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HIGHLIGHTS

- Bond yields have snapped higher since May, driven primarily by the U.S. Federal Reserve’s taper talk and the process of economic normalization.
- Whereas the move appears outsized on the surface, it is easier to justify when the Fed’s actions are acknowledged for the major signal that they are. Moreover, our models argue that the new level of yields is appropriate.
- The economic cost of higher rates is material, but not crippling. Interest-sensitive sectors like housing suffer the greatest hit to borrowing, while the Treasury is particularly exposed to the cost of higher rates.
- Yields should continue to rise – if at a more leisurely clip – as expected central bank actions are eventually delivered and as bond market distortions fade.

YIELDS REGAIN BUOYANCY

Having trawled the ocean’s deepest trenches for several years, bond yields suddenly regained buoyancy in May of 2013. The speed and extent of the subsequent increase in yields has precedent, but it is nonetheless unusual. And whereas many past dislocations of this magnitude ultimately proved temporary, this one looks capable of enduring, symbolizing as it does the end of a 30-year bond bull market.

This report examines the catalysts for this latest increase in rates, the broader forces at work in the bond market (Exhibit 1), the probable future trajectory for yields, and the effect of this movement on the economy and investors.

The increase

The U.S. 10-year Treasury yield has galloped 96 basis points (0.96 percentage point) higher from the start of May, to 2.62% in early October (Exhibit 2). As the world’s bond bellwether, this movement has in turn prodded other borrowing rates – within the U.S. and outside – materially higher as well (Exhibit 3).

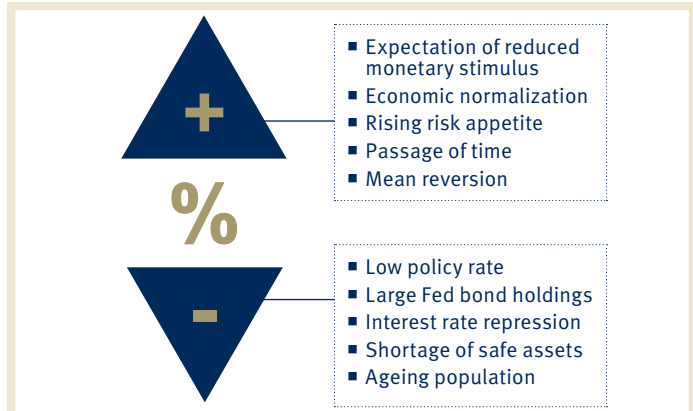
The reason

Two catalysts can take the credit for this upward movement in yields.

The first reason is so obvious that it is frequently overlooked: the simple passage of time. Even with unaltered assumptions about the timing and degree of eventual U.S. Federal Reserve (the Fed) rate hikes, those policy actions are now five months closer than they were in May. By itself, this is worth a chunky 16-basis-point increase in the U.S. 10-year yield.

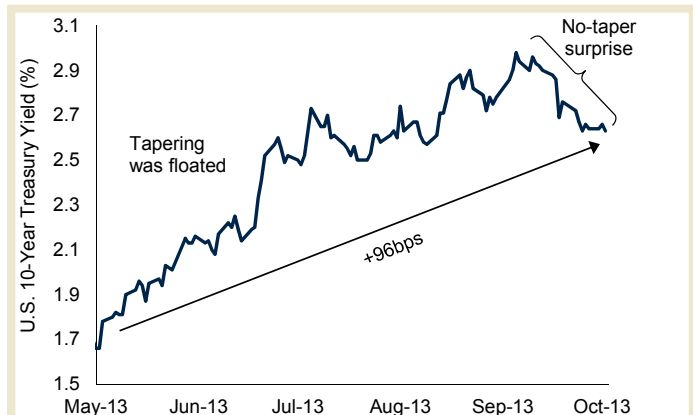
The remaining 80-basis-point increase in yields appears to come – in one incarnation or another – from the Fed’s new

Exhibit 1: Bond market forces



Source: RBC GAM

Exhibit 2: Bond yields gallop higher



Source : Federal Reserve Board, RBC GAM

“taper” plans, which were first unveiled in May. In brief, the central bank now wishes to begin scaling back its bond-buying operations from the current \$85-billion-per-month clip.¹ As the clamour surrounding this impending withdrawal grew louder, the fixed income market rationally responded with higher bond yields (and therefore lower bond prices).

But this answer is not entirely satisfactory, as an 80-basis-point increase in yields feels like an outsized response to what was actually only a modest acceleration in the expected taper timing relative to the market’s pre-May assumptions. Confirming this hunch, we calculate that the resulting shift in the expected present value of the Fed’s balance sheet warrants no more than an 11-basis-point increase in yields.² Intuitive confirmation for the mildness of this impulse emerges from the realization that – whatever the precise contours of the Fed’s taper plans – they are dwarfed by the overall increase in its balance sheet since the onset of the financial crisis (Exhibit 4).

Sending a signal

So has the bond market overreacted to the Fed’s news? Not necessarily. When the Fed talked about buying fewer bonds, it was sending a signal that resonated far beyond the mere bond-buying program. It revealed that the Fed’s focus has fundamentally changed, from delivering ever more stimulus to considering ways to remove that stimulus. This has led to the entirely reasonable extrapolation that the fateful day when the Fed will conduct its first rate hike has also probably neared, as has the date when its ponderous balance sheet will begin shrinking. More generally, *it signals that the Fed now subscribes to the view that the U.S. economy is normalizing and that inflation risks no longer seriously extend to the downside.* All of this combines to provide a clear signal that the three-decade bull market in bonds is probably over.

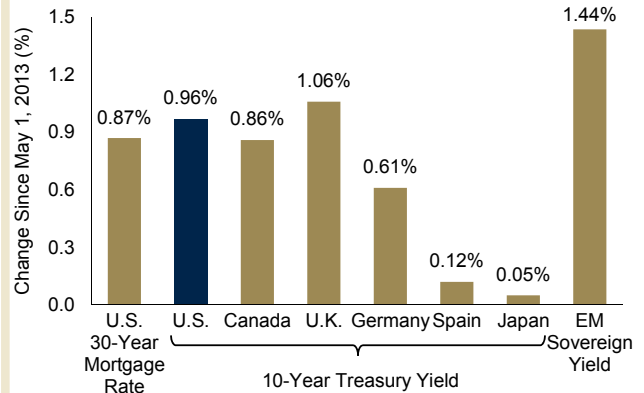
This sea change is not mere conjecture on our part: some of the notions discussed above can be quantified. For instance, the market now looks for an extra 52 basis points of rate hikes by mid-2016 (Exhibit 5). This is worth about a 24-basis-point increase in the 10-year yield (Exhibit 6).

If the market has similarly concluded that the Fed’s bond portfolio will be allowed to begin running down six months sooner than previously assumed – a seemingly reasonable conjecture – this merits another 21-basis-point increase.

¹ Of which \$45 billion is directed into the U.S. Treasury market. The remainder goes to mortgage-backed securities (MBS).

