

**BEYOND  
THE  
KEYNESIAN  
ENDPOINT**

**CRUSHED BY CREDIT AND DECEIVED BY DEBT—  
HOW TO REVIVE THE GLOBAL ECONOMY**

**TONY CRESCENZI**

# Beyond the Keynesian Endpoint:

Crushed by Credit and Deceived by Debt—  
How to Revive the Global Economy

Tony Crescenzi

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*To my enchanting daughters, Brittany, Victoria, and Isabella.  
Each of you adds immeasurable joy and happiness to my life.  
I love each of you so much and dedicate my life to you.*

*To my brother and sisters and to my nurturing parents,  
Anita and Joseph, for their unconditional love and for the freedoms  
I was given in youth to explore, to dream, and to have fun—lots of it!*

*To Jeffrey Tabak and Jeffrey Miller for their friendship and for giving  
me the freedom to probe all boundaries of the financial markets,  
the economy, and the investment world.*

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for the opportunity of a lifetime to work for them and contribute to  
PIMCO, an organization I am honored to be a part of.*

*To friends we gain in the many stages of our lives,  
for the great comfort, joy, and enduring memories they give us.*

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Jackie Rubino, Neil Visoki, Tommy Scott, Jeanine Ognibene,  
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Ray and Debbie Candido, Dave Bochicchio, Phil Neugebauer,  
Mark Shorr, and Mark Porterfield.*

*To all who, in one way or another, are survivors, and who, despite the  
many obstacles and challenges they face in their daily lives,  
each day find the inner strength to endure and indeed to excel.*

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Mr. Crescenzi taught in the executive MBA program at Baruch College from 1999-2009. He has 28 years of investment experience and holds an MBA from St. John's University and an undergraduate degree from the City University of New York.

# 1

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## Beware the Keynesian Mirage

Those who refer to historical examples where fiscal stimulus worked and where despite increased indebtedness there was no corresponding increase in market interest rates do so with contempt toward the financial crisis and its profound message about overleveraged societies and the extended period by which the deleveraging process tends to last and leave destruction in its wake. Reinhart and Rogoff,<sup>1</sup> for example, suggest that the deleveraging process that follows a financial crisis tends to last about ten years. McKinsey & Company find similar results, as shown in the summary in Table 1-1:<sup>2</sup>

**TABLE 1-1 Duration and Extent of Deleveraging Following a Financial Crisis**

Archetype	Number of Episodes	Duration <sup>1</sup> (Year)s	Extent of Deleveraging (Debt/GDP Change)		Debt CAGR <sup>4</sup> (Trend vs. Episode <sup>3</sup> )
			%	pp	
“Belt-tightening”	16	6–7	-29	-40	21 vs. 2
	<i>Median</i>	5	-24	-34	21 vs. 3
“High inflation”	8	7	-53	-93	50 vs. 46
	<i>Median</i>	8	-62	-34	36 vs. 27
“Massive default”	7	6	-36	-46	41 vs. 10
	<i>Median</i>	8	-55	-72	28 vs. 9
“Growing out of debt”	1	6	-25	-44	0 vs. 12
<b>Total<sup>2</sup></b>	<b>32</b>	<b>6–7</b>	<b>-37</b>	<b>-54pp</b>	<b>32 vs. 14</b>

<sup>1</sup>Duration is defined as the period during which debt/GDP levels decrease.

<sup>2</sup>Two outliers have been removed from the averages: Turkey '87-'03, Poland '87-'95.

<sup>3</sup>Historic trend defined as the 10 years or longest time series available before the start of the deleveraging episode.

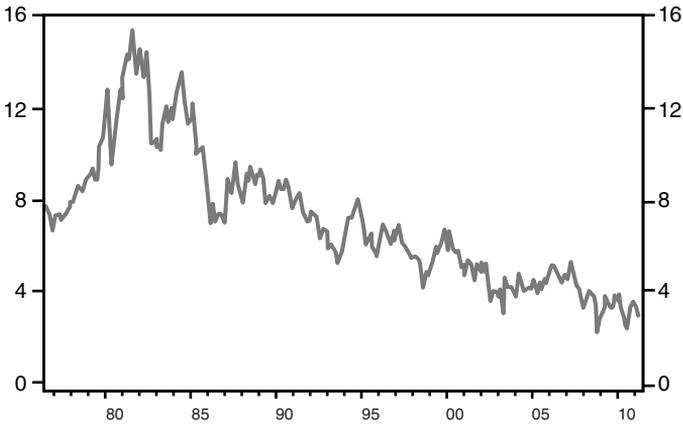
<sup>4</sup>Compound annual growth rate

Note: Averages remain similar when including episodes of deleveraging not induced by financial crisis.

Source: IMF, McKinsey Global Institute

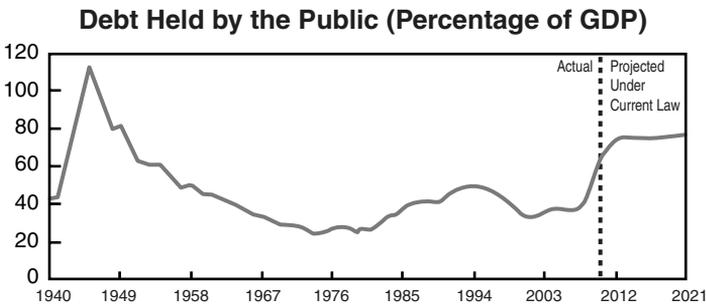
The source of this contempt almost certainly is rooted in the behavior of the interest rate markets amid the buildup of government debt over the past three decades and especially in the aftermath of the financial crisis, which has been marked by a plunge in market interest rates despite a massive increase in sovereign debt outstanding relative to the increase in economic activity in sovereign nations. In other words, although debt-to-GDP ratios for nations in the developed world have increased, there has been no corresponding increase in market interest rates. In fact, market interest rates have fallen for 30 years, as shown in Figure 1-1.

