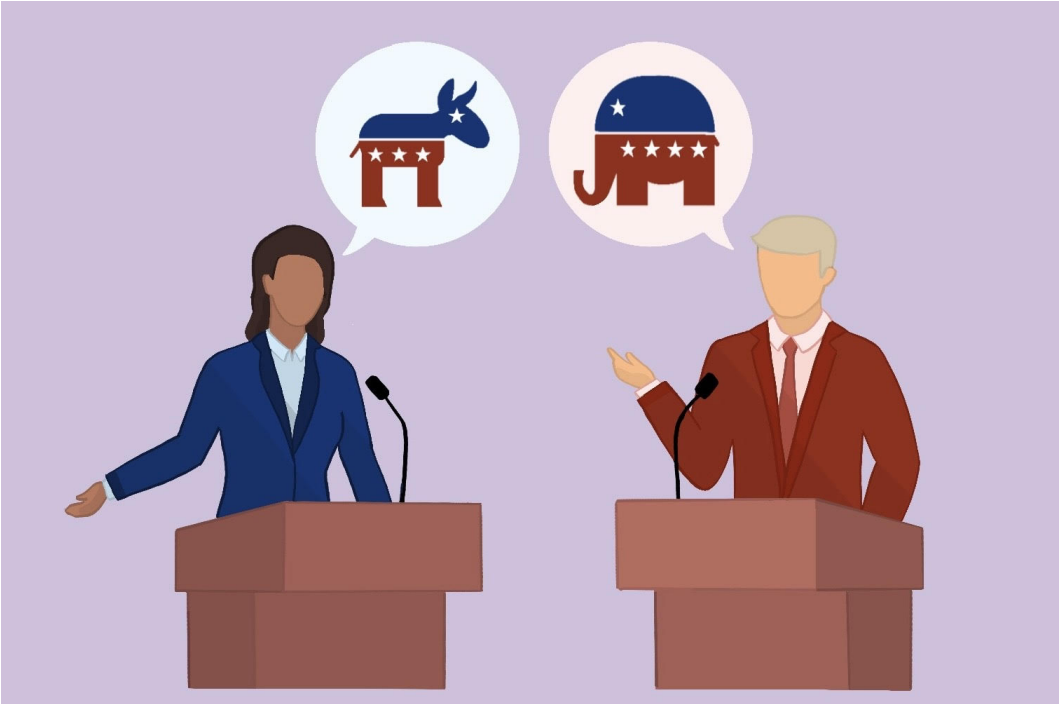
The Convexity Maven

A Commentary by Harley Bassman

October 22, 2024

"2024 Election Special"



Every significant moment in our ~~Vulcan mind-meld in a blue-pilled Matrix jelly bath~~ social-media linked society is touted as the "most important" or "most consequential" or "most surprising" of our lifetimes.

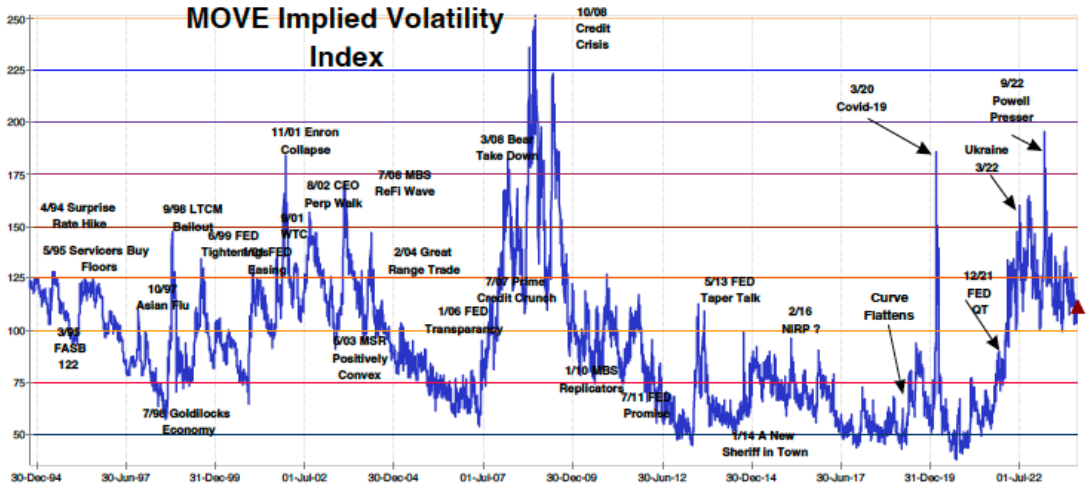
My general reply to such self-aggrandizing hogwash is:

"It is never different this time."