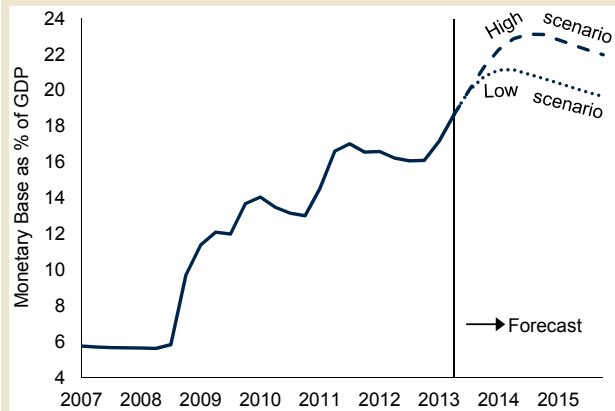
² In fact, there is even a tempting argument that it doesn’t justify any increase in yields at all after the Fed set market expectations back by failing to taper its buying operations in September.

Exhibit 3: Rising rates contagion



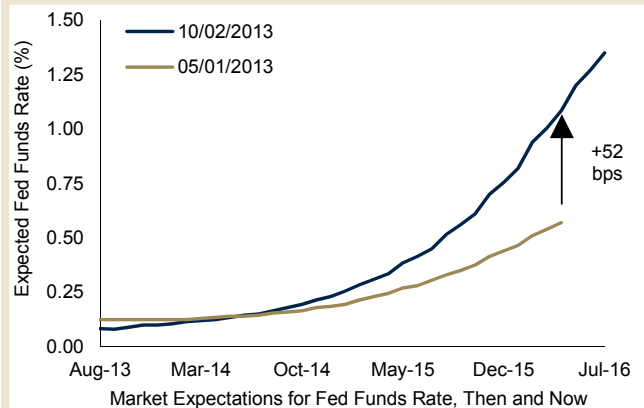
Note: As of October 2, 2013. Source: Bloomberg, Haver Analytics, RBC GAM

Exhibit 4: Fed taper scenarios are little different in grand scheme



Note: High scenario assumes a later start to tapering and slower pace of reduction in asset purchase. Source: Haver Analytics, RBC GAM

Exhibit 5: Rate hike expectations rising ...



Source: Bloomberg, RBC GAM

On the other hand, inflation expectations have actually edged slightly lower since May, subtracting 10 basis points from yields (Exhibit 7). This could reflect some concern that the Fed’s tightening plans are premature, though the move is sufficiently small that it is difficult to interpret.

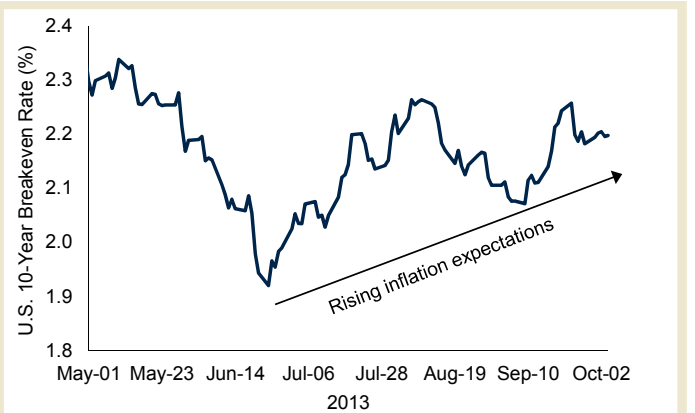
This tangle of factors combine to warrant a substantial 62-basis-point increase in yields since May (Exhibit 8). This is still shy of the 96-basis-point increase that has actually occurred, but one last set of considerations may bridge the lingering divide.

Prior misvaluation

It is important to recognize that bond yields were unsustainably (and possibly even unjustifiably) low beforehand. The Fed’s pivot, combined with normalizing economic conditions, served as a trigger to unwind some of the bond market’s most egregious distortions, such as negative real yields and a negative term premium.

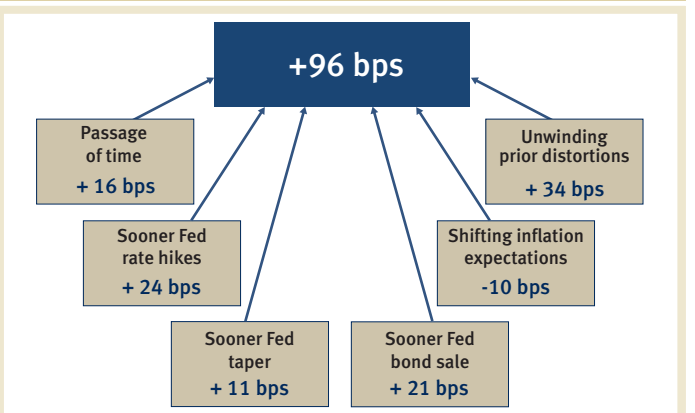
Real yields pinpoint the true return a bond investor receives after accounting for inflation’s corrosive effects. While real yields are generally lower than nominal yields, one would normally expect them to nevertheless be positive. After all, few investors would consider an investment that can be expected to make them poorer. Negative real yields do occasionally spark into existence, but can survive only during bouts of extreme risk aversion, or when fanned by large distortions (such as from central bank purchases). These abnormal conditions held sway until recently, constricting the U.S. 10-year real rate below zero. But in synch with the normalizing environment, positive real yields have now surfaced (Exhibit 9).

Exhibit 7: Inflation expectations rising, but no higher than in May



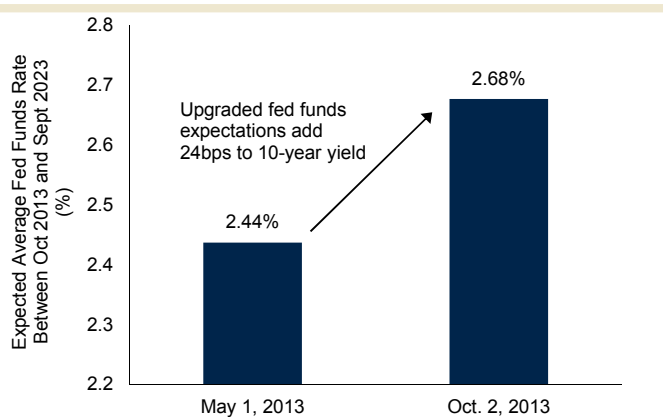
Source: Bloomberg, RBC GAM

Exhibit 8: Explaining the increase in yields



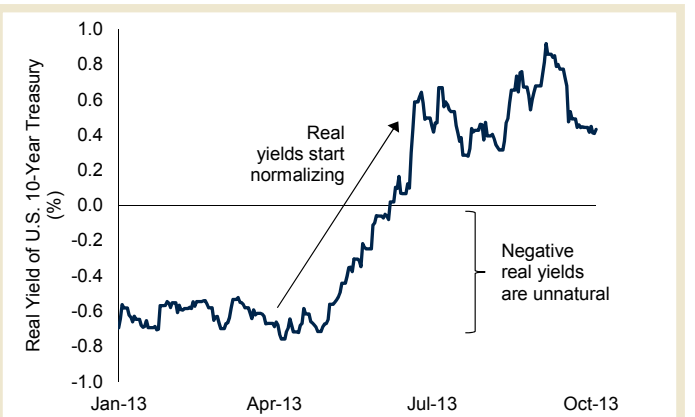
Note: May 1, 2013 to October 3, 2013. Source: RBC GAM

