vanguard Total Bond Mkt Index	0.9%	3.7%
Merrill U.S. High Yield Cash Pay	-3.4%	3.4%
Barclays 7 Yr Muni Bond Index	1.0%	3.3%
Citigroup World Govt. Bond Index	-1.1%	-2.7%
JPMorgan GBI-EM Global Div. Index	-4.3%	2.4%
DJ-UBSCI (Commodity Futures)	-6.9%	-9.9%

debates over the funding of public policy initiatives and entitlement programs have led many to conclude that growing federal debt levels are unsustainable in the long term. The Greek debt crisis and bailout have also given many market watchers a heightened sense of foreboding as they wait for the next shoe (or country) to drop.

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Even outcomes less severe than these could have serious consequences for our clients' investment portfolios. Recognizing this, we continue to devote research time to some very basic questions: What are the types of problems that can be caused by a large and growing federal debt burden? What is the potential magnitude of U.S. government borrowing? Is there a rational way to predict when the size of the U.S. debt burden might begin to impact financial markets via higher interest rates and lower P/E multiples? There is a wealth of information available and it's a fairly simple exercise to cull through reports, add up numbers, and do some very basic scenario analysis. Recognizing that a number of experts we respect spend much more time than we do considering topics like these, we have also asked them for their insights. Our objective is not to forecast or prescribe political remedies, nor have we invented strategies immunizing portfolios against all negative outcomes. We are in the process, however, of trying to understand what negative outcomes are possible, and in this research update we share some of what we have learned to date.

The Problems Caused by a Growing Government Debt Burden

The past two years have made the economic consequences of too much leverage painfully clear to individuals and businesses. Some of the same basic math applies to the federal government. By themselves, high debt-to-income levels don't necessarily strain resources. (Many people carry mortgage loads in excess of their annual incomes.) But when the level of interest rates is above the level of income growth, a problem starts to develop. If a business takes in \$1,000 its first year in operation but spends \$1,100, it incurs a deficit of \$100 and its debt-to-income ratio at the end of the year is 10%. If the company's income grows by 5% the following year and it does not incur another deficit—but it also doesn't pay off the debt incurred the previous year—the debt-to-income ratio remains at 10% as long as the interest rate paid on the debt is also 5%. But the debt-to-income ratio rises if the interest rate charged is above 5%. In this scenario, the only way the company can stabilize the debt-to-income ratio is to pay off some principal.

When the interest rate on debt is higher than the rate of income growth, a problem starts to develop—which is that debt servicing eats up a progressively higher percentage of income—unless debt is paid down.

There are a number of ways in which the above scenario can play out differently—and still badly—for consumers and business owners. Income can fall rather than rise, or new debt can be piled on top of existing debt—or both. In any case, a rising debt-to-income ratio in the private sector translates into increased risk of default. What about the public sector where the federal government has the power to print money, raise taxes, and set (short-term) interest rates? Can the United States effectively use those tools to stabilize

its rapidly rising debt-to-income ratio, or is there a material risk that eventually the United States will delay or miss interest payments on U.S. Treasuries?

Before the financial crisis, strong GDP growth and falling interest rates muted those types of fears. Indeed the United States went from running an annual deficit-to-GDP ratio of almost 4.7% in 1992 to a surplus-to-GDP level of 2.4% in 2000. Over that eight-year time period, the country's outstanding debt fell from 48% to 35% of GDP. But in the near-term, at least, the ability of the United States to regain its average annual post-WWII nominal GDP growth rate of over 6.5% is questionable. And over the longer-term, interest rates will undoubtedly head upwards again—propelled either by inflation and/or higher real rates (i.e., a higher risk premium) demanded by Treasury buyers. In an environment of muted economic growth and rising interest rates, an increase in the U.S. debt-to-GDP ratio seems unavoidable.

Potential Future U.S. Budget Deficit Scenarios						
Year	Deficit (\$ billions)	Deficit (as % of GDP)	Annual Net Interest Payments (\$ billions)	Net Interest as % of Revenues	Debt Held by the Public (\$ billions)	Debt Held by the Public as % of GDP
2007 (actual)	\$161	1.2%	\$237	9%	\$5,035	36%
2020 Baseline	\$687	3.0%	\$723	16%	\$15,027	67%
2020 Alternative Scenario	\$1,862	8.3%	\$1,026	22%	\$22,000	98%

Source: CBO baseline and alternative scenario projections as interpreted by Litman/Gregory