That said, as gleaned from interest rate option prices, bond market participants believe the range of outcomes for this general election is much wider than all other elections for which we have records (1988). In fact, I can find only one other instance of similar "date specific" uncertainty, and that was literally in anticipation of a multi-national War.

The -khechol line- MOVE Index was created to tap into the prices for bond options to tease out the market's collective opinion of the near-term risk.

This fact is revealed by the name I chose: "Merrill's Option Volatility Estimate"



Source – Credit Suisse LOCUS

Unlike many indices, the MOVE is a real number; it is the annualized Implied Volatility for **one-month options** across the Yield Curve.

A MOVE of 100 means that there is a 68% probability that one year from now interest rates will close within 100bps of today's rate. So, in this example, if the current ten-year rate is 4.10%, there is a 68% chance it will settle between 3.10% and 5.10%. [*For propeller heads, this is one standard deviation.]*

Taken a step further, a similar estimate can be determined for a one-day rate change by dividing the MOVE by 15.9. Here, a MOVE of 100 would imply a one-day rate change of about 6.3bps; this is often referred to as the "daily breakeven".

[*For propeller heads, 15.9 is the square root of 252, which is the number of trading days per year.*]

What is truly nifty is that with only the skills attained from your 9th grade statistics class, one can use the various levels of the MOVE Index to tease out the market's anticipated risk profile.

Hang tight, I will make this (somewhat) easy…..

The MOVE is a rolling calculation, where the option expiration date changes every day with the calendar. If today's date is October 1st, the one-month expiry option will be November 1st. If today's date is October 2nd, the one-month expiry option should expire on November 2nd. However, if the 2nd is a Saturday, then the expiry will roll to Monday, the 4th.

As such, a one-month option is not always 30-days.

A related technicality, that was strangely ignored for quite a while, was the recognition that markets do not trade on weekends or holidays.

When a one-month option expires on a Friday, the next one-month period will jump to the following Monday. So, although only one more "business day" is added, three additional "calendar days" will be registered.

While this all seems obvious now, there were a number of years where some option dealers using **Calendar Days** would pay too much for options that expired on a Monday and sell options that expired on a Friday too cheaply. (They were eventually fired after they accrued significant losses.)

As a digression, let me tell you about how the Japanese banks, being too clever by half, used to ask Wall Street to bid on options that expired on Monday in Tokyo time, which was Sunday night in New York City. The idea was to pick off the jet-lagged interns we sent to Japan for training who would price options on their calculators using a Tokyo expiration, and thus add two extra (worthless) days to a Calendar Day model pricing system.

I solved this problem by instructing my traders to price those Monday Tokyo time options to expire Friday, New York time. Tiring of such "by hand" adjustments, Wall Street eventually moved to a US **Business Day** pricing system.

The most sophisticated option traders soon recognized that even within a business day framework, some days were historically more volatile. Clearly the Friday after Thanksgiving is not as volatile as the day of an FOMC meeting.

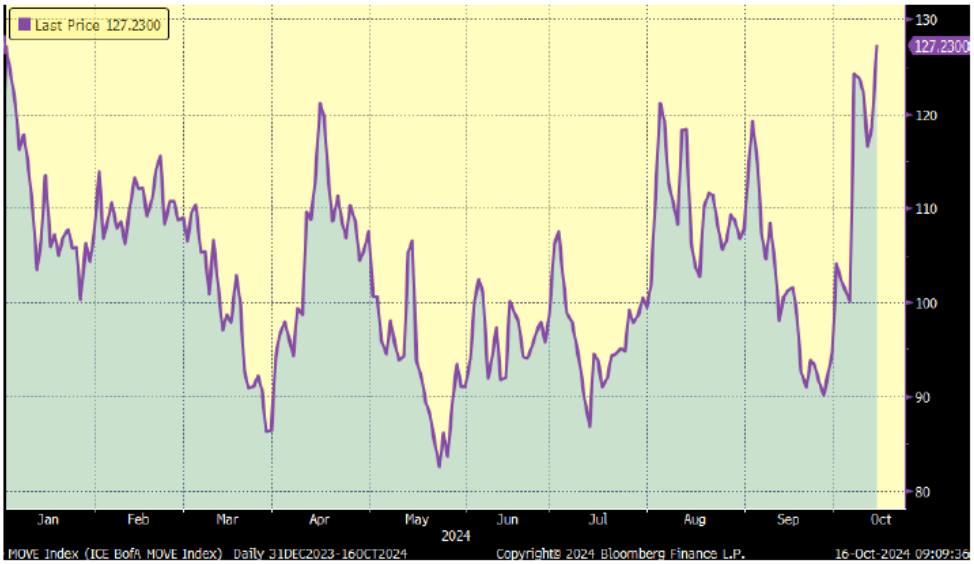
The Wall Street standard is now an **Event Day** Model. While a one-month option still expires in one month, each day is given a different risk weighting to properly price and manage the days that are more uncertain.