Exhibit 6: ... Resulting in higher expected average fed funds rate



Note: Using fed funds futures through mid-2016, followed by the Philadelphia Fed Survey of Professional Forecasters 2013 expectation for May 1, versus signal from latest Fed forecasts for Oct 2. Source: Bloomberg, Haver Analytics, Federal Reserve, Philadelphia Fed Survey of Professional Forecasters, RBC GAM

Exhibit 9: Real yields are no longer negative



Source: Bloomberg, RBC GAM

Term premiums reflect the extra return that investors are supposed to earn as compensation for taking on the additional uncertainty of a longer-dated bond. But the term premium collapsed into negative territory during the global financial crisis, in significant part due to the depressive effect of Fed bond purchases at the long end. A popular estimate from Kim and Wright³ calculates that the term premium has now begun to normalize, gliding from -78 basis points at the start of May to a greatly improved (though still low) -4 basis points in late June (Exhibit 10). Our own fresher estimate (using a different methodology)⁴ puts the term premium slightly lower, at -9 basis points today.

Taking a broader tack, perhaps the focus should be less on the outsized increase in yields that has occurred, and more on the appropriateness of the resulting level. Whereas many of our bond models struggled to validate 10-year yields as low as 1.58% over the past year, they are reasonably comfortable with current valuations (Exhibit 11).

Economic consequences

Higher rates traditionally bring lower growth. Indeed, the sharp increase in yields should slow U.S. GDP growth by around 0.2% per year (Exhibit 12). This is material, but not devastating. In fact, we are loath to revise growth forecasts downward due to

³ Kim and Wright (2005), "An Arbitrage-Free Three-Factor Term Structure Model and the Recent Behavior of Long-Term Yields and Distant-Horizon Forward Rates," Federal Reserve Board Working Paper.

⁴ The Kim and Wright model estimates the term premium by using other financial variables as proxies for the term premium. We attempt to estimate the term premium by evaluating the likely path for monetary policy over the next decade, allowing us to separate the term premium from the policy rate effect.

Exhibit 11: U.S. 10-year Treasury fair-value yields

Model	Latest Estimate
PH&N long-term real interest rate model	2.95%
RBC GAM bond macro model	2.93%
PH&N Treasury yield dynamic state space model	2.72%
RBC GAM arbitrage model	2.65%
RBC GAM fair-value band model	2.58%
Average model fair value	2.76%
Actual U.S. 10-year yield (Oct. 2)	2.62%

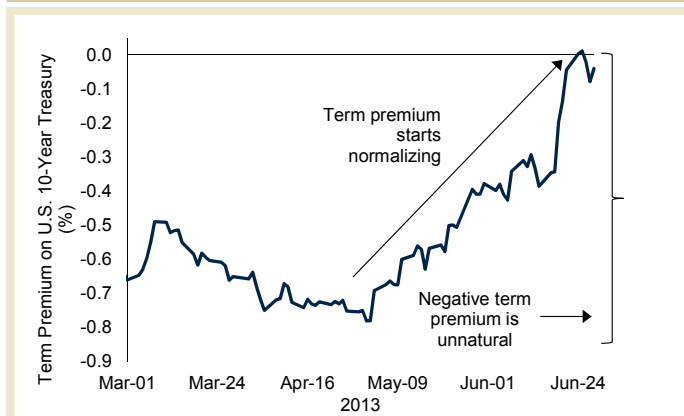
Source: Haver Analytics, PH&N, RBC GAM

Exhibit 12: Economic impact of higher rates

		Change in Central Bank Rate (%)									
		-2.0	-1.5	-1.0	-0.5	0.0	+0.5	+1.0	+1.5	+2.0	
Change in 10-Year Yield (%)	-2.0	0.7	0.6	0.6	0.5	0.4	0.4	0.3	0.2	0.1	
	-1.5	0.6	0.5	0.5	0.4	0.3	0.2	0.2	0.1	0.0	
	-1.0	0.5	0.4	0.4	0.3	0.2	0.1	0.1	0.0	-0.1	
	-0.5	0.4	0.3	0.2	0.2	0.1	0.0	0.0	-0.1	-0.2	
	0.0	0.3	0.2	0.1	0.1	0.0	-0.1	-0.1	-0.2	-0.3	
	+0.5	0.2	0.1	0.0	0.0	-0.1	-0.2	-0.2	-0.3	-0.4	
	+1.0	0.1	0.0	-0.1	-0.1	-0.2	-0.3	-0.4	-0.4	-0.5	
	+1.5	0.0	-0.1	-0.2	-0.2	-0.3	-0.4	-0.5	-0.5	-0.6	
+2.0	-0.1	-0.2	-0.3	-0.4	-0.4	-0.5	-0.6	-0.6	-0.7		
} % effect on sustainable GDP growth rate											

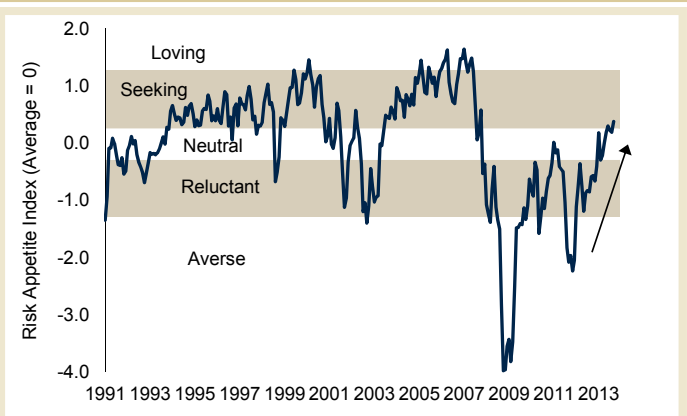
Source: RBC GAM

Exhibit 10: Term premium snaps back



Source: Kim & Wright (2005), Federal Reserve, RBC GAM

Exhibit 13: Reviving risk appetite



Note: Measures risk appetite based on 46 normalized inputs.
Source: Bloomberg, BofA ML, Consensus Economics, Credit Suisse, Federal Reserve Bank of Philadelphia, Haver Analytics, NedDavis, RBC GAM

counterbalancing economic improvements elsewhere, such as a rising risk appetite (Exhibit 13) and a diminishing fiscal drag (Exhibit 14).