### 10-Year Treasury Note Yield at Constant Maturity % p.a.



**Figure 1-1** The “Duration Tailwind”

Consider Figure 1-2, which reflects the deterioration in the U.S. fiscal situation, as illustrated by a sharp increase in its debt-to-GDP ratios.



**Figure 1-2** Sovereign debts are becoming mountainous.

Source: Congressional Budget Office; [http://cbo.gov/ftpdocs/120xx/doc12039/01-26\\_FY2011Outlook.pdf](http://cbo.gov/ftpdocs/120xx/doc12039/01-26_FY2011Outlook.pdf)

When looking at Figure 1-2, it is important to keep in mind that in addition to the historical perspective, there is widespread expectation for further deterioration in the years to come, owing in no small part to expected increases in entitlement spending, such as health care

and retirement benefits, particularly in developed nations (see Figure 1-3). This is especially true in the United States where in 2011 the so-called Baby Boomers (those born in the years 1946 through 1964) began turning 65.<sup>3</sup> I discuss the very important implications of this and the powerful concept known as gerontocracy in Chapter 6, “Age Warfare: Gerontocracy.” Investors are familiar with the implications and as such their expectation for further deterioration in public sector balance sheets will be a major driver of cash flows for many years to come, which is to say that many investment decisions will be made on the belief that the developed world will be saddled by debt and be a relatively risky place to invest.

Figure 1-4 shows more closely the behavior of interest rates over the past decade in the United States, the United Kingdom, France, and Germany, as reflected by the ten-year yield for government securities in each of the respective countries.

Keynesians would say that the combined message from these charts is that they illustrate the very small extent to which bond investors worry about the buildup of sovereign debt and the deterioration of public sector balance sheets. After all, Keynesians will tell you, interest rates on sovereign debt decreased substantially during a period when public sector balance sheets deteriorated substantially. Keynesians also stress that this is how it has been for decades, with interest rates tending to fall during periods when public deficits increased.

Keynesians in fact believe that recessions are a good time to increase government borrowing. They seize upon the idea that during periods of economic weakness it is much easier for the public sector to issue debt and to do so at interest rates lower than those that prevailed prior to the weakness because during such times private demands for credit tend to be weak, resulting in a redirection of investment flows toward government debt. This has certainly been true historically: During periods of economic weakness, the creation of bank loans, the

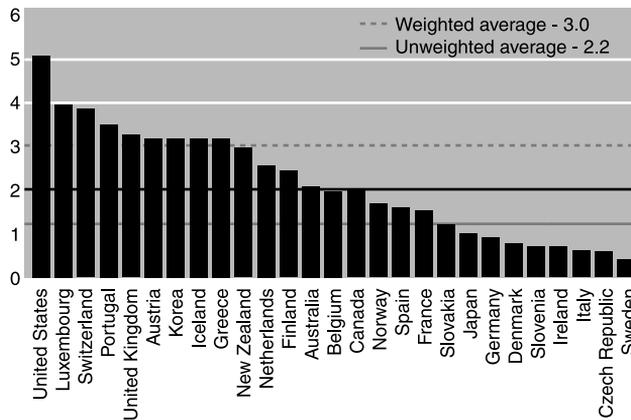
origination of mortgage credit, and issuance of company bonds slows or declines, and during such times money flows to government bonds because it's the only game in town—money must find a home.

### Under Pressure

Public health care spending is projected to rise by 3 percent of GDP in advanced economies, and by 1 percent of GDP in emerging economies, with regional variations.

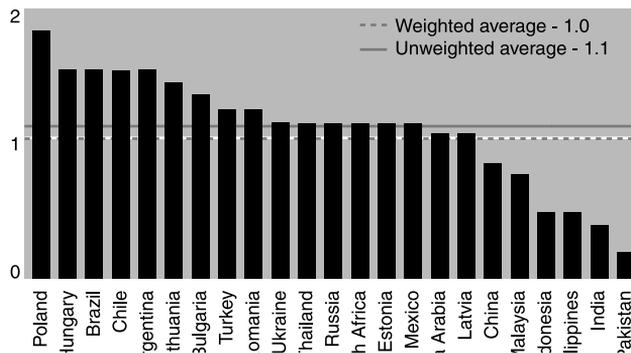
#### Advanced Economies

(change in public health spending, percent of GDP, 2011-30)



#### Emerging Economies

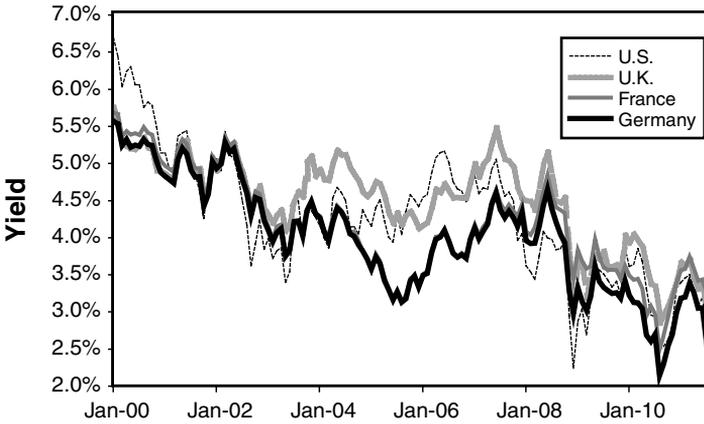
(change in public health spending, percent of GDP, 2011-30)



**Figure 1-3** Projected global health care spending—the U.S. tops them all.

Source: <http://www.imf.org/external/pubs/ft/fandd/2011/03/Clements.htm>

### 10-Yr Government Bond Rates for the U.S., U.K., France, and Germany



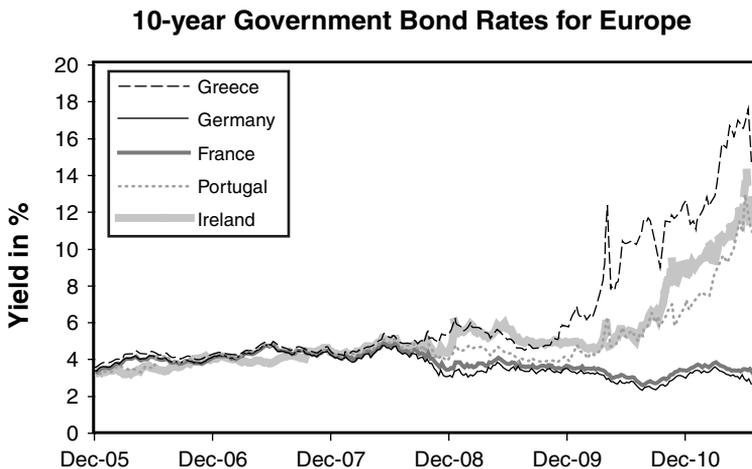
**Figure 1-4** Don't be fooled by these falling rates.