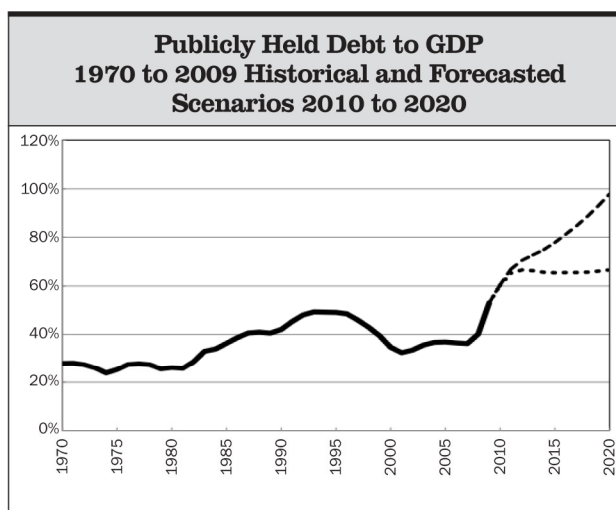
If economic output is muted by a strained U.S. consumer in the near-term, it may also be reduced over the long-term by the “crowding out” effect caused by increased government borrowing and higher interest rates. All else equal, higher interest rates reduce the potential return on capital investments such as equipment and factories. If the private sector cuts back on these, the result is reduced productivity and output over the long-term. In a scenario incorporating widely expected policy changes through 2035, CBO calculates that U.S.-financed real economic output would be 9% lower than it would be if the debt-to-GDP ratio were stabilized at its current level. And a recent draft paper studying two centuries’ of public finance history by the University of Maryland’s Carmen Reinhart and Harvard’s Kenneth Rogoff found that median real GDP growth rates fall by one percentage point when gross debt-to-GDP ratios cross above the 90% threshold. (“Gross debt” includes government debt held in Social Security and other government trust funds. “Debt held by the public” excludes them.) The United States will surpass the 90% gross debt/GDP ratio this year using CBO estimates. To put these numbers in context, the United States experienced median real GDP growth of 3.4% annually in the 27 years between 1980 and 2007, and in that time frame, U.S. debt/GDP levels varied from a low of 26% to a high of 49%. Using data as far back as 1790, Reinhart and Rogoff calculated median real GDP growth of 1.9% in advanced economies when the level of federal debt relative to GDP was 90% or higher.

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Over the very long-term, this crowding out effect could effectively render the country incapable of economic growth—which is essentially why all agree the current path of government borrowing is unsustainable. In a background paper on the CBO’s long-term economic model, the agency notes that it must use a number of “extreme rules” to make projected productivity and real wage growth match historical levels so that government borrowing is offset mostly by private saving. (It does this for the practical purpose of giving lawmakers a stable economic picture to compare policy proposals.) It acknowledges, however, that “if those rules are not in place, and if federal deficits followed their projected path, the model would show large government deficits crowding out private investment, which would decrease the amount of productive capital per worker and slow the growth of output; *at some point, the model would stop functioning.*” (Emphasis added.)

Slower economic growth would mean lower potential tax revenues and, in essence, the same problem that leads individuals into a fiscal crisis (the inability to grow income at a level above the rate paid on debt) could lead the United States down the same path. The possibility of a vicious cycle is apparent: investors demand higher yields for the perceived increased risk of default and that raises debt service costs. Increasing debt service costs leave less productive capital available for the economy, so growth is weak. The debt/income level rises due to both an increasing numerator and a slower growing denominator.

Does that inevitably lead to default? A more likely outcome is that lenders to the United States will demand higher interest rates as indebtedness increases and that will force the government to display fiscal discipline. “If you haven’t got a solution, [as a creditor] I’m going to get nervous with you a lot earlier than if you have a solution,” notes FPA New Income manager Tom Atteberry.



The CBO baseline scenario is based on current law and is likely optimistic. An alternative scenario, based on CBO projections and interpreted by LitmanGregory, represents “policy changes that are widely expected to occur and that policy makers have regularly made in the past.” Source: CBO projections as interpreted by Litman/Gregory.

FPA New Income manager Tom Atteberry believes markets will simply demand higher yields on Treasuries until the United States displays the discipline needed to tackle the problem.

