

A Commentary by Harley Bassman

December 10, 2024

# "Hard Landing"



It ain't what you don't know that gets you in trouble. It's what you know for sure that just ain't so. Mark Twain 1835 - 1910

I have been relentlessly trash-talking those I refer to as "Team Transitory". These would be the financial bloviators who have insisted that inflation is transitory, and of course, the right trade is to own long-duration bonds (ouch).

I have been comfortable with my contrary UChicago Monetarist view that the Federal Reserve "printed" a haystack of money, and it only took a Fiscal helicopter tossing matches to set it ablaze into the greatest inflation since 1981.

But what if I am wrong ? What if the market was right only a few months ago when it expected a Fed Funds rate of 2.78% by the end of next year; and this rate back up is purely an ill-considered reaction to a political surprise.

# Today, I introduce a new Strategy to profit from lower rates.

### The Case for "Higher for Longer"

Most people ascribe the inflation (and rising -hongse line- interest rates) of the 1970s to the "Guns and Butter" fiscal spending of simultaneously funding the Vietnam War and the 1960's Great Society programs (such as Medicare).

In fact, the more likely culprit was the rapidly rising -lan se line- Labor Force as the Boomers (1946 – 1964) entered the economy. This huge Boomer cohort was <u>forming households and demanding goods</u> from the much smaller Greatest Generation (1901 – 1927) who were much depleted due to WW2 service.



I would propose that a similar Supply::Demand mismatch is now underway.



Source – Unless otherwise noted: The Bloomberg

The (prior page) -zise line- Household Formation did not collapse from 2007 to 2017 because young men were permanently camped out in Mom's basement playing video games; but rather because they simply chose to marry later.

Mothers in New York City deliver their first child at age 31, and at age 32 in San Francisco. This is much later than their Boomer parents.

This increase in Household Formation will be accompanied by <u>increasing demand</u> for homes, cars and baby carriages.

The small problem is that this demand is being sourced from <u>a shrinking work</u> <u>force of highly productive Boomers</u> who are -shiban line- retiring at a much faster rate than projected; almost certainly due to the asset inflation that resulted from the Fed's QE (Quantitative easing), aka, money printing.



Also contributing to the current "hot" economy has been [*Trigger warning*] the surge of immigrants, legal or otherwise. Recall that....

#### GDP = NUMBER OF WORKERS \* HOURS WORKED \* PRODUCTIVITY

Whether it has been 4 million or 20 million new immigrants, we should all agree that <u>an increase in the number of workers will increase GDP</u>. Moreover, I suspect the disconnect between the various employment statistics is the under count of undocumented laborers. Come on, do you actually believe an illegal alien is going to answer a knock on the door from a Government surveyor ?

# The Case for a "Hard Landing"

The *Peterson Institute for International Economics* has studied the impact of:

- 1) Policies of moderate and severe immigrant deportations; as well as
- 2) An increase in both broad and targeted Tariffs.

I am not going to deep dive into this study, nor opine as to the magnitudes offered; but what I will say is that the direction of the impact smells right.

Focusing upon the impact to the -moshui line- US economy, a deportation of 1.3mm "unauthorized" immigrants would slow annual GDP growth by a peak of 1.2% in 2028, while a more severe (and truth be told unlikely) deportation of 8.3mm would crush GDP by over 7%.



Further supporting the domestic link between the US economy and (labor) population, notice the -haiyang line- Global correlation between the working age population growth of a country and its GDP.



Focusing on the impact of Tariffs, Peterson models that a 10% across the board increase in tariffs would slow GDP by a bit more than 0.35%; while a targeted 60% tariff on China would add a headwind to US GDP of 0.20%.



It has been said of President-elect Trump to take him "seriously, but not literally"; so, I will not predict the path of his administration.

However, polices of deportations and Tariffs would likely exacerbate the deeply researched "economic riptide" offered by my friend and colleague <u>@profplum99</u> as substantially increasing the possibility of a much-anticipated "hard landing"; accompanied by <u>a significant decline of all interest rates</u>.

## Introducing the new "Bond Bull" Strategy

I have designed a new **NYSE-listed** Strategy to profit from lower interest rates.

This **Bond Bull** Strategy is simple in construction, and can be used to:

- 1) More efficiently add "duration" exposure to your portfolio;
- 2) Act as "hedge" for a "Hard Landing" that slashes interest rates;
- 3) Add "convexity" to offset the negative convexity of your portfolio.