Of course, the dampening effect of higher rates is not merely domestic in nature. Because higher U.S. yields have bled into other countries, global growth should be similarly dented, with an exaggerated effect on emerging markets.

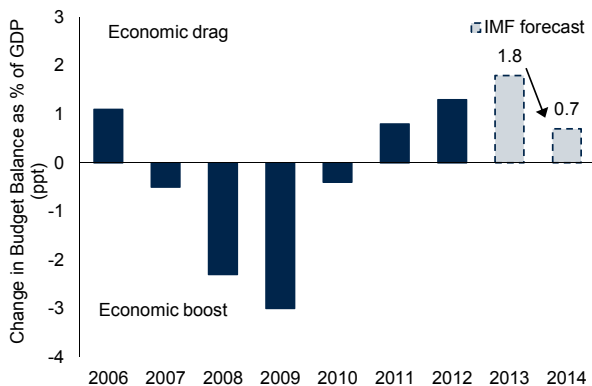
The economic hit comes via a combination of quantity and price effects. Quantity effects reflect the decision to borrow less, given the deterrent of higher rates. Price effects refer to the extra cost that higher rates impose on those with pre-existing loans.

The housing market is particularly vulnerable to quantity effects. U.S. mortgage refinancings have been especially dramatic in their swoon (Exhibit 15).⁵ Other elements of the housing market such as construction and resale activity have also been dulled by higher mortgage rates, but to a far more limited extent. Despite these hiccups, we believe there remains considerable upside to U.S. housing. Affordability remains alluring (Exhibit 16) and construction activity remains conservative (Exhibit 17). Framed another way, mortgage applications have considerable room to grow even amid higher rates (Exhibit 18).

The U.S. government has inelastic borrowing needs, meaning that it is unlikely to respond to higher rates by borrowing less. It is nevertheless highly impacted by the price effect due to a large U.S. public debt load that has now cracked 100% of GDP. Fortunately, the extra cost is smaller than it first looks.

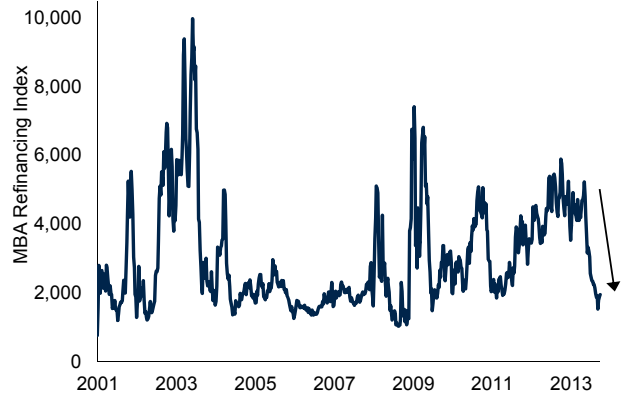
⁵ It is not surprising that mortgage refinancing has responded with particular vigour. The decision to buy a home is certainly contingent upon the level of mortgage rates, but is also based on the strength of the labour market and the expected direction of home prices. In contrast, mortgage refinancing is almost purely a function of whether current mortgage rates are lower than a home owner's previous rate. For many Americans, they no longer are.

Exhibit 14: A smaller U.S. fiscal drag expected in 2014



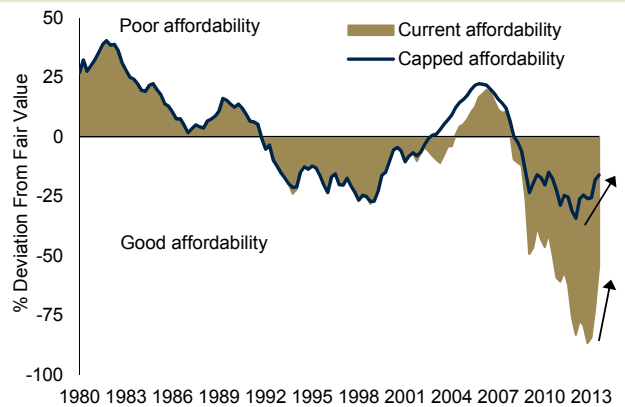
Source: IMF, Haver Analytics, RBC GAM

Exhibit 15: Mortgage refinancing down sharply



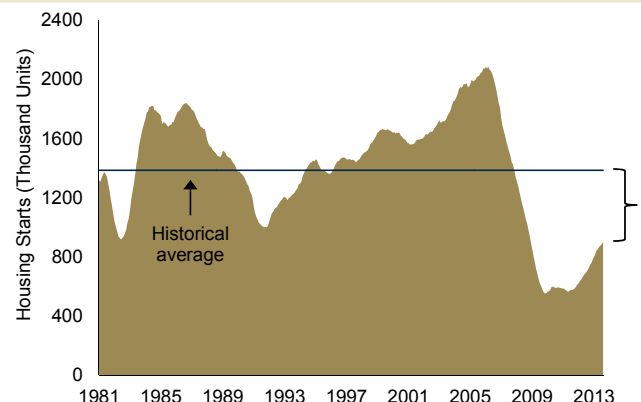
Source: Mortgage Bankers Association, Haver Analytics, RBC GAM

Exhibit 16: U.S. housing affordability deteriorating but still good



Note: Calculates for 30-year fixed rate mortgage with 25% down on median single-family home price, for median household income. Current affordability calculates the current deviation from the historical norm. Capped affordability gauges affordability using a floor of normal borrowing rates.
Source: Haver Analytics, RBC GAM

Exhibit 17: U.S. housing starts still have room to grow



Note: 12-month moving average of housing starts. Historical average since 1980.
Source: U.S. Census Bureau, Haver Analytics, RBC GAM

The big chunk of bonds held by the Fed is effectively interest free since the Fed's profits are repatriated back to the Treasury Department. The remainder does indeed face higher rates, but a significant part of coupon payments is recycled back into government coffers via taxation. Furthermore, even as government borrowing costs rise, it is relieving that the starting burden is quite low (Exhibit 19) and that the higher rates will only impact with a long lag due to recent efforts to extend the duration of the Treasury's bond portfolio (Exhibit 20).

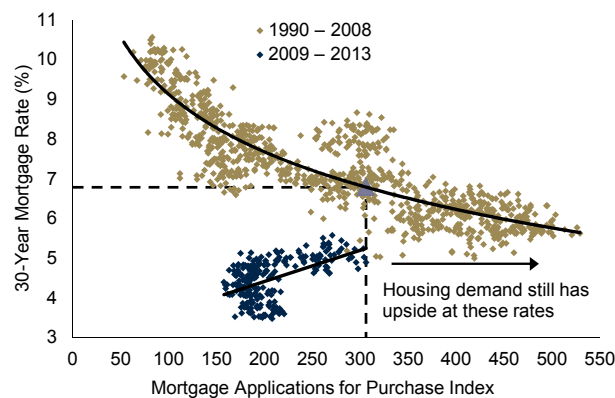
On the other hand, higher rates have some redeeming features. Long-suffering savers – seniors, banks and insurance companies among them – should benefit.⁶ From a philosophical standpoint, higher rates may even improve economic efficiency. When borrowing costs are low, many borderline investments get funded. Under a higher interest rate regime, these questionable investments can no longer be justified, whereas higher-quality projects proceed.