Higher interest rates are bad for bond investors and the outlook for U.S. equities weakens if corporate profit growth slides along with U.S. economic growth. (Higher rates are also generally bad for P/E multiples because debt instruments compete with stocks for investors.) But burgeoning public debt doesn’t just cause problems for investors; it causes problems for all citizens. Increased debt service eats more heavily into government receipts, leaving less money on the table for the mandatory spending that

funds our entitlement programs and the discretionary spending that funds our national defense, education, and justice system. If taxes are raised to help cover those expenses, consumers' pocketbooks take an additional hit. The scenarios become increasingly dire in their impact the longer the growth of debt is allowed to continue on its current path.

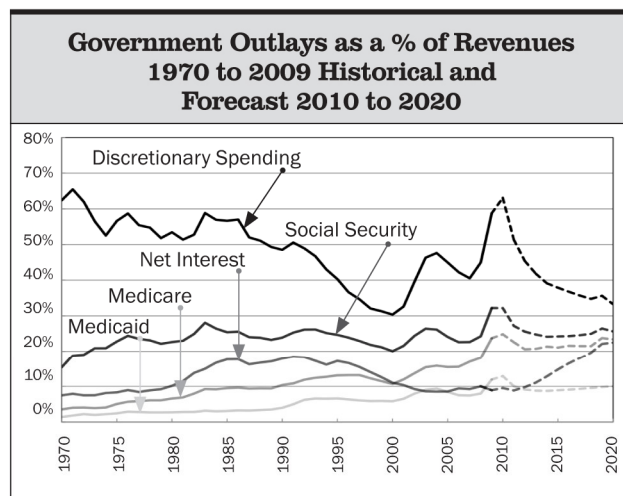
In fact, in a recent review of advanced and emerging economies' public finances, the International Monetary Fund (IMF) notes that even stabilizing debt ratios at their post-crisis levels is not enough. "Living with high debt would reduce the capacity of fiscal policy to respond to future shocks," the report notes. While most of us hope never to relive the financial crisis of 2008, the only thing worse might be to relive it with policy options constrained.

While most of us hope never to relive the financial crisis of 2008, the only thing worse might be to relive it with policy options limited by very high existing debt levels.

Finally, we should note that there is another hazard associated with a large government debt burden and that is the possibility that policy makers print money to inflate away the real value of debt. (Because it reduces purchasing power, inflation would also cause the dollar to lose value.) Given the experience of high inflation that the United States went through in the 1970s and early 1980s, most believe this would be an unpopular policy alternative but it's worth mentioning because some advocate a slightly higher target inflation rate for this purpose. In the study mentioned above, however, the IMF also cited evidence that such a measure would largely be ineffective; a 6% inflation rate would erode less than 25% of the value of the increased debt burden through 2014. And of course if the market fears this is the government's game plan, they will force interest rates higher to compensate for this risk. This is why the Federal Reserve pays so much attention to measures of inflation expectations in addition to actual inflation rates.

The Potential Magnitude of U.S. Government Borrowing

CBO's baseline projection shows debt held by the public rising to 67% of GDP by 2020 (from 53% at the end of 2009) and net interest payments as a percentage of revenues crossing the critical 10% level in 2013. (A downgrade after crossing this threshold isn't automatic for a AAA sovereign but generally for credit rating agencies a 10% "debt affordability" ratio denotes the line in the sand between a AAA and AA rating.) CBO points out a number of reasons why the baseline scenario may be optimistic. Importantly, the baseline budget forecast is based on current law—not on historical growth rates of government revenues and spending. Among the key



While discretionary spending has declined as a percentage of revenues over the last 40 years, mandatory spending on entitlement programs has increased and is projected to account for almost 60% of revenues by 2020 under the CBO's alternative scenario. Net interest payments are also expected to soar above 20% of revenues under this scenario as government borrowing and interest rates rise. Source: CBO projections as interpreted by Litman/Gregory.

assumptions:

- Individual tax receipts increase as tax cuts enacted in three major pieces of legislation expire as scheduled.
- The Alternative Minimum Tax (AMT) is not indexed to inflation.
- Medicare payments to doctors are constrained by a rate-setting system.
- Extension of unemployment insurance to 53 weeks and weekly supplement of \$25 ends.
- No future additional funding for military operations in Afghanistan.
- Discretionary spending assumed to grow at the rate of inflation (2% annually or less through 2020).

Are these assumptions plausible? Certainly. But they are hardly probable considering that: tax hikes are politically unpopular, the AMT exemption has been repeatedly increased since 2001, scheduled Medicare reductions to physicians have been postponed every year since 2003, many people remain unemployed in the midst of a fragile recovery, the United States is still fighting a war in Afghanistan, and government discretionary spending actually grew at an average annual rate of 7.5% between 1999 and 2008.