#### **Strategy Profile:**

Each unit of the Strategy, initially priced at \$60 each, will own:

- 1) \$60 of short-term USTs (or similar high-quality assets);
- 2) A 7-year call option (March 2032 expiry) on \$1000 of 10yr maturity bonds. [The strike level will be equivalent to 3.25% on the UST 10yr bond]

The Strategy is **duration on steroids** with a "modeled" parallel shift duration of about 43 years (2.60x the UST 30yr). This long-dated option has a low "theta", and initially offers a <u>modeled one-year return static return of positive 2.0%</u>.

Below is a "modeled profile" of one **Bond Bull** Strategy unit (\$60), and a similar dollar investment in the UST 30yr and the Zero-coupon UST maturing in 2054.

I assume parallel shifts of all interest rates and a fixed level of Implied Volatility.

The -tiankong line- is the price of the **Bond Bull** for an instantaneous rate shift; The -haizao line- is similar for a \$60 investment in the UST 30yr; The -juzi line- is similar for a \$60 investment in the Zero-coupon bond.

The modeled **Duration** for each is **43.0**, **16.7** and **29.4** years respectively.

Below each line is the total return of each. Notice the **Convexity**, which is the relative up versus down return.

For the Bond Bull Strategy, the -50bp rate decline produces a +24.8% return while the +50bp rate increase produces a -18.2% loss. A relative up versus down positive Convexity of +6.6% (24.8 minus 18.2).

Convexities for the 30yr and Zero-coupon are +1.0% and +2.2% respectively. *[Note: A negative differential would indicate negative Convexity.]* 

Finally, the -yingsu lines- below are the return profiles of the Strategy versus the UST 30yr and the Zero-coupon. The -huayecai shaded- 100bp bond rally versus the -putaojiu shaded- +100bp bond decline highlight the value proposition.

The combination of a **longer Duration** plus much **greater Convexity** allows the <u>Bond Bull to significantly outperform</u> these more standard bond investments.

					Rate Shift						
	200	150	<u>100</u>	<u>50</u>	٥	<u>-50</u>	<u>-100</u>	<u>-150</u>	-200	-250	-300
Bond Bull [instant shift] % Return	\$32.44 -45.9%	\$36.03 -40.0%	\$41.37 -31.1%	\$49.11 -18.2%	\$60.00 0.0%	\$74.88 24.8%	\$94.61 57.7%	\$120.05 100.1%	\$152.03 153.4%	\$191.29 218.8%	\$238.49 297.5%
<b>UST 30yr [instant shift]</b> % Return	\$43.99 - <b>26.7%</b>	\$47.33 -21.1%	\$51.07 - <b>1</b> 4.9%	\$55.28 - <b>7.9%</b>	\$60.00 0.0%	\$65.32 8.9%	\$71.32 18.9%	\$78.09 30.2%	\$85.76 42.9%	\$94.46 <b>57.4%</b>	\$104.35 73.9%
Bond Bull vs UST 30yr	-19.2%	-18.8%	-16.2%	-10.3%	0.0%	15.9%	38.8%	69.9%	110.4%	161.4%	223.6%
Zero coupon [instant shift] % Return	\$33.48 - <b>44.2%</b>	\$38.72 -35.5%	\$44.77 -25.4%	\$51.83 -13.6%	\$60.00 0.0%	\$69.49 15.8%	\$80.52 34.2%	\$93.31 55.5%	\$108.17 80.3%	\$125.47 109.1%	\$145.57 142.6%
Bond Bull vs Zero coupon	-1.7%	-4.5%	-5.7%	-4.5%	0.0%	9.0%	23.5%	44.6%	73.1%	109.7%	154.9%

Let me reinforce that this is a "modeled" performance profile that assumes parallel rate shifts and a constant level of Implied Volatility, which is unlikely. Nonetheless, this is the standard Wall Street profile to begin the discussion of relative value. This next table is identical to the prior, except I have <u>rolled the calendar forward</u> <u>by one year</u>. So, the "base case" returns of 2.0%, 4.3% and 4.2% respectively are the yields (net income) one would earn if all risk vectors were unchanged.