Another source of contempt relates to the way investors are using the credit histories of developed nations to rationalize assigning low levels of market interest rates to sovereign debt in the developed world. Investors believe that because these nations have favorable long-standing credit histories that they remain “risk free.” Take the United Kingdom, for example. It has not defaulted on its debts since the Stop of the Exchequer in 1672.<sup>4</sup> So why should anyone question adding on still-more debt to try to bring down unemployment? It is rational, in fact, to believe that nearly 350 years of pristine credit is a formidable defense for continuing Keynesian economics and to believe there is no such thing as a Keynesian Endpoint where nations reach their limits for gainful borrowing.

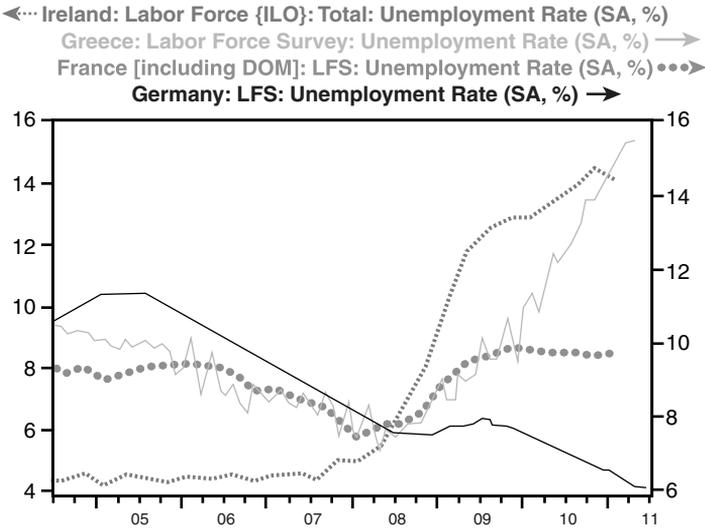
It is a fallacy to believe that the ability of nations to issue ever-increasing amounts of new debt at the Keynesian Endpoint will be the same as it was in the past, and it is lunacy to believe that in the immediate aftermath of the financial crisis that bond investors will turn a blind eye to a continuation of fiscal profligacy. Investors have evolved and now have distaste for fiscal irresponsibility, as has the public, especially after the disappointing results of the massive fiscal stimulus

deployed in 2009 by many countries in the developed, in particular in the United States, to counteract the financial crisis. Evidence of evolving views toward government indebtedness is illustrated by the behavior of bond markets toward nations at the lower end of the wrung in terms of their fiscal situations, particularly toward Europe's periphery, especially Portugal, Ireland, and Greece, and to a lesser extent Spain (commonly referred to by the acronym, PIGS), which has thus far been spared the worst outcome by successful attempts by Europe to ring-fence its problems to Portugal, Ireland, and Greece. Europe has done this by building many "bridges to nowhere" that have bought Spain as well as Italy time for Europe's banks to derisk their portfolios and rebuild their capital before any defaults occur.

Figure 1-5 shows the behavior of government bond yields for PIGS relative to German and French bond yields, which have been suppressed by capital flows both globally and from money previously invested in Europe's periphery that has in recent times been directed toward "core" Europe – Germany and France, whose debt problems are more manageable and where economic growth has been substantially better than for PIGS, as shown in Figure 1-6, which shows the unemployment rate for nations in Europe.



**Figure 1-5** Oh, what debt can do to rates!



**Figure 1-6** Oh, what debt can do to an economy!

Rather than consider the potential for contamination and contagion from Europe’s periphery to its core, Keynesians prefer the notion that past is prologue and believe that global bond investors will continue to be attracted to debt markets in nations with strong credit histories despite the significant deterioration in their underlying credit fundamentals. This is unwise thinking. The move toward joining the least worst in the league of heavily indebted nations and the clan that in the immediate aftermath of the financial crisis has seemingly stabilized is merely a pit stop—the move by investors away from the core is likely to be nonlinear, which is to say that it will most likely occur gradually, as a process, not an event, when investors begin to believe the periphery is rotting the core. And deterioration in core Europe has the potential to occur faster than investors expect because more than ever the deterioration in underlying credit fundamentals put developed nations at a tipping point and make them vulnerable to a breakdown in confidence.

Investors tend in general to underestimate the risks of a sudden stop, and they tend not to position themselves for tail events—the big,

unexpected events that make news only after they have happened, not while they are developing. These events tend to occur much more often than many expect when they consider normal distribution curves, as illustrated by Table 1-2. In other words, tail risks in the investment world have proven to be far larger than models would predict. Investors therefore need to think and position their portfolios in terms of tail risks and be leery of normal distribution curves. At the Keynesian Endpoint, this means investors should position for the possibility of sovereign defaults and their vast ripple effects in the global economic and financial system.