What is more probable? CBO outlines some possible alternatives representing “policy changes that are widely expected to occur and that policy makers have regularly made in the past.” In this vision of the future:

- tax provisions in major tax legislation from 2001 and 2003 are extended;
- AMT parameters are indexed for inflation;
- physicians’ payments under Medicare are indexed to the growth in health care costs; and
- discretionary spending grows at the same rate as nominal GDP (about 4.5% annually) after 2011.

Compared to the baseline forecast, the cumulative deficit that builds up over the next 10 years more than doubles, debt service costs increase, and publicly held U.S. debt rises to 98% of GDP by 2020.

Based on seemingly reasonable policy assumptions, publicly held U.S. debt would rise to 98% of GDP by 2020. That number ranges from 67% to 108% in other scenarios that similarly include no major tax increases or entitlement spending cuts.

Estimates are available for other possible scenarios: the impact of health care reform, the President’s proposed 2011 budget, etc. It’s even possible to estimate the impact of changes to macroeconomic assumptions using some rules of thumb provided by the CBO. But most scenarios that do not incorporate drastic new tax increases or major cuts to entitlement programs project the cumulative deficit over the next 10 years in a range of \$6 trillion to \$16 trillion while debt held by the public at the end of that period ranges from \$15 trillion to \$25 trillion. That would equate to a 67% to 108% debt-to-GDP level using the CBO’s forecasts for GDP.

And the numbers get scarier. The estimates above vary the numerator in the critical deficit-to-GDP or debt-to-GDP ratios. If the GDP denominator in any of these scenarios is lower than projected (and given the crowding out problem described above, that is certainly a risk), the problem is compounded, the ratio looks worse, the perceived risk of default increases, and the tipping point where extreme measures are needed looks a lot nearer on the horizon. In its baseline budget, the CBO projects real GDP growth will accelerate to 4.9% in 2013 and then gradually slow to a 2.2% rate by 2020. But if real GDP growth is just half a percentage point lower than projected over the next 10 years, another \$1.4 trillion would be added to the cumulative deficit and the overall debt-to-GDP ratio would increase by five percentage points.

For each half point you shave off of GDP growth assumptions between now and 2020, \$1.4 trillion in debt is added and debt-to-GDP ratios climb by five percentage points.

When and How a U.S. Fiscal Crisis Might Impact Financial Markets

If leverage is thought of as a disease, both the symptoms (higher interest rates and slower economic growth) and the medicine (fiscal discipline) will cause pain. Financial markets, like people, can have extreme reactions in anticipation of pain. Can we predict when that anticipation will start to show up in U.S. asset prices?

Crises are by their very nature surprising, so it's impossible to predict with precision when the financial markets begin to recognize the painful measures needed and force lawmakers to address the burgeoning debt issue. In general, some type of reaction to the situation seems inevitable within the next 10 years as some ratios like debt-to-income and net interest payments as a percentage of government revenues approach the levels likely to draw rating agencies' attention. Those levels could be reached sooner if interest rates increase faster than predicted or economic growth is below what is forecast. For example, net interest payments as a percentage of revenues cross into double-digit territory in 2013 under the CBO's forecasts but an alternative vision of the future from Moody's shows that threshold being crossed next year.

Various empirical studies have also tried to quantify the impact that budget deficits and debt have on interest rates. Most recently, an IMF study cited evidence that bond yields rise approximately 20 basis points for every one percentage point increase in the deficit-to-GDP level. Other factors such as a high initial debt level, inflation, and an increased supply of global sovereign debt add incremental amounts to that 20 bps estimate. Using the IMF's estimates conservatively and keeping the pace of inflation constant, that might result in the yield on the 10-year Treasury reaching more than 7% over the next 10 years. That's within a reasonable range in view of most experts we have spoken with but most also agree that the eventual rise in interest rates will not proceed at a slow and smooth pace.

Loomis Sayles chief economist Brian Horrigan believes deficits can keep mounting for several years until foreign creditors like China get upset or rating agencies sound warnings. "The Greek example shows that you can be sailing pretty and then one day a hurricane just shows up," he says. "If you look at case studies, financial markets are continually surprised."

Is an advanced economy like the U.S. comparable to Greece? Atteberry says the tipping point will arrive when bond market participants' perception shifts and the United States as a debtor nation loses some of the trust and credibility it's enjoyed in the past. He notes that Russia, Brazil, Argentina, and Chile began having problems refinancing as debt-to-GDP ratios came close to 90%. (Under the CBO's alternative scenario, debt held by the public would reach that level around 2017—or earlier if GDP growth estimates prove too high.)