					Rate Shift						
Bond Bull [1yr forward] % Return	200 \$35.49 -40.8%	<u>150</u> \$38.60 -35.7%	<u>100</u> \$43.45 -27.6%	<u>50</u> \$50.73 -15.5%	<u>0</u> \$61.22 2.0%	<u>-50</u> \$75.80 26.3%	<u>-100</u> \$95.33 58.9%	<u>-150</u> \$120.65 101.1%	<u>-200</u> \$152.54 154.2%	<u>-250</u> \$191.63 219.4%	<u>-300</u> \$238.45 297.4%
<b>UST 30yr [1yr Forward]</b> % Return	\$46.59 -22.4%	\$49.93 - <b>16.8%</b>	\$53.67 - <b>10.5%</b>	\$57.88 -3.5%	\$62.60 4.3%	\$67.92 13.2%	\$73.92 23.2%	\$80.69 34.5%	\$88.37 47.3%	\$97.07 61.8%	\$106.95 78.2%
Bond Bull vs UST 30yr	-18.5%	-18.9%	-17.0%	-11.9%	-2.3%	13.1%	35.7%	66.6%	107.0%	157.6%	219.2%
Zero coupon [1yr forward] % Return	\$35.58 -40.7%	\$40.95 -31.8%	\$47.14 -21.4%	\$54.26 -9.6%	\$62.52 4.2%	\$72.07 20.1%	\$83.08 38.5%	\$95.81 59.7%	\$110.53 84.2%	\$127.57 112.6%	\$147.27 145.4%
Bond Bull vs Zero coupon	-0.1%	-3.9%	-6.2%	-5.9%	-2.2%	6.2%	20.4%	41.4%	70.0%	106.8%	152.0%

# How to use the Bond Bull Strategy

A "tactical" hard landing **Hedge**:

With a rate sensitivity of 2.6 times the 30yr UST, the Strategy offers those who fear a "hard landing" (that would lead to a quick and significant interest rate decline) access to duration in a **listed and liquid** manner.

A "strategic" **Capital efficient** manner to access Duration:

The -xiu line- below is the dollar price of one share of the hugely popular UST +20-year ETF and its return profile for an instant shift in interest rates.

Below that is the profile for the purchase of 1000 shares (\$94,440); underneath is the dollar profit::loss for this investment. The -lanmei line- is the profit::loss of purchasing 625 units of the Bond Bull Strategy (\$37,500).

					Rate Shift						
Large 20yr ETF [instant shift] % Return	200 \$68.95 -27.0%	<b>150</b> \$74.33 -21.3%	<u>100</u> \$80.32 -15.0%	<u>50</u> \$86.99 -7.9%	2 \$94.44 0.0%	<u>-50</u> \$102.75 8.8%	<u>-100</u> \$112.05 18.6%	<u>-150</u> \$122.47 29.7%	<u>-200</u> \$134.15 42.0%	<u>-250</u> \$147.26 55.9%	<u>-300</u> \$162.01 71.5%
Large 20yr ETF [1000 units] \$ Profit / Loss	<b>\$68,950</b> (\$25,490)	<b>\$74,330</b> (\$20,110)	<b>\$80,320</b> (\$14,120)	<b>\$86,990</b> (\$7,450)	<b>\$94,440</b> \$0	<b>\$102,750</b> \$8,310	<b>\$112,050</b> \$17,610	<b>\$122,470</b> <b>\$</b> 28,030	<b>\$134,150</b> \$39,710	<b>\$147,260</b> \$52,820	<b>\$162,010</b> <b>\$</b> 67,570
Bond Bull [625 units] \$ Profit / Loss	<b>\$20,276</b> (\$17,224)	<b>\$22,518</b> (\$14,983)	\$25,856 (\$11,644)	<b>\$30,693</b> (\$6,807)	\$37,500 \$0	<b>\$46,800</b> \$9,300	<b>\$59,131</b> \$21,631	<b>\$75,033</b> <b>\$</b> 37,533	<b>\$95,019</b> <b>\$</b> 57,519	\$119,555 \$82,055	<b>\$149,059</b> <b>\$111,</b> 559
\$\$ Advantage	\$8,266	\$5,128	\$2,476	\$643	\$0	\$990	\$4,021	\$9,503	\$17,809	\$29,235	\$43,989

The money shot here is the -meiyuan line- across the board advantage of the Bond Bull Strategy vs the UST +20-year ETF. For an investment of only 40% of the size, one can realize a uniformly superior (modeled) performance; and the 60% conserved can be allocated to other profitable ventures.

Add **Convexity** to your negatively convex portfolio:

While analyzing Convexity is beyond the scope of this Commentary, <u>it is likely</u> <u>your fixed-income (Bond) allocation is negatively convex</u>. With the exception of US Treasuries, most other bond investments are negatively convex.