**TABLE 1-2 Big Things Happen More Often Than Most People Expect.**

<b>Daily Change in DJIA 1916 – 2003 (21,924 Trading Days)</b>			
<b>Daily Change (+/-)</b>	<b>Normal Distribution Approximation</b>	<b>Actual</b>	<b>Ratio of Actual to Normal</b>
> 3.4%	58 days	1001 days	17x
> 4.5%	6 days	366 days	61x
> 7%	1 in 300,000 years	48 days	Very large

Source: PIMCO, Benoit Mandelbrôt: *The (Mis)behavior of Markets, Basic Books, March 2006*

Investors in developed markets must also stay attentive to attempts by indebted nations to repress them for the sake of liquidating public debts. These nations will attempt to suppress market interest rates to levels that are close to or below the rate of inflation, hoping that their economies will grow at a rate that exceeds the interest rates they pay on their debts, a combination that enables nations to reduce their debt-to-GDP ratios. In these cases, investors will experience a loss of purchasing power on two fronts. First, they will be put behind the eight ball by lagging inflation and thereby losing domestic purchasing power. Second, low or negative real interest rates will reduce the

attractiveness of their home currency, which is apt to depreciate and thereby result in a loss of purchasing power internationally. Investors must recognize also that policymakers intend to carry out their repression in a way that makes them akin to frogs that stay in slowly boiling pots only to die. Investors instead should be like frogs that are placed in pots already boiling and jump out.

A paradox to some, the Keynesian Endpoint means that Austrian economics, which is predicated on the idea of a *laissez-faire* style of governmental involvement, will regain popularity and will therefore become more influential in shaping policymaking in the time ahead. Mind you, I do not mean to say that the Austrian style of economics that dominated the later part of the twentieth century will return—long live Reaganism and Thatcherism. Instead, Keynesians will be forced to let Austrian economists shape the heavy hand of government involvement and control that has dominated the post-crisis policy-making landscape. For example, taxpayers will demand that tax receipts be directed more efficiently than they have in the past, such that every unit of currency taken in is spent in ways that they believe are most likely to benefit society. One example is the doling out of benefits to public sector unions, which continue to receive health and pension benefits that far exceed those received by the private sector.

This means that government will attempt to stimulate economic activity not by increasing its spending, but by changing the composition of its spending. Policymakers will also seek changes in taxation and regulations that encourage businesses and households to spend and invest. The goal from here on will be to ignite multiplier effects that debt spending can no longer ignite. A major challenge in this regard will be the ability of developed nations to muster sufficient political support for changing their mix of government spending at a time when their populations are aging. These nations are predisposed to spending more on health care and retirement benefits, which will

make it difficult to direct money away from these areas toward areas that tend to promote strong, sustainable economic growth, including infrastructure, research and development, and education.

The integration of the Keynesian and Austrian schools of thinking will be necessary because Keynesians have no more balance sheets to spend from, and followers of the Austrian school of thinking are not yet in control of balance sheets (nor do they want to be in control). This transformation could take quite a bit of time, but not all that long because the populace will provide a mandate for change, the same as it did in the early 1980s and then again in the early 1990s when supply-side economics was tweaked. How will this happen? High levels of unemployment or general economic discontent always lead citizens to rise up, either in arms or with their votes. Economic stress has a way of crystallizing the sorts of policies that are both the least and most desirable for a given time. The result of the November 2010 U.S. election is an example of this. Voters picked candidates that seek reduced government activism, rebuking Keynesian economics. The November 2012 general election will be the next big opportunity for voters to express their views on Keynesian economics, the dominant policy tool at the onset of the financial crisis. Indications are that voters will reject the philosophy and oust incumbents that have supported it because in the U.S. as well as throughout the world, the fiscal authorities have failed to reduce unemployment to desirable levels in spite of massive fiscal stimulus efforts.

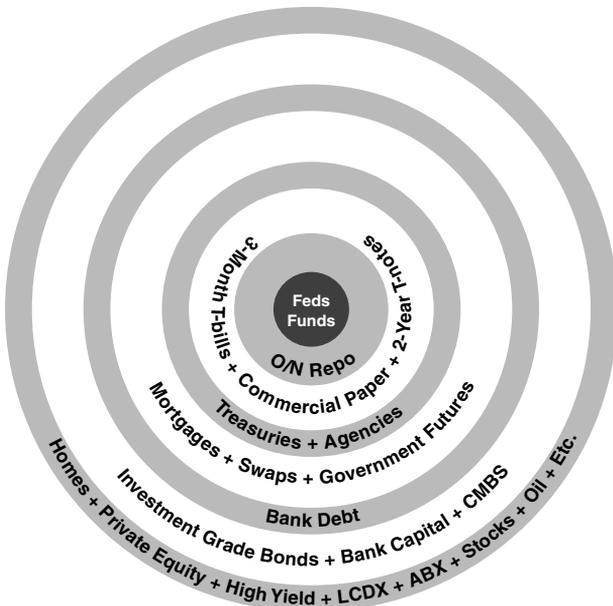
More than at any time since the 1980s, citizens throughout the voting world will vote to eject “leaders” who favor a continuation of fiscal policies that yield little in terms of economic growth and in fact create conditions that could actually erode economic activity because of both an inefficient use of public money and a decrease in confidence tied to concerns about the long-term risks and implications of government activism. Confidence in the ability of policymakers to

adopt policies that bear fruit has diminished in today's world for many reasons, not the least of which is the fear that taxpayers have about the future confiscation of their income to pay for the run-up in government debts. Moreover, the loss of the Keynesian security blanket—the now apparent inability of government to increase employment by waving their magic debt wand—has shaken the foundation by which investors and consumers take risks, and this uncertainty is causing them to disengage. Policymakers must find new ways to boost confidence, and these days many believe the best way is for them to get out of the way.

At the Keynesian Endpoint, the ability of nations to pursue expansionary fiscal policies is curtailed, leaving nations with few options other than to run expansionary monetary policies that lift asset prices and power economic growth in the short-run. Many long-run options exist; in particular a redirection of fiscal spending toward investments that address the structural challenges that nations face rather than the cyclical ones. Unfortunately, it's a long slog, and it will therefore be some time before the deeply indebted see a return to “old normal” levels of economic growth. Nations seen as the worst offenders in the debt crisis will be forced to hasten the repair of their balance sheets, and they will have to reduce their spending, crimping their economic growth rates—materially in some cases, especially relative to nations in the emerging markets, many of which are now creditor nations.