Future rates

It is one thing for bond yields to leap higher, as they have. It is something very different for them to sustain that increase, let alone extend it. As Exhibit 21 reveals, the largest bond market sell-offs – including the much-cited episode of 1994 – have tended to subsequently unravel.

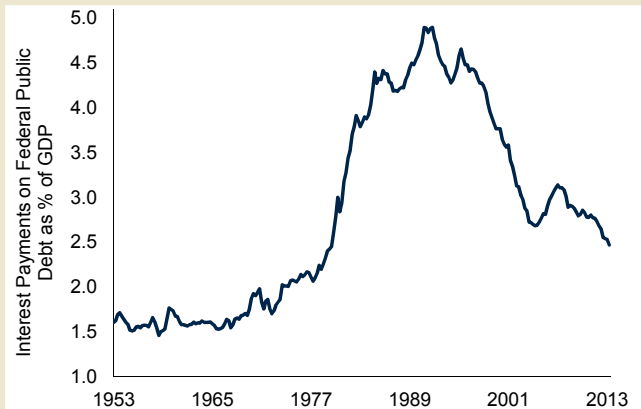
⁶ The effect of higher rates on banks is not entirely one-sided. To the extent that the economy slows, this is negative. And to the extent that the net interest margin narrows as yields rise and the yield curve flattens, banks could suffer some loss of profitability. But this seems to be more than offset by the advantage of escaping from the zero bound that has kept deposit rates unnaturally high.

Exhibit 18: Rising mortgage rates shouldn't crimp home buying



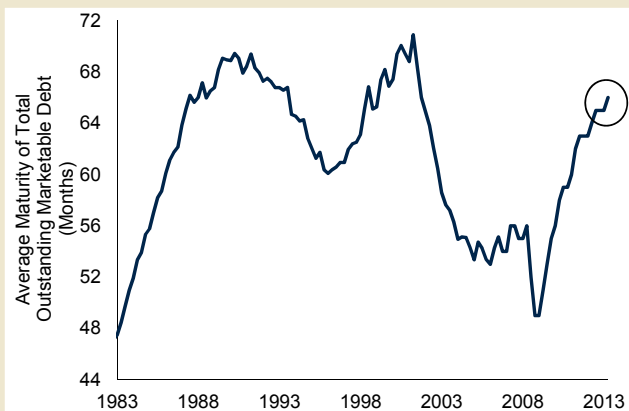
Source: Mortgage Bankers Association, Haver Analytics, RBC GAM

Exhibit 19: U.S. public debt load is relatively cheap to finance



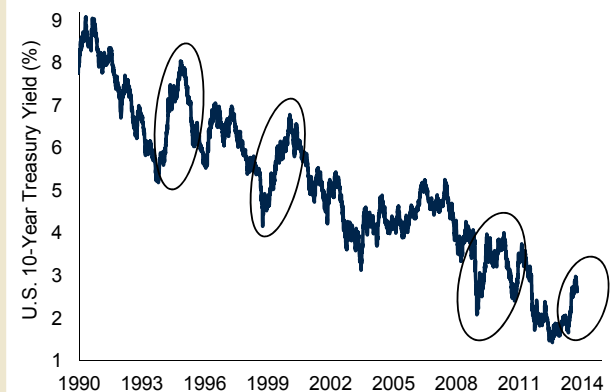
Source: U.S. Treasury, Haver Analytics, RBC GAM

Exhibit 20: Low U.S. borrowing costs are locked in for years



Source: U.S. Treasury, Haver Analytics, RBC GAM

Exhibit 21: Major U.S. 10-year Treasury sell-offs often unravel



Source: Federal Reserve, Board, Haver Analytics, RBC GAM

Despite this track record, we suspect the latest move can stick, and that – over time – there will be more to come. Here are seven reasons why.

1) Central bank expectations

The Fed is unlikely to raise its short-term benchmark interest rate before 2015 at the earliest. But the timing nonetheless grows nearer by the day. Going forward, the simple passage of time should elevate the U.S. 10-year yield by 36 basis points per year due to this effect alone (Exhibit 22). Bolstering this argument, our Taylor Rule model suggests that Fed expectations are – if anything – overly cautious, especially when the effects of quantitative easing are included (Exhibit 23). Perhaps this conservative approach by the Fed is well advised given a desire to avoid replicating past policy errors, such as the premature tightening that occurred in 1937 and 1994.⁷

2) Fed balance sheet expectations

The Fed is still several years from shrinking its distended balance sheet back to more normal proportions. In the meantime, we estimate that the net present value of the Fed’s oversized balance sheet is currently depressing yields between 84 and 125 basis points (Exhibit 24). But, counterintuitively, this depressive effect is already shrinking. Due to the forward-looking nature of markets (and of our net-present-value calculations), simply getting closer to the date when sales commence – let alone enacting the sales themselves – justifies higher yields. We calculate that this effect should add 15 to 20 basis points per year to the U.S. 10-year yield going forward.

3) Rising real rates

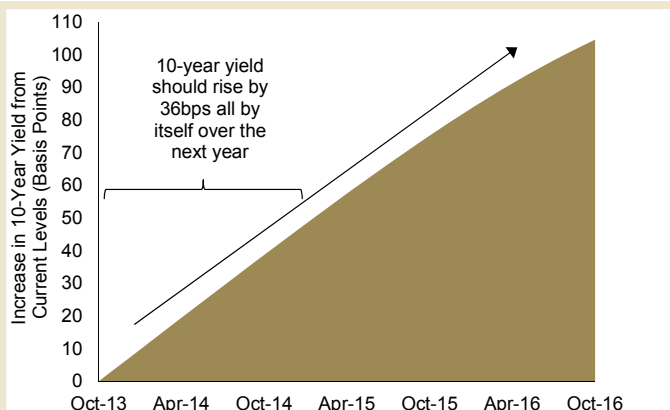
Real rates are no longer negative. But they are still unusually low, clocking in at +45 basis points versus a historical norm of 2% or higher (Exhibit 25). They are unlikely to fully revert to this level anytime soon, but improving risk appetite and economic growth should nonetheless continue to nudge them higher.

4) Rising term premium

The term premium is no longer deeply negative, but it has yet to turn positive and is a long way from the historical norm of +100 basis points (Exhibit 26). Attempting to pinpoint a precise fair value for the term premium may be folly, however, as there has been nothing stationary about the series over the past several decades. Suffice it to say that, barring extreme distortions in supply and demand, the term premium should at least be positive. This leaves room for some further increase in yields.