This is a long-winded explanation that "all days are not created equal", and that risk managers need to carefully consider their risk profiles ahead of days that are known to offer significant volatility.

Fortunately, markets are now much more efficient, and transparent.

The MOVE Index closed at near 100 on Friday, October 4th. And on that date, the standard one-month expiry date was Monday, November 4th. The next day was Monday, October 7th, and the standard one-month date rolled to Thursday, November 7th, which now included the November 5th general US election.

With the simple shift of the calendar, the -sagol line- MOVE jumped to 124.



Source – Unless otherwise noted: The Bloomberg

Let's deconstruct with a simplistic (technically incorrect) example.

A five-day option with a volatility of 100 could be modeled as:
100+100+100+100+100 = 500 divided by 5 days >>> 100

A five-day option with a volatility of 125 could be modeled as:
125+125+125+125+125 = 625 divided by 5 days >>> 125

Alternatively, a five-day option with a volatility of 125 could be modeled as:
100+100+100+100+225 = 625 divided by 5 days >>> 125

While not quite right, this is how a single "Event Day" can change the entire Index level; and how we can reverse engineer to calculate an Event Date.

Using the proper calculations, **the market is pricing an 18bps rate movement** (either direction) on the days immediately after the election.

This is the largest Event Day I can recall over my career. While there have been plenty of periods of extremely high Implied (and actual) Volatility such as the Great Financial Crisis or COVID; to paraphrase Don Rumsfeld, those were not "known unknowns" that could be considered in advance.

Circling back to the preamble, partisans always suggest that their election is the most consequential, but a quick review of the ten -adom/khechol line- general elections since 1988 indicates this one can be the most impactful.

The first column is the MOVE Index on the day before the election fell into the one-month expiry window; and the second column is the MOVE Index after the election event was first included.

While the MOVE usually increases, this year's election has shown the largest increase with the most "event" value.

MOVE Index

	Without Election	With election				
November 8, 1988	103.36	105.98	2.53%	Bush 1	*over*	Dukakis
November 3, 1992	115.86	126.1	8.84%	B Clinton	*over*	Bush 1
November 5, 1996	117.81	133.5	13.32%	B Clinton	*over*	Dole
November 7, 2000	79.23	80.03	1.01%	Bush 2	*over*	Gore
November 2, 2004	93.08	90.76	-2.49%	Bush 2	*over*	Kerry
November 4, 2008	204.8	217.3	6.10%	Obama	*over*	McCain
November 6, 2012	60.4	59.3	-1.82%	Obama	*over*	Romney
November 8, 2016	62.8	63.95	1.83%	Trump	*over*	H Clinton
November 3, 2020	39.97	57.75	44.48%	Biden	*over*	Trump
November 5, 2024	100.15	124.23	24.04%	???	*over*	???

Don't be fooled by the strangely large percentage increase in 2020; there the change was distorted by a starting level near the record low registered as the FED pressured the market via ZIRP (zero interest rate policy) and QE (quantitative easing).

Despite that being a large percentage increase, the "event day" calculation resulted in a relatively small absolute level of rate volatility.

Also interesting is the 2008 election cycle. This is a case of asking a drowning man what he wants for dinner; he is slightly too distracted to care.