With the ability of the fiscal authority curtailed, the monetary authority—the central bank—is left to do the heavy lifting. Mind you, there are limits to what central banks in the developed world can do because they risk losing hard-won inflation-fighting credibility they took decades to build. These include the Federal Reserve, the Bank of England, the Bank of Japan, and the European Central Bank (largely through the German Bundesbank, upon which the ECB's credibility was established). Neither of these banks is likely to succumb to their respective fiscal authorities and monetize profligate fiscal behavior. Instead, they will pursue only the most responsible irresponsible

expansionary policies, which is to say they will use policy tools that in normal times would be deemed irresponsible but today are necessary to achieve a set of outcomes different from what is deemed normal for the central banker. In particular, the central banks of highly indebted nations (primarily those of developed nations) will implement policies designed to prevent deflation and restore their respective inflation rates to levels that reduce the risk of deflation, generally to around 2 percent. One of these responsible irresponsible policies is the attempt to reflate asset prices. This is accomplished by establishing a low policy rate and by indicating it will be kept there for an “extended extended” period that creates a virtual house of pain in shorter-term fixed-income assets, compelling investors to move out the risk spectrum, as shown in Figure 1-7. Responsible central banks will recognize their limits, preventing any meaningful acceleration in the inflation prices of goods and services and in the reflation of the prices of financial assets, carrying important investment implications.



**Figure 1-7** Low interest rates compel investors to move to the perimeter of the risk spectrum.

Source: PIMCO

The investment implications in conditions such as these where the fiscal authority is rendered powerless in the short-run and the monetary authority is constrained by the defense of its hard-won credibility are many, and they mainly relate to the likelihood of slower than historical rates of economic growth, low to negative real interest rates for shorter-term fixed-income securities, and an ever-present risk of tail events, which will persist until debt levels are reduced relative to incomes. These elements in particular should guide portfolio positioning.

Following are a few of the many conditions and investment implications of the Keynesian Endpoint, which are covered in greater detail in Chapter 9, “The Investment Implications of the Keynesian Endpoint.”

## **Condition: Low Policy Rates Set by the World’s Central Banks**

To boost asset prices, liquidate government debts, reduce the debt burdens of the private sector, and stave off deflationary pressures that result from shortfalls in aggregate demand relative to supply, central banks will keep short-term interest rates low for the foreseeable future.

### ***Investment Implications***

#### **Steep Yield Curves**

Low policy rates engender steep yield curves in two ways in particular. First, they anchor rates at the short-end of the yield curve, pinning them lower. Second, low interest rates and accommodative monetary policies more generally enliven expectations for a strengthening of economic activity, boosting longer-term interest rates, where expectations for future inflationary pressures and eventual increases

in short-term interest rates reside. Central bank rate cuts are a clarion call for investors to engage in strategies designed to benefit from a steep yield curve for many months forward because monetary policy regimes tend to be long lasting. One strategy is to speculate against the possibility of future interest rate hikes, which many investors implement by betting against any central bank rate hikes that might be embedded in Eurodollar or federal funds futures contracts. In Europe, investors bet against increases in EURIBOR and EONIA, two key short-term interest rates in Europe. Investors can also invest to benefit from the positive carry and “roll down” that can be earned by investing in short maturities. For example, a U.S. 2-year Treasury yielding 0.80 percent will “roll down” the yield curve such that in a year’s time, when it becomes a 1-year Treasury, its yield will reflect the yield on 1-year maturities, say at 0.40 percent, picking up more for a year’s worth of “roll down” than is possible, say, from owing a 20-year maturity that becomes a 19-year maturity in a year’s time. (If a 40-basis-point yield difference existed for all securities on a yield curve spanning 20 years, the 20-year maturity would yield over 8 percent!)

### **Lower Rates Across the Yield Curve**

Low short-term interest rates anchor interest rates across the entire yield curve, and in an environment such as today’s where vast amounts of excess capacity are keeping a lid on wage inflation, inflation and hence interest rates are likely to stay under downward pressure for some time to come. The strategy therefore is to maintain a higher level of duration, or interest rate sensitivity in fixed-income portfolios than normal, at least until evidence begins to mount that the world’s central banks are becoming successful in reflating asset prices. In 2011, signs emerged in this regard, and a pickup in inflation is reducing the attractiveness of duration—credit is more likely to be the better source of value in a case where economic growth is sustained and inflation pressures are building.

In the early stages of monetary easing, “soft” duration is preferred over “hard” duration, which is to say it is better to increase the duration of a portfolio by increasing the amount of exposure to short-term maturities, such as Eurodollar contracts, or 2-year notes, which are likely to outperform long-term maturities on a duration-weighted basis. (An investor must purchase many more 2-year notes than, say, 10-year notes, in order to equate the interest rate sensitivity of 2-year notes to 10-year notes.) Eventually, investors should shift to “hard” duration and choose longer-term instruments when it appears likely that the Federal Reserve is set to begin its sequence of policy steps that will lead to a hike in short-term rates. When this happens the yield curve will flatten, and long-term maturities will outperform shorter maturities.

### **Low Interest Rate Volatility**

When policy rates are kept steady for an extended period, interest rate volatility tends to be lower than it is during periods when the central bank is either raising or lowering rates. The reason is because of the anchoring principle mentioned earlier. It is notable, for example, that at no time in the past 40 years has the 10-year Treasury note yielded more than four percentage points more than the federal funds rate—now *that’s* an anchor! When a central bank is expected to hold its short-term rate steady, an investment strategy that has worked well historically is to bet against volatility, through yield enhancement strategies such as selling option premiums, either by selling listed options or over-the-counter options, in the swaptions market, the options market for the giant interest rate swaps market. It’s not a strategy suitable for all investors but one often deployed by institutional investors.