Horrigan points to the large proportion of short-term U.S. debt (T-bills are about 25% of all Treasuries). He believes rates could spike as the United States tries to refinance its short-term debt in the midst of panicked selling. "God did not guarantee that somebody would buy that stuff," he says. "There could be a rollover crisis. Then banks holding Treasury debt find that their capital is compromised if Treasury prices start falling. And long-term mortgage rates rise because banks link mortgage rates to 10-year Treasuries. The dollar starts falling. All of a sudden, you have a genuine financial crisis in this country."

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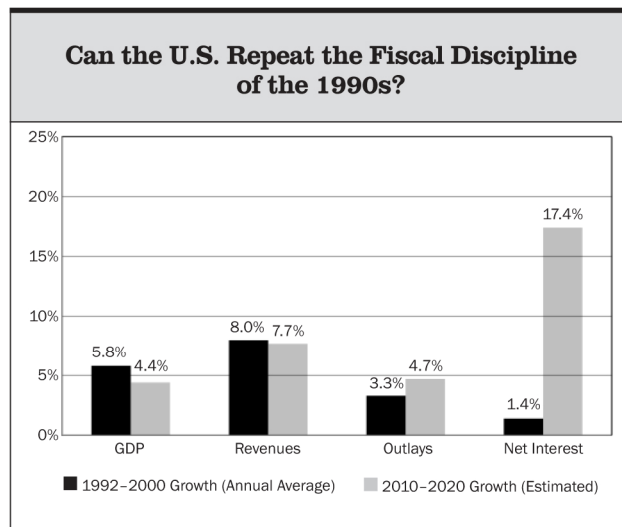
Given the extraordinary fiscal stimulus of 2008 and 2009 and the recent political sparring in Washington over the impact of health care reform on the budget, it's natural to wonder why long-term bond investors aren't already demanding higher interest rates. U.S. Treasuries benefited from a flight to quality and deflation fears during 2008 but while yields rose in 2009, the 10-year Treasury is still well below its long-term average of 6%. Horrigan believes bond investors are hoping for history to repeat itself. He points to a handful of times spanning the last three centuries when both the United States and the United Kingdom have reduced large debt-to-GDP ratios after borrowing heavily during major wars or severe recessions. Britain came out of the Napoleonic Wars with a debt/GDP ratio of approximately 300% and over the next 100 years that ratio fell close to zero. The United States had a debt-to-GDP ratio of more than 100% following World War II and that ratio fell to 24% by 1974.

Can the United States avoid the pain that emerging-market debtor nations faced when their leverage ratios began rattling the markets? Can it regain a solid fiscal footing and bring debt levels down as it did in the past? Certainly, raising revenues through tax increases and/or cutting spending are not new prescriptions. Why would they be harder to implement now than in the past? Because this time, even stronger discipline may be needed, the pain it causes may be greater than in the past and thus the political will to do what is needed may take longer or be more difficult to muster. In fact, the adjustment needed is so great that most agree it will take the financial markets to force discipline on the undisciplined and that is likely to happen sooner rather than later.

The adjustment needed to regain a solid fiscal footing is so great that most agree it will take the financial markets to force discipline on the undisciplined and that is likely to happen sooner rather than later.

There are three simple considerations leading to the conclusion, that this time, our problems are greater than in the past and postponing dealing with them is a dangerous option. First, the aging of the U.S. population means that the cost of entitlement programs is going to escalate rapidly in the near term. The first U.S. baby boomers turn 65 in January 2011, becoming eligible for Social Security and Medicare. Within 20 years, all 78 million baby boomers will be in their retirement years. Taking these demographics into account, both CBO scenarios predict that mandatory spending on entitlement programs will eat up about two-thirds of revenues in 2020. That forecast also relies on an assumed 7% annual increase in the cost of health care. Add just one percentage point to the per-capita cost for enrollees, and Medicare and Medicaid outlays increase by an additional \$700 billion over the next 10 years. (For some context, annual Medicare and Medicaid outlays are projected to grow from about \$750 billion in 2009 to \$1.5 trillion in 2020 under CBO's baseline scenario.)