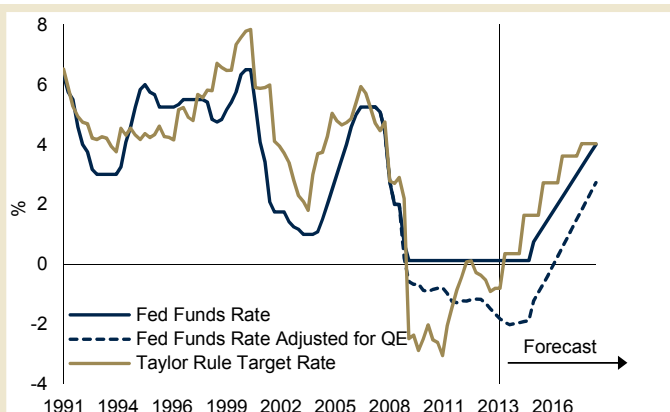
⁷When early and/or excessive Fed tightening triggered undesired economic weakness.

Exhibit 22: Yields will naturally rise over time as expected rate hikes approach



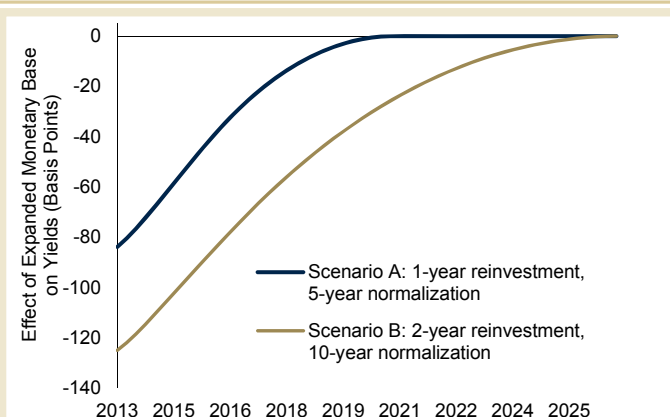
Note: Yields rise naturally as time passes and the fraction of the coming decade subject to ultra-low policy rates shrinks. It does not require any upgrade in rate hike expectations, simply that the expected rate hikes eventually materialize on schedule. Source: Bloomberg, RBC GAM

Exhibit 23: Taylor Rule infers steady withdrawal of stimulus



Note: Taylor Rule rate projected using OECD output gap forecast and RBC GAM inflation forecast. Source: Haver Analytics, RBC GAM

Exhibit 24: Downward yield distortion to fade over time



Note: Estimated based on expected present value of Fed balance sheet. Reinvestment is time monetary base stays at its maximum size post taper. Normalization is time until balance sheet returns to normal. Source: Chung, Laforde, Reifschneider, and Williams (2011), Goldman Sachs, Haver Analytics, RBC GAM

5) Bond market flows

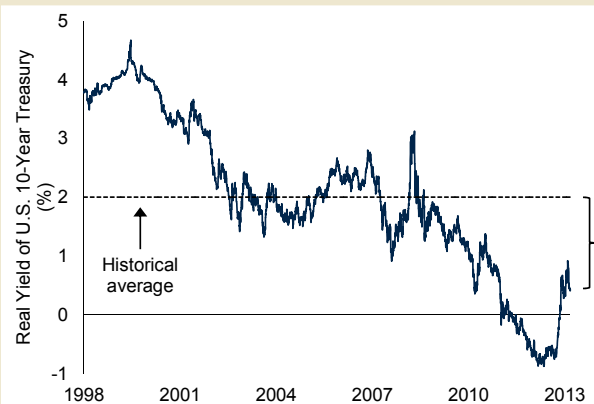
Knowing who is buying bonds and who is issuing them – bond market flows – is also important. On the supply side of the equation, the U.S. has been a heavy net issuer of Treasury bonds for over a decade. This has furnished a large supply of bonds, which have been ably absorbed by two key groups: the Fed and foreign reserve managers.

The Fed has been an important buyer of government bonds since 2009, thanks to several rounds of quantitative easing. Its exit will certainly be relevant – as discussed already – though its influence may be overstated. For all of its buying, the Fed has financed just 31% of the Treasury’s needs over the past year, and 21% over the past five years (Exhibit 27).⁸ Moreover, interest rate-sensitive participants such as financial institutions, households and mutual funds – who were crowded out by the Fed on the way down – should helpfully fill the void as rates rise (Exhibit 28). Thus, while the Fed’s eventual withdrawal argues for higher yields, the effect may not be as explosive as some imagine. We figure that every one basis point increase in Treasury yields should attract a whopping \$33 billion in additional investment.

Ominously, another key set of buyers from the past decade – emerging market foreign reserve managers – have also lately lost their prodigious appetite. This is not because they fundamentally doubt the status of the U.S. as the world’s reserve currency, or even that they are particularly concerned about the U.S. debt load. Instead, it is primarily because their current account surpluses have shrunk, simultaneously diminishing the availability of funds and the need for such

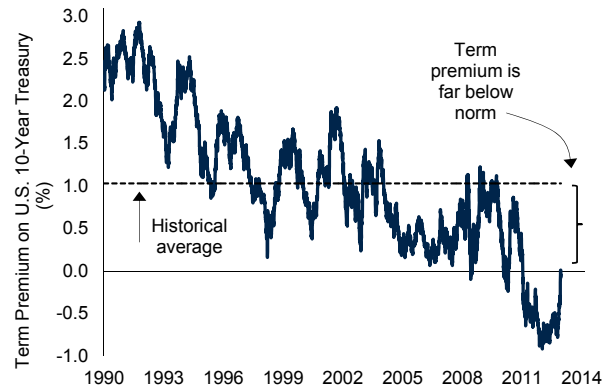
⁸ Its influence is admittedly larger around some maturity dates.

Exhibit 25: Real yields have shot up, but are still low



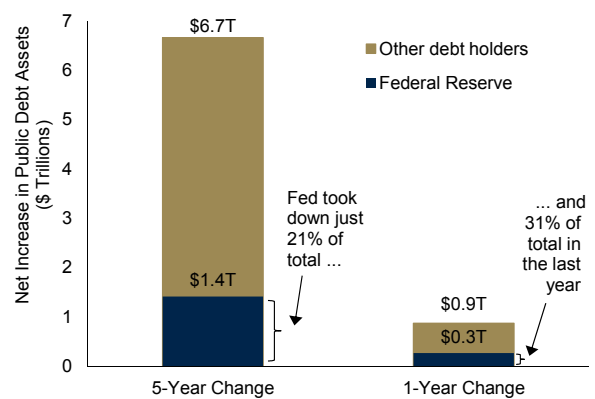
Source: Bloomberg, RBC GAM

Exhibit 26: Term premium higher, but still very low



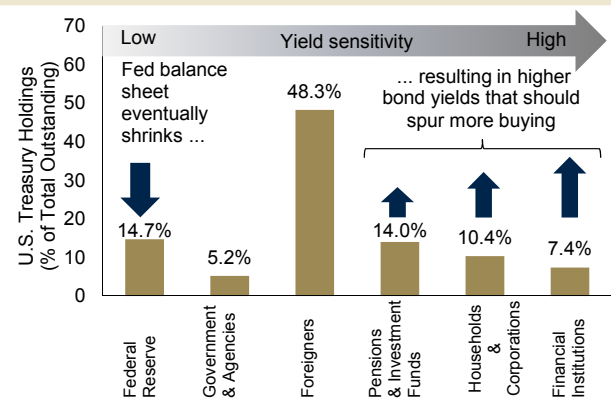
Source: Kim & Wright (2005), Federal Reserve, RBC GAM