### **Tighter Credit Spreads**

When interest rates are kept low for an extended period, investors tend to become increasingly compelled to seek out higher returns,

pushing them out the risk spectrum. In doing so, widespread purchases of so-called “spread” products, which include corporate bonds, asset-backed securities, mortgage-backed securities, and emerging markets bonds, cause these instruments to tend to perform well relative to assets deemed less risky, in particular government securities such as U.S. Treasuries. The strategy in this case therefore is to purchase spread products. Importantly, however, today’s risky credit environment means investors need proceed cautiously. This means staying high in the capital structure—choosing bonds over equities and choosing bonds that are more senior in terms of rank in the event of a company’s liquidation. It also means investing in bonds of high quality and of those whose cash flows will be less vulnerable in an economic recovery. Moreover, it sometimes means choosing companies with hard assets to sell because in the aftermath of a financial crisis, the recovery rates for bondholders of any liquidation is likely to be lower than in other times. Bonds that tend to make sense under these conditions include pipelines, utilities, and those of companies in energy and energy-related industries, as well as in the metals and mining arena. Each of these industries will retain some degree of pricing power, and their cash flows will be less vulnerable to cyclical forces than industries such as housing, gaming, lodging, retail, and those related to consumer discretionary spending.

## **Condition: Reduced Use of Financial Leverage**

Banks are unwilling to lend, and borrowers are unwilling to borrow; both parties wish to derisk their balance sheets, having learned lessons about risk the hard way during the financial crisis.

## ***Investment implications***

### **Lowered Investment Returns**

A nation that can no longer turbo-charge its economy through the use of financial leverage will experience some degree of slowing in the nominal growth rate of its economy. In other words, the actual level of spending the country experiences will be constrained by a lack of credit availability and a reduced willingness to spend, along with a higher personal savings rate. Moreover, having reached the last balance sheet, government spending will be restrained, too. In response to these realities, businesses will spend cautiously. Combined, these behaviors will translate into a lower rate of growth in overall spending and in many cases an outright decline when austerity measures by necessity are large. Slower growth rates in overall spending result in slow growth in revenue, the lifeline for corporate profits, weakening the prospect for investment returns in corporate equities. It also puts some corporate bonds at risk because cash flow is what is needed to meet payment obligations. Investment returns are damped also by a lack of corporate pricing power, which thins profit margins.

## **Condition: An Altered Global Economic Landscape**

It's an upside-down world: Developed countries now dominate the list of highly indebted countries, and developing countries top the list of creditor nations.

## ***Investment Implications***

### **Home Biases Are Risk—Scour the Globe**

The current era is a remarkable one, where the mighty have fallen and the meek have risen to the top. Developed nations such

as the United States, Japan, and those in Europe are now at the bottom of the wrung in terms of fiscal health, and emerging nations, including China, Brazil, and India, as well as many of their regional brethren, which were once at the mercy of the developed world but now supply capital to the capital-starved developed world rather than vice versa. It is a topsy-turvy world where emerging countries have become creditor nations. China's \$3 trillion in international reserves are a towering testament to the shifting global tide. In a world where investor confidence in any single nation can quickly evaporate and money can flee—call it *moneytourism*—keeping money invested in nation's whose poor balance sheets put their economies and financial markets at risk is an unattractive proposition. In contrast, countries that have built up reserves and have self-insured themselves against risk can self-finance their economic expansions and escape the worst of the Keynesian Endpoint. These nations, particularly those that entered the financial crisis with favorable initial conditions including demographics (relatively young populations and an increasing labor force), low budget deficits, low debt-to-GDP ratios, current account surpluses, high national savings rates, and high international reserves (relative to the size of their economies) are likely to have a strong ability to meet their payment obligations. For bond investors, this makes the high real interest rates of the developing world attractive, like blood to a vampire, yet many investors keep their money trapped in their home countries even though real interest rates there are either very low or in some cases negative. Assuming the emerging world has truly learned lessons from its past and will continue to behave as prudently as it has over the past decade or so, these real interest rates represent a glorious opportunity both outright and on a risk-adjusted basis. Investors need alter their old ways of thinking with respect to sovereign credit risk and broaden their opportunity set by exploring the many investment opportunities that exist in the emerging markets.

### **Intransigent Nations—Bad Places to Invest**

In many countries, there will be little or no integration between the Keynesian and Austrian schools of thinking because the Keynesian camp will be intransigent. The implementation of austerity measures in these countries will be challenging and painful. For years these countries made social promises to their citizens that have become too burdensome to keep. Yet the citizens of these nations will be unwilling to wean themselves from the familiar and comforting hand of government for the free market's invisible hand. As a result, these countries will see their economies languish because the Keynesian Endpoint means it will be impossible for them to raise money to support their social contracts and efforts to use debt to stimulate economic activity. In these cases, social unrest, income inequality, currency devaluations, debt restructurings, high unemployment, accelerated inflation, high real interest rates, and low investment returns will be key features. In short, the standard of living in these countries will decline.

In addition to differentiating between intransigent and flexible nations, investors must also examine the nature of programs developed to battle the financial crisis. The Austrian school believes that temporary government programs can be viral, becoming permanent features of an economy and stifling the private sector. This is why investors must judge which countries might become victim to policies that could crowd out the private sector. Investors must examine not only the size of government programs, but their half-lives; in other words, the speed and extent to which the programs will be unwound. Investors must also closely examine the exit strategies of governments from the fiscal and monetary programs they implemented during the financial crisis.

When nations reach the Keynesian Endpoint they have no choice but to reverse course on many of the priorities that brought got them there because reaching the Endpoint means they have gone too far

or at are at the risk of going too far, a verdict easily surmised through a variety of market-based indicators such as real interest rates, the shape of the yield curve, credit default swaps, credit spreads, bank deposits, capital flows, and so on. These indicators will reflect underlying trends in key gauges of fiscal health, including debt-to-GDP ratios, budget deficits, primary balances (a nation's budget deficit minus interest payments; see example forthcoming), savings rates (internal and external), reserve accumulation, and factors that influence these trends including budget rules, effectiveness in tax collecting, demographics, and the level of personal consumption relative to GDP (a gauge of the excess within an economy).