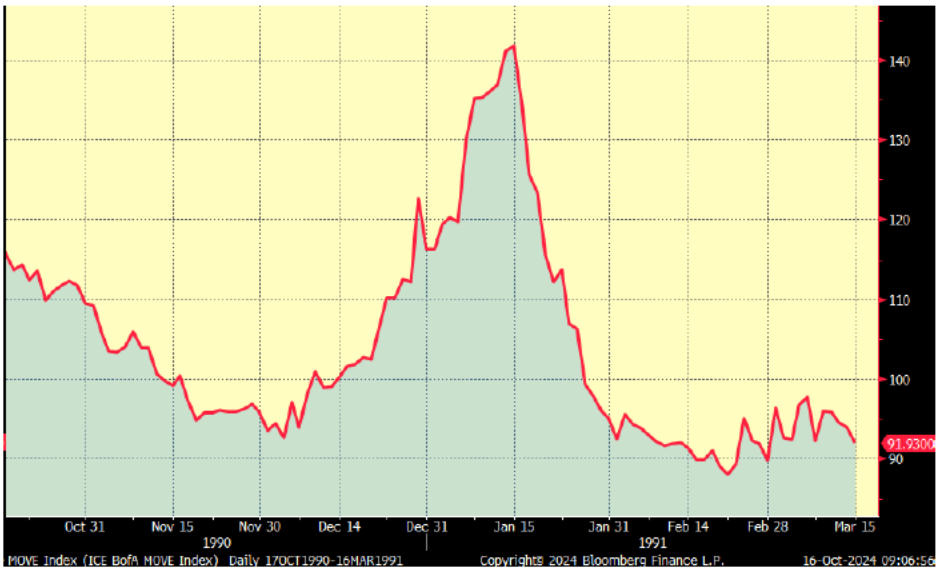
The months around the GFC was the highest recorded period of volatility with the MOVE touching 262, this exceeded Black Monday in October 1987 when a MOVE proxy peaked at 246.

Option trading was illiquid as a possible collapse of the US financial system was more front of mind than the election. The MOVE captured the zeitgeist of the time, but not the specificity. This is noise at best.

While I will repeat that is "it never different this time", **it is curious that the all-time peak and trough of the MOVE both occurred around elections**.

Scratching the soft spot of my brain, there was only one other time that was similar to the current "known unknown" risk profile.

The -vered line- is the MOVE Index just before and after the 1991 Gulf War. Most of you are too young to recall, but in late 1990 Saddam Hussain invaded Kuwait to take over their oil fields.



This bothered President George H. W. Bush who insisted that Mr. Hussain pack up his tanks and go home. When he did not, via a U.N. mandate President Bush built a large coalition to expel Mr. Hussain and gave him a fixed-date ultimatum of January 15, 1991.

That is the definition of a Rumsfeld-style "known unknown". We know of the specific risk in advance, but not the ultimate outcome. This is why the MOVE (and the VIX) tend to rise into the employment report.

The prelude to the Gulf War was not initially an "event day" since the market did not know in advance when the date would be set, just that it would be coming. This is why the MOVE rose slowly in the beginning, and then jumped once the threatened invasion date was set.

The MOVE collapsed soon after; this was a the real - "Mission Accomplished"

Note to propeller heads; you can use this formula for the actual math:
https://support.spotgamma.com/hc/en-us/articles/15249178424595-Forward-Implied-Volatility

Concluding Thoughts

In my prior Commentary, "Forests and Trees", I noted the absurdity of the market pricing in a -yarok column- September 2025 Fed Funds rate of 2.89%.

Fed Funds Futures Projections

	9/17/24	10/18/24	
	5.38%	4.83%	
			Anticipated Reductions
24-Sep	5.17%		
24-Oct	4.93%	4.83%	0.00%
24-Nov	4.63%	4.65%	0.18%
24-Dec	4.37%	4.52%	0.32%
25-Jan	4.11%	4.38%	0.45%
25-Feb	3.77%	4.21%	0.62%
25-Mar	3.64%	4.12%	0.71%
25-Apr	3.43%	3.97%	0.86%
25-May	3.25%	3.84%	0.99%
25-Jun	3.13%	3.74%	1.10%
25-Jul	3.02%	3.63%	1.20%
25-Aug	2.92%	3.54%	1.30%
25-Sep	**2.89%**	**3.50%**	**1.34%**

Source – The CME and Bloomberg

After a glowing hot Employment report, the -yain column- market retraced over 60bps of rate cuts to now sit on top the Fed's DOTs. Anticipated rate reductions -michmesh column- now barely include two 25bp cuts by Christmas.

What this all means is that without an economic "crash landing", **the interest rate market is on a flight path back to normalcy**.

From 1990 to 2010 (the period before the GFC), the spread between the Federal Funds rate and the US 10yr rate averaged 160bps. For the entire the thirty-five-year period of 1990 to 2024 this spread averaged 143bp.

Relative to the FED's longer run (DOTs) projection of 2.88%, the current 10yr at 4.09% is not too distant from my projected "normal rate" of 4.25% to 4.50%.

Newly issued MBS yield 5.41% or +132bp to the 10yr. This is still the "wrong price" versus its long-term average of +75bp. My good friend @profplum99 is forecasting an economic crash landing; if not, **my NYSE-listed MBS Strategy is still the best risk-adjusted investment in bond land**.

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

Harley S. Bassman
October 22, 2024

Follow me on Twitter: **@ConvexityMaven**

Your comments are always welcome at: harley@bassman.net
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 @profplum99.

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.