Exhibit 27: Fed buying will be missed, but not irreplaceable



Note: As of Q2 2013. Source: Federal Reserve, Haver Analytics, RBC GAM

Exhibit 28: Private sector to buy more Treasuries as yields rise



Source: Deutsche Bank, Haver Analytics, RBC GAM

acquisitions. This is actually less concerning than it first seems. Take China as an example. China's purchases have ebbed as its current account surplus has withered. However, it is no coincidence that the U.S. current account deficit has itself shrunk – recently hitting its smallest level in 15 years. This means that the U.S. has less need for that foreign money than before, as domestic savings can absorb a greater share.

What if China were to go on a U.S. buying strike, directing its investment dollars elsewhere? This risk is smaller than it looks. Despite occasional volleys of tough words, China and the U.S. enjoy a symbiotic economic relationship, and it is unlikely they would truly seek to harm one another. A second safeguard exists in the fact that the global financial system is effectively a closed loop. If China directed its cash elsewhere, this would displace other money, and this other money would eventually find its way back to the remaining hole in the system – the forsaken U.S. Treasury market. This game of musical chairs is not completely consequence-free, but it nevertheless provides a welcome cushion.

6) High public debt

The U.S. public debt load is now rather high (Exhibit 29). Historically, there has been a link between the level of a nation's bond yields and the size of its public debt. This would seem to argue for elevated borrowing costs. But we are reluctant to embrace this notion too eagerly. The relationship is notoriously loose, subject to unclear threshold effects (meaning that no link exists until the debt load breaches a certain – unknown – threshold) and there is good reason to think that the U.S. bond market enjoys a special dispensation to borrow without fear of reprisal due to the reserve currency status of the U.S.⁹

7) Long-term historical norm

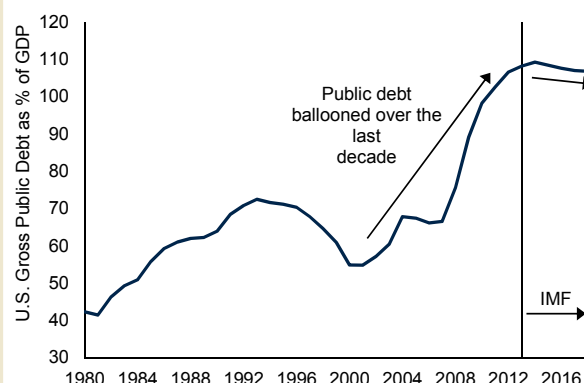
Looking back at 134 years of nominal bond yield data reveals two important findings (Exhibit 30). First, the high rates of the 1970s and 1980s were extreme outliers. Second, the U.S. 10-year yield normally fluctuates between about 2% and 5%. The central tendency within this range is moderately higher than current levels, but not distressingly so.

Tempering factors

To varying degrees, all seven of the aforementioned factors support a further rise in yields. But it is important to acknowledge a few tempering factors that could limit the ferocity of any increase, and constrain the ultimate level of yields to somewhat below the historical norm.

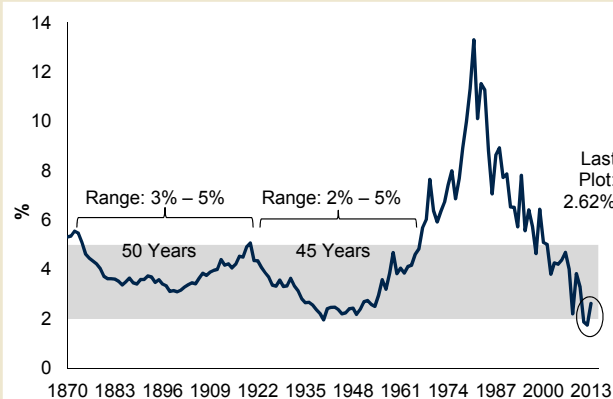
⁹ Japan provides an example of how special factors (in Japan's case, a high domestic savings rate) can permit a country to borrow enormously without suffering higher borrowing costs.

Exhibit 29: U.S. public debt is fairly high



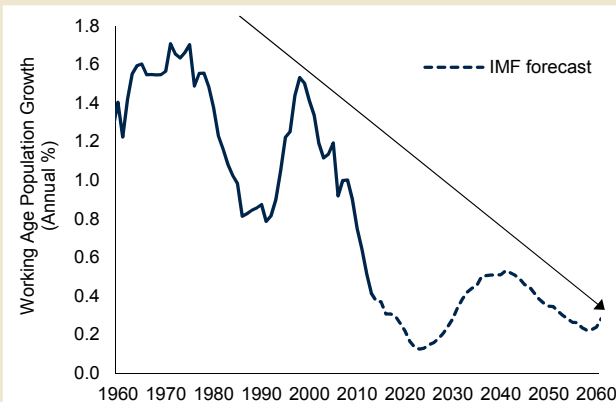
Source: IMF, Haver Analytics, RBC GAM

Exhibit 30: Historical U.S. 10-year Treasury yields



Source: RBC GAM, RBC CM

Exhibit 31: Slower working-age population growth



Source: UN, RBC GAM

- A. Diminishing population growth (Exhibit 31) should constrict the sustainable economic growth rate, and economic growth is historically aligned with the level of bond yields (Exhibit 32).
- B. An ageing population tends to favour fixed income investments, which according to academic research could deflate sustainable bond yields by as much as 50 basis points.
- C. Policymakers may wish to subtly repress interest rates to assist in public debt reduction efforts.
- D. There is arguably a safe asset shortage due to widespread ratings downgrades that have diminished the number of highly rated sovereigns (Exhibit 33), corporations and securitized bonds. At the same time, demand for safe assets remains structurally high as banks are instructed to boost their holdings and as emerging market economies seek to allocate a fraction of their rising savings toward safety.¹⁰

Self-correcting safeguard

Finally, we must acknowledge an important safeguard that constrains an overly vigorous increase (or decrease) in yields. As we have noted, higher borrowing costs result in slower economic growth. Slower economic growth, in turn, limits central banks' enthusiasm for tighter monetary policy. Via this two-step jig, yields are prevented from drifting too far away from economically appropriate levels. Thus, while a 3% 10-year yield is conceivable over the next six months, a 5% 10-year yield is probably not.

The path forward

So, where will yields go over the next year?