When reaching the Keynesian Endpoint, it is important for nations to ultimately achieve a zero primary balance because without it they cannot stabilize their debt-to-GDP ratios. When a nation achieves a zero primary balance, the amount of debt outstanding will tend to increase at the same rate as the nominal interest rate paid on the debt, leaving the debt-to-GDP ratio unchanged. For some nations, a stable primary balance fails to stabilize the debt-to-GDP ratio because the nominal interest rate paid on the national debt exceeds the growth rate of GDP. This will be the case for nations that are heavily indebted and that lack credibility in their fiscal affairs. Greece is an example. This presents an extra hurdle for many nations caught in today's sovereign debt dilemma: To stabilize their debt-to-GDP ratios, not only must these nations reduce their primary balances to zero, but they must gain sufficient credibility in the financial markets to keep their nominal interest rates at or below their growth rates in GDP. If they can't, they won't be able to alleviate their debt burdens. In a world of finite capital, serial defaulters and those with burdens deemed by investors as likely to be too difficult to fix with austerity measures alone will lose—the nominal interest rate will stay high, thus raising the risk of a default, which would be the only means of reducing their debt-to-GDP ratios.

## Sharing the Burden

At the Keynesian Endpoint, a nation must engage in burden sharing and spread the pain among four groups in particular, as discussed next.

### *Citizens*

Countries at the Endpoint have no choice but to re-examine and in most cases reduce their entitlement spending, which means cutting pension and health care benefits promised to their citizens. Politically, this is the most challenging element in the burden-sharing imperative, but without it nations at the Endpoint will be unable to put themselves on a sustainable fiscal path. Nations at the Endpoint, particularly those in Europe's periphery, are likely to see their entitlement policies converge with those of their neighbors; in other words, these nations will use as models for change the policies of their regional trading partners as well as their extended trading partners when proposing changes to their existing social contracts. For example, European countries that currently allow retirees to receive retirement benefits at ages that are below that of nations in relatively better fiscal health will probably raise their retirement ages, although not necessarily to the same level as these healthier nations, at least for while, owing to the large political difficulties of doing so. In addition to cuts in entitlement programs, citizens will likely have to bear the burden of targeted tax increases and other revenue generators, including those gained from consumption taxes and "sin" taxes that attempt to recoup costs associated with the poor habits the sin taxes are placed against. These habits of course include smoking, where associated medical costs are a direct hit to taxpayers. Citizens will likely also be forced to endure a reduction in services. Wise nations will target service cuts in areas where there will be little impact on the health and well-being of their people and that will minimize any impact on education, which is vital to the long-term vitality of a nation.

### ***Trading Partners***

A nation at the Keynesian Endpoint must allow its currency to depreciate in order to boost its economic growth rate and to attract capital. Those that do can effectively distribute some of their burden onto other nations. Nations that allow their currencies to depreciate will grab exports from other nations whose currencies are appreciating against their own, thus resulting in a positive in terms of trade shock. European nations that are part of the European Monetary Union are challenged in this respect because they do not possess the ability to devalue the euro. It is an internal dilemma. These nations will lack offsets to their fiscal austerity programs, rendering their economic growth rates low for a lengthy period of time.

### ***Monetary Partners***

Nations that reach the Keynesian Endpoint will borrow from their monetary brethren, which is to say relatively richer nations within a monetary union will transfer money to their brethren in need. This will boost the debts of the contributing nations. In Europe, this means Germany and France will increase their debt loads in order to save the periphery and keep them in the European Monetary Union. From another perspective, problems in states and cities in the United States will be shared by healthier states and cities.

### ***Bond Holders***

Via restructuring, investors holding bonds of countries that reach the Keynesian Endpoint will likely be forced to take “haircuts,” or losses, on their bonds. In some cases nations will ask investors to voluntarily agree to roll their debt at terms attractive only from the standpoint being the least worst alternative—bond investors would rather have their bonds redeemed at par at the original maturity date.

## Emphasize Investment, Not Consumption

Nations can boost their economies more over the long-run by channeling their funds toward investments rather than attempting to boost consumption. In other words, countries must recognize empirical evidence indicating that the multiplier effect from money channeled toward investments is greater over the long-run than the multiplier effect for money channeled toward consumption. At the Keynesian Endpoint it is imperative for nations to increase the multiplier effect of every unit of currency they deploy because they have no new money to deploy.

By emphasizing investment over consumption, nations can boost their productivity and in doing so raise their standard of living. Keynes himself, in an era of depression and at a time when long-range economic forecasting was, because of a lack of empirical data and economic theory, in its infancy, fully appreciated the importance of productivity:

From the sixteenth century, with a cumulative crescendo after the eighteenth, the great age of science and technical inventions began...What is the result? In spite of an enormous growth in the population of the world...the average standard of life in Europe and the United States has been raised, I think, about fourfold...In our own lifetimes...we may be able to perform all the operations of agriculture, mining, and manufacture with a quarter of the human effort to which we have been accustomed.<sup>5</sup>

Emphasis on investment should include government support for research and development, as well as education, training and retraining for both the unemployed and the under-employed (discouraged workers who have dropped out of the workforce and those working part-time solely because they can't obtain a full-time job), and productivity-enhancing infrastructure projects, including those that create more efficiency with respect to energy consumption and immigration laws designed to boost intellectual capital.

## Government Spending Must Be Redirected as Well as Cut

The term “fiscal multiplier” is the same conceptually as “bang for the buck.” Government spending that boosts a nation’s income by more than the amount it spends results in a fiscal multiplier of greater than 1.0. Here I highlight how at the Keynesian Endpoint, traditional concepts on the fiscal multiplier must be re-examined and reworked if government spending is to be a net positive for a nation’s economy.

