

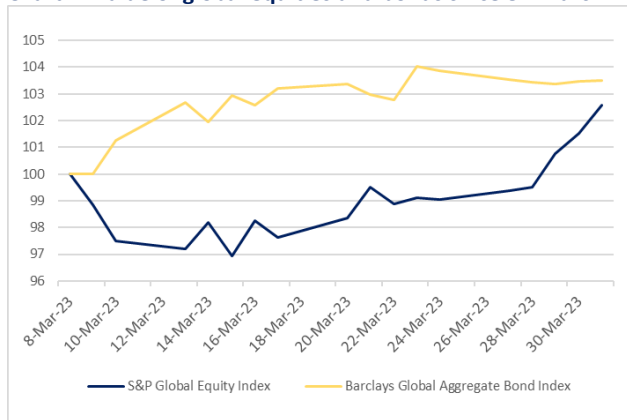


**“You think you understand ‘one’, you must also understand ‘two’, because one and one makes two. But you must also understand ‘and’” – Rumi**

This 12<sup>th</sup> century mystic poet may well have written the above quote on behalf of the uncanny Mr. Market, “the wisdom of crowds<sup>1</sup>”, because who could have conceived that amid a banking crisis, the aggregate value of financial assets will increase (Chart 1).

As two US large regional banks and an EU GSIB failed, the fear of contagion not only propelled Central Banks to take prompt action but also helped ease the perceived risk of policy overtightening. Heads I win, tails I win moment for financial markets?

**Chart 1: Value of global equities and bonds since 8<sup>th</sup> March.**



Source: Bloomberg.

Consider this as a thought experiment: If one had gone to sleep on the 8<sup>th</sup> and woken up on the 31<sup>st</sup> of march, one would not have guessed that it was a month of large bank failures. In March, global equities were up, equity volatility went down, US credit risk premiums were roughly flat, nominal & real bond yields were down, and yield curve steepened (Table 1).

**Table 1: Global financial markets [green = improvement, red = deterioration].**

	Indicator	Dec-22	Jan-23	Feb-23	Mar-23	March	YTD
Equities	S&P 500	3840	4077	3970	4109	3.50%	7.02%
	NASDAQ	10466	11585	11456	12221	6.68%	16.8%
	DOWJONES	33147	34086	32565	32274	-0.89%	-2.63%
	STOXX 600	425	453	461	458	-0.72%	7.75%
	HANG SENG	19781	21842	19759	20400	3.24%	3.13%
	US Equity Volatility	21.7	19.4	20.7	18.7	-9.66%	-13.7%
Credit	US Rates Volatility	121.6	99.5	123.6	135.9	9.95%	11.75%
	US HY Spread	4.30%	4.29%	4.22%	4.63%	0.41%	0.33%
	US CCC Spread	11.57%	10.44%	10.10%	11.36%	1.26%	-0.21%
	US HY bonds	73.6	76.3	74.5	75.6	1.37%	2.61%
	EU HY Spread	4.98%	4.41%	4.21%	4.77%	0.56%	-0.21%
	EU HY bonds	89.7	91.8	91.4	90.1	-1.36%	0.52%
Rates	2yr US Yield	4.42%	4.20%	4.81%	4.03%	-0.78%	-0.39%
	10yr US Yield	3.87%	3.51%	3.92%	3.47%	-0.45%	-0.40%
	10-2 US Curve	-0.55%	-0.69%	-0.89%	-0.56%	0.33%	-0.01%
	10yr US Real Yield	1.36%	1.29%	1.41%	1.16%	-0.25%	-0.20%
	10 yr German Bund	2.57%	2.29%	2.65%	2.29%	-0.36%	-0.28%
10yr Italian Bond	4.72%	4.16%	4.48%	4.10%	-0.38%	-0.62%	

Source: Bloomberg.

On the other hand, if one had looked under the hood, one would have fathomed the gravity of the situation – the extreme volatility in interest rates along with a blood bath in US banks’ stocks and EU banks’ AT1 securities – and rightly so, questioned the rally in financial markets.

In short, whether it was an “all’s well that ends well” or a “wishful” episode for financial markets, only time will tell, though for now Mr. Market seems inclined towards the former.

With this backdrop in mind, in our latest market insights:

- First, we try to evaluate the 1Q23 price action and the signal from Mr. Market.
- Then, we estimate whether Mr. Market is offering enough return for the risk that it may be giving.
- Furthermore, we highlight that the conventional wisdom that large US banks are undercapitalized vs large EU banks could be a regulatory myth.
- Finally, we provide investors with an alternative yet simple framework to assess the complex nature of EU banks AT1 securities.