Most bonds have **Credit** risk, i.e., the risk they can default. Investment Grade bonds (IG) offer a small advantage to USTs since it is unlikely they will default; in contrast, High Yield (HY / Junk) bonds offer a larger spread since a default is more likely. In both cases, <u>one is analytically short a default option</u>.

Municipals bonds also have credit risk, although it's usually quite small. However, most long-maturity Municipal bonds are "callable" which makes them negatively convex.

And, of course, Mortgage-backed Securities (MBS) have significant negative convexity since the homeowner always has the right to refinance.

In all these cases, this Strategy can add significant positive Convexity to an investment portfolio to offset the underperformance if volatility increases.

Create superior Synthetic portfolios:

Instead of \$1000 invested into an Aggregate bond fund, mix the Bond Bull Strategy with other fixed-income assets to attain a superior return profile.

Aggregate Bond ETF	Price \$99.33	Investment \$1,000	<u>Yield</u> 4.84%	Duration 6.2
AAA CLO ETF Bond Bull	\$50.75 \$60.00	\$875 \$125	6.38%	1.0
Synthetic Portfolio	φου.ου	\$1,000	5.84%	6.2
		Investment	Yield	Duration
Aggregate Bond ETF	\$99.33	\$1,000	4.84%	6.2
High Yield (Junk) ETF	\$79.90	\$900	7.08%	3.3
Bond Bull	\$60.00	\$100	2.04%	43.0
Synthetic Portfolio		\$1,000	6.58%	7.3

# **Closing Comments**

Markets rarely trade at "fair value" (which imbues cognitive dissonance to a UChicago graduate). Rather prices blow past such levels carried on the winds of human emotion. Three months ago, the -caopi column- market priced the December 2025 Fed Rate at 2.78%. Presently it is -xue column- priced at 3.69%; both at variance from the Fed's DOTs projection of 3.50%.

	9/17/24		12/6/24	Anticipated
Spot Rate	5.38%		4.63%	Reductions
		Difference		
24-Dec	4.37%	0.12%	4.49%	0.14%
25-Jan	4.11%	0.25%	4.36%	0.27%
25-Feb	3.77%	0.52%	4.29%	0.35%
25-Mar	3.64%	0.59%	4.22%	0.41%
25-Apr	3.43%	0.70%	4.12%	0.51%
25-May	3.25%	0.80%	4.05%	0.58%
25-Jun	3.13%	0.86%	3.98%	0.65%
25-Jul	3.02%	0.89%	3.90%	0.73%
25-Aug	2.92%	0.92%	3.84%	0.79%
25-Sep	2.89%	0.92%	3.81%	0.82%
25-Oct	2.84%	0.92%	3.76%	0.87%
25-Nov	2.80%	0.92%	3.72%	0.91%
25-Dec	2.78%	0.91%	3.69%	0.94%
		Source – T	he CME and I	Bloomberg

#### **Fed Funds Futures Projections**

As a charter member of "higher for longer", I tend to think we are in the right zip code. I think "fair value" for the UST 10yr is 4.35%, which is the 35-year historical spread of +147bps over the Fed's terminal DOTs of 2.88%.

The Bond Bull is the **"151 proof" of duration assets**; a <u>15%-dollar allocation</u> will match the duration of the Aggregate Bond Index. And its massive **positive convexity** will improve most investment profiles if markets become violently dislocated, a feature not a bug of this new administration.

For Hedgers, one should use the **Bond Bull** not because you know rates will decline, but rather because you are bearish, and might be wrong.

Remember: For most investments, sizing is more important than entry level.

Harley S. Bassman December 10, 2024

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Your comments are always welcome at: <u>harley@bassman.net</u> If you would like to be added to my distribution, just ping me. To become better educated on macro-economic fundamentals and policy, I urge you to connect with my partner, Michael Green, better known as <u>@profplum99</u>.

**Special Coda:** Some of the ideas I suggest can be particularly complex via the use of futures contracts and options embedded into Strategies for leverage and/or convexity that is both clever and tricky. I urge you to ping my associates who are waiting for your call to detail these strategies more fully.

For reference literature on the financial markets - particularly about options and derivatives - I will immodestly direct you to my educational archive at:

#### http://www.convexitymaven.com/themavensclassroom.html

If you still have kids in the house, please take a vacation that is more interesting than the Four Seasons, Costa Rica – life is not a dress rehearsal. Turn off the Crackberry (did I just date myself ?) and explore with the family. You don't need to break the bank, rent an RV and see the U.S. We traveled with our four kids on five incredible RV trips.

#### http://bassman.net

#### Special credit to Gerard Minack, the best macro analyst on the planet.

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