To begin our discussion, there is no better place to start than to turn to the shepherd of the fiscal multiplier, John Maynard Keynes. He discussed the fiscal multiplier at length in his book, *The General Theory of Employment*, and it is at the center of Keynesian economics. In his book, Keynes refers to the works of Richard Kahn, who, Keynes says, was the first to introduce the concept of the multiplier in 1931 in his article on “The Relation of Home Investment to Unemployment” (*Economic Journal*, June 1931). Keynes interpreted Kahn’s theory as follows:

His argument in this article depended on the fundamental notion that, if the propensity to consume in various hypothetical circumstances is (together with certain other conditions) taken as a given and we conceive the monetary or other public authority to take steps to stimulate or to retard investment, the change in the amount of employment will be a function of the net change in the amount of the investment; and it aimed at laying down general principles by which to estimate the actual quantitative relationship between an increment of net investment and the increment of aggregate employment which will be associated with it.<sup>6</sup>

Keynes goes on to introduce the concept of the marginal propensity to consume (MPC), which measures the proportion of disposable income that is spent. The difference between disposable income and the marginal propensity to consume is the marginal propensity

to save. Keynes believes that as long as the MPC is high, increases in government spending result in a fiscal multiplier:

If the marginal propensity to consume is not far short of unity, small fluctuations in investment will lead to wide fluctuations in employment.<sup>7</sup>

Keynes allowed for leakages, pointing to important factors “not to overlook” when calculating the multiplier, including the source of funds used for government spending and the impact that the use of these funds might have on interest rates and inflation; the “confused psychology which often prevails” from government spending and its effect on confidence and therefore liquidity preferences; and the likelihood that “in an open system with foreign-trade relations, some part of the increased investment will accrue to the benefit of employment in foreign countries.” In other words, some of the spending will be on imported products, not domestically produced ones.

These leakages are major elements of the Keynesian Endpoint because the leakages reduce the effectiveness of continued fiscal profligacy and of traditional Keynesian-style efforts to stimulate economic activity through deficit spending.

Consider, for example, the impact of large budget deficits on liquidity preferences. Alan Greenspan (2011)<sup>8</sup> argues that the size of government affects investments in long-term assets, finding that as a share of corporate liquid cash flow, long-term fixed corporate investment “is now at levels, relative to cash flow, that we have not experienced since 1940.” He explains it this way:

I infer that a minimum of half and possibly as much as three-fourths of the effect can be explained by the shock of vastly greater uncertainties embedded in the competitive, regulatory and financial environments faced by businesses since the collapse of Lehman Brothers, deriving from the surge in government activism. This explanation is buttressed by comparison with similar conundrums experienced during the 1930s. I conclude that the current government activism is hampering what should be a broad-based economic recovery.<sup>9</sup>

Adding,

U.S. fixed private investment has fallen far short of the level that history suggests should have occurred given the recent dramatic surge in corporate profitability.<sup>10</sup>

Greenspan makes a vitally important point about how uncertainty affects human behavior, and he draws a link between the recent spreading of government activism and current uncertainties:

The inbred reaction of businessmen and householders to uncertainty of any type is to disengage from those activities that require confident predictions of how the future will unfold... While most in the business community attribute the massive rise in their fear and uncertainty to the collapse of economic activity, they judge its continuance since the recovery took hold in early 2009 to the widespread activism of government, in its all-embracing attempt to accelerate the path of economic recovery.<sup>11</sup>

If a nation is to be effective in optimizing the use of its taxpayer dollars, it must stop the leakages to which Keynes referred and get out of the way, so to speak. People will continue to fear confiscation of their income and cuts in benefits and services as long as their country is filled to the gills with debt and overly active. When these leakages are controlled or reduced, nations should focus on redirecting taxpayer money toward areas likely to provide lasting benefits, including infrastructure (why not retrofit buildings to make them more energy efficient?), research and development (spend to create new products that provide new sources of income), and education (or else the jobs will go elsewhere and the newly unemployed will have difficulty regaining employment).

It can be helpful for nations that have reached their borrowing limits to implement budget rules that investors will find credible. This is especially true for serial defaulters, who need to gain the credibility of investors. If they don't, the nominal interest rates on their debts will exceed the nominal growth rates of their economies. In this case,

the debt-to-GDP ratio will rise in perpetuity unless the nation runs a budget surplus large enough to offset the interest payments. In other words, achieving a zero primary balance (discussed earlier) won't necessarily be enough to stave off continued deterioration in a nation's fiscal situation if investors lack confidence that the zero primary balance will be sustained. A recent study by the IMF ("Fiscal Rules Can Help Improve Fiscal Performance," December 2009)<sup>12</sup> supports this idea.

Nations at the Keynesian Endpoint are starved for sources of economic growth. One that has been dependable is the implementation of free trade agreements (FTAs). To illustrate, consider data from the United States. In 2001, the U.S. had forged three FTAs. By 2006, it had signed 14 of them. Data from the Census Bureau in 2006 show that the 14 FTAs accounted for over 42 percent of U.S. exports even though these countries accounted for only 6 percent of the world economy. Data from the White House show that after 5 years of signing FTAs, the average increase in trade between bilateral trading partners was 32 percent; after ten years it bolted to 73 percent; after 15 years the increase surged to 114 percent. These data and numerous other data clearly show the benefits of free trade in boosting economic activity, presenting an enormous source of growth for countries willing to put down their protectionist arms.

Suppose a nation's economy is growing at a 5% annualized pace overall and 2% minus inflation. Suppose also that the nation's budget deficit is 4% of GDP. The nation decides that in order to reduce its debt-to-GDP ratio it will inflate its way out. In doing so, it boosts its money supply growth to say 8%, thereby spurring an 8% overall increase in the economy, but at the expense of more inflation, which increases to a 5% annual pace. In five years, this nation will have seen its economy grow by 40% in nominal terms, and its debts will have increased by 20%, lowering the GDP ratio by 4% per year. This seems desirable, but it isn't; the nation's purchasing power declined as a result of the increase in the inflation rate. This lowers the nation's standard

of living. The lesson is that nations must be careful about using this tempting math to lower its debt load because although it might solve the debt problem, it will create many unintended consequences.

Despite the risks, nations for centuries have turned to coinage and the printing of money as a means of shedding debt, in many cases with disastrous consequences. The many lessons learned from the debasement of currencies nevertheless are lost upon Keynesians, as they seeing through rose-colored glasses debt spending as the cure for all that ails a nation.

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