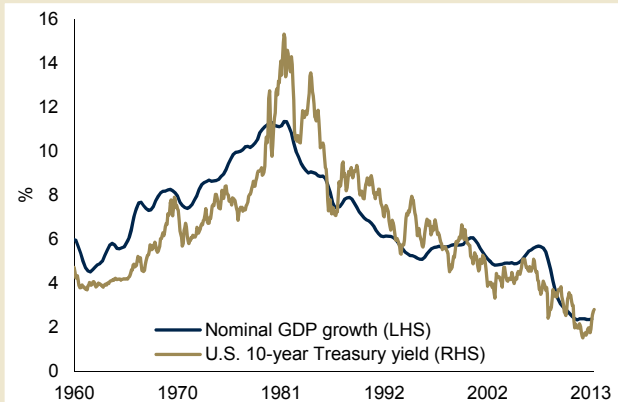
The direction is certainly more likely to be up than down. Indeed, one might go so far as to argue that the 30-year bull market in bonds is now probably over. New lows in yields are unlikely now that economic conditions are improving and the Fed appears to be changing course.

But any sustained upward shift in the future should unfold more slowly than the initial spurt did, subject to the usual sawtoothed action along the way.

The best strategy for anticipating the bond market may be via a probabilistic framework. Exhibit 34 gives a sense for our view of the likelihood of various yield scenarios in one year's time, lumped into 50-basis-point buckets. To summarize, we believe

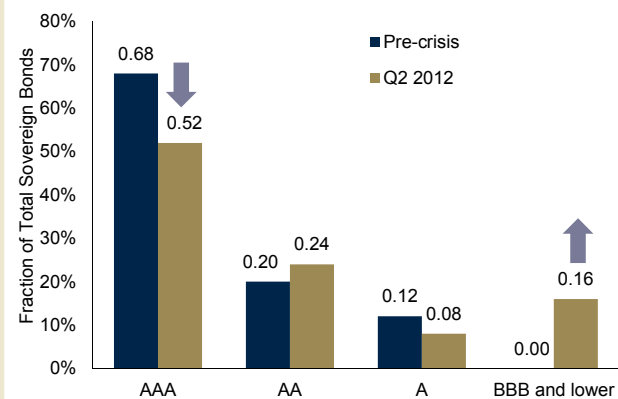
¹⁰ Many emerging market nations lack any investment grade – let alone highly rated – domestic savings vehicles. They are thus forced to go beyond their borders.

Exhibit 32: U.S. nominal GDP and 10-year yield in tandem



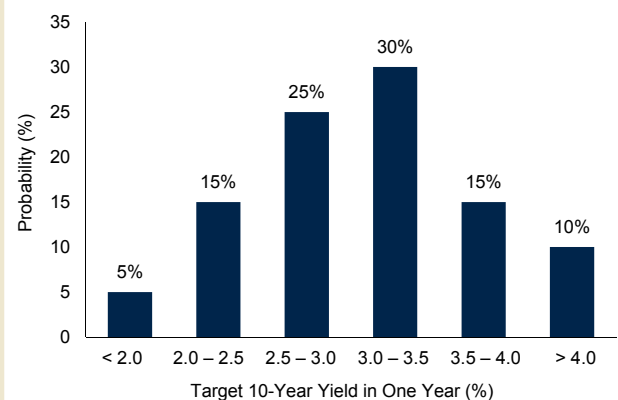
Note: 5-year moving average of year-over-year nominal GDP growth. Source: BEA, Haver Analytics, RBC GAM

Exhibit 33: Fewer high-quality sovereign bonds



Note: Sovereigns restricted to developed nations. Source: IMF, RBC GAM

Exhibit 34: U.S. 10-year yield scenarios



Source: RBC GAM

the most likely single zone for the U.S. 10-year yield will be 3.0% to 3.5%. But note that this doesn't make it strictly likely – the odds of this are a mere 30%. Combining several categories helps to give a clearer sense for the outlook. For instance, we think there is a better than 50% chance that yields will be at 3% or higher in a year's time. On the other hand, there is only a 20% chance that yields will be below 2.5%. As for more extreme scenarios, it is conceivable that yields are higher than 4% or less than 2%, but the combined probability is a mere 15%.

Investment implications

Today's bond investors cannot realistically expect to reap the same returns over the coming decades as they have over the past 30 years, benefiting as they did from outsized capital gains that arose from a unique transition from extremely high interest rates to extremely low ones. The initial phase of ultra-high interest rates stemmed from uncontrolled inflation and then Chairman Volcker's extreme measures to tame it. The concluding phase has been a period of ultra-low interest rates artificially depressed by a financial crisis and central bank bond buying. A more perfect tailwind can hardly be envisioned.

Absent this tailwind – and with a potential new headwind in the form of rising rates – does this mean that bonds should be shunned? Probably not.

First, bonds helpfully stabilize an investment portfolio: they are less volatile than equities, and when they do move, they frequently act like an insurance policy by rallying at the very moment that equities are falling.

Second, while rising yields impose an initial capital loss on a portfolio, this initial loss is ultimately offset by the higher coupon payments subsequently available. Bond investors who plan to stick around for the long term should actually celebrate the increase as they will benefit from the higher coupons for many years to come.

Bond strategies

Third, portfolio managers can employ several techniques to maximize a fixed income portfolio's return in a rising rate environment. As appropriate, they can tilt a portfolio's duration toward shorter-dated bonds, minimizing the initial damage of rising yields.¹¹ If they expect a flatter yield curve – a frequent side effect of rising rates – they may opt to pursue a barbell

strategy that underweights mid-dated bonds relative to other parts of the curve.¹²

Overweighting credit can be another important tool for shielding a portfolio from rising rates. Broadly, investments with juicier yields such as quasi-sovereigns, agencies, investment-grade credit, and high yield and emerging market bonds tend to outperform government bonds in this environment because of the way that the fatter coupons outweigh the capital loss associated with rising yields.¹³

Lastly, within the context of an investment portfolio or a balanced fund, one might choose to underweight the bond allocation, without forsaking it altogether.

Bottom line

To conclude, the sudden buoyancy in bond yields is mostly the result of a profound shift in U.S. monetary policy, which itself is an embodiment of normalizing economic conditions.

The precise path forward for yields is uncertain and will frequently be obscured by sawtoothed movements. But, beneath the surface, an upward vector remains likely as current policy expectations are validated, as growth continues to edge higher and (more abstractly) as artificially low real rates and term premiums emerge from the depths.

This process of rising rates has economic costs, but these are not devastating. Similarly, while investment portfolios will hardly celebrate rising bond yields in the short run, they may be more insulated than first imagined, and could ultimately come to appreciate higher yields over the long run.

¹¹ For this reason, low duration strategies can also be expected to perform reasonably well in a rising rate environment.

¹² There are myriad other techniques that fund managers can employ to good effect as well, such as positioning at a particularly steep point on the yield curve to generate an additional "roll down" effect over time.

¹³ Credit spreads also frequently narrow as an economy recovers, providing a further benefit to these types of investments.

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