Second, the long-term decline of U.S. interest rates from the mid-1980s through the 2008 financial crisis helped the United States in controlling debt service costs. With an eventual increase in rates unavoidable and more debt outstanding, net interest costs are also likely to eat up a growing share of revenues. (One can quibble about interest rate forecasts but CBO predicts that the 10-year Treasury will rise to 5.6% over the next 10 years and net interest costs will demand 15% to 20% of revenues by 2020.) Using these conservative estimates, mandatory spending and net interest costs will account for over 80 cents of every dollar in revenue within the next 10 years. With no additional borrowing, that would leave just 20 cents of every dollar in revenue to cover discretionary spending. (Discretionary spending has averaged 50% of revenues since 1970 and never dipped below 30%.)



Between 1992 and 2000, the United States transformed its 4.7% deficit/GDP ratio to a 2.4% surplus/GDP ratio. But policy makers were aided by higher GDP growth and lower growth in outlays and interest payments than is projected under the CBO's alternative scenario for 2010 to 2020. Source: CBO projections as interpreted by Litman/Gregory.

Third, tax hikes in a period of constrained economic growth will not likely provide a quick fix to the problem. If the government is left with little in discretionary dollars to cut, lawmakers can reduce borrowing by raising revenues via tax hikes. But transferring money from consumers to the government “just guarantees a slower growth path,” notes Atteberry. Absent the historical GDP growth the United States has produced in the past, a higher tax on slower-growing income may also not be the effective policy tool lawmakers hope for. Indeed, the CBO's more optimistic baseline scenario already has some tax increases factored into its projections but the pace of revenue growth in that scenario (though faster than the economy) is not fast enough to keep up with spending growth.

In the end, a spike in interest rates that forces U.S. lawmakers to address government borrowing may just be the first in a series of painful market events associated with deleveraging the public sector. Horrigan points to the Canadian fiscal crisis of the 1990s as indicative of a road the United States may have to take. With a large budget deficit, a high debt-to-GDP ratio, and a high proportion of foreign-owned debt, Canada lost the triple-A rating on its debt and real interest rates topped 9% in 1995. Canada was able to turn its twin deficits (current account and budget) into twin surpluses but not without painful measures including spending controls, a new tax on goods and services, and, importantly, a large currency devaluation. “They basically had to trash the Canadian dollar to make it a more competitive place and that helped its exports,” says Horrigan. “But it means everything you import is more expensive and it definitely impacts your standard of living.”

The Canadian fiscal crisis of the 1990s could be indicative of the road the United States must take. With a large budget deficit, a high debt-to-GDP ratio, and a high proportion of foreign-owned debt, Canada lost its triple-A rating and real interest rates topped 9%. Painful measures including spending controls, a new tax on goods and services, and, importantly, a large currency devaluation eventually led to budget surpluses.

One can hope for a U.S. economic miracle or a quick, painless fix to the U.S. debt problem. Unfortunately, we don't see one and we will not base our decisions for clients' portfolios on unrealistically hopeful scenarios. Assessing the federal government's fiscal situation is an ongoing task, but if there is one thing our research has shown us thus far, it is that the current path of government borrowing will have a negative impact on economic growth and financial assets over the next five to 10 years. Our research to date has given us a clearer idea of the magnitude of the problem, the negative outcomes that are possible, and even a time horizon (though it is a large window) of when those outcomes might be expected.

In our asset class scenario analysis, we have already incorporated many of the potential risks and headwinds stemming from the debt problem, such as the likely negative impact on growth from the belt-tightening that will be necessary to reduce the structural budget deficit (e.g., lower government spending and higher taxes). We also assume that 10-year Treasury yields will need to rise significantly over our five-year scenario horizon, which is consistent with the market demanding a higher credit risk premium to lend money to the U.S. government (due to our growing debt problem) and/or higher inflation expectations (due for example to fears that the Federal Reserve may monetize the debt).

We are in the process of revisiting our five-year scenarios and will be incorporating our most recent research on the debt issue as we revise our assumptions. But at this point we don't envision any major changes to our portfolios as a result of this exercise because we believe they are currently positioned to account for the major risks, primarily via our underweighting to equities, our positions in flexible/absolute-return-oriented fixed-income funds that should add value in a rising rate environment, and our fat pitch allocation to emerging-markets local-currency bonds. But we won't know for sure until we complete the process. For example, it is possible that we decide to put a higher weight on one of our more pessimistic scenarios playing out as a result of our assessment that the headwinds from the developed world's sovereign debt problems have increased. Of course, the markets are volatile and we are constantly reassessing relative returns and

risks across asset classes, so our portfolio positioning may change tactically even if our underlying longer-term scenario assumptions do not significantly change.