### Price action and market signal

Reading the market tea leaves is always an elusive exercise, but to eke out signal from noise, we think that market price action in 1Q23 could be divided into three phases (Table 2).

**Jan to early Feb:** a broad rally in equities, with a strong breadth led by cyclical and growth stocks, amid range bound bond yields and inflation break-evens even as global economic growth was rebounding.

**Mid Feb to early Mar:** a broad correction in equities and bonds amid rising interest rates and inflation break-evens even as global economic growth remained buoyant.

**Mid Mar to end Mar:** an abrupt selloff in equities and rally in bonds amid collapse in interest rates and inflation break-evens due to fears of a banking contagion. Then a prompt recovery in equities, with a narrow breadth led by mega-cap growth and defensive stocks, and inflation break-evens due to a timely policy response and hope for a policy pivot.

**Table 2: S&P and Global equities sector % returns in 1Q23.**

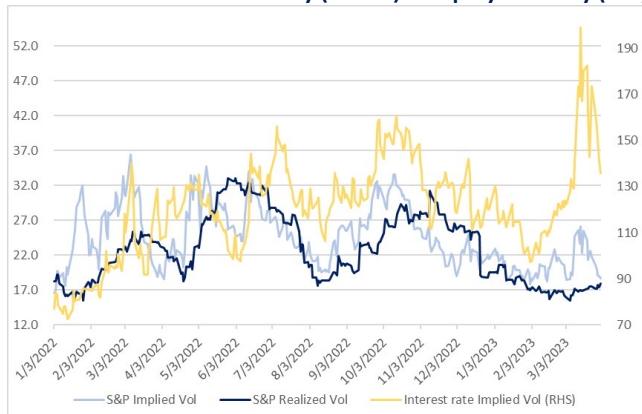
Index	Jan to mid Feb	Mid Feb to early Mar	Early Mar to end Mar	1Q23
S&P 500 Index	8.2	-2.3	1.6	7.5
S&P 500 Ex Tech	5.4	-2.4	-0.7	2.1
S&P Global 1200 Index	8.1	-1.7	1.3	7.7
S&P Global Technology	15.8	-2.2	7.0	21.2
S&P Global Communication	13.8	-2.2	5.7	17.6
S&P Global Discretionary	15.7	-3.7	3.1	14.9
S&P Global Materials	7.0	-0.1	-0.6	6.2
S&P Global Industrials	6.8	0.6	-0.4	7.0
S&P Global Staples	0.4	-1.0	4.1	3.5
S&P Global Utilities	-1.1	-1.9	3.7	0.6
S&P Global Healthcare	-1.5	-2.3	2.1	-1.8
S&P Global Energy	3.1	-1.0	-5.0	-3.1
S&P Global Financials	8.0	-1.0	-8.1	-1.8
S&P Global Real Estate	8.2	-3.4	-3.1	1.2

Source: S&P, Bloomberg.

<sup>1</sup>The wisdom of the crowd theory proposes that the collective opinion of a diverse independent group of individuals is more accurate than that of a single expert.

In transition from phase 1 to phase 3, there are three key takeaways: i) relatively low equity volatility even as interest rates volatility spiked towards historic highs (Chart 2) ii) outperformance of mega-cap tech stocks (Table 2) and iii) rotation from macro sensitive stocks such as financials, industrials, energy, materials etc. to defensive stocks such as staples, healthcare, and utilities (Table 2).

**Chart 2: Interest rate volatility (MOVE) vs equity volatility (VIX)**

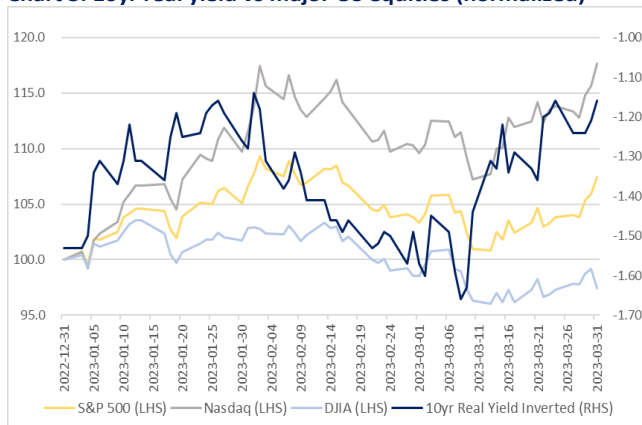


Source: Bloomberg.

One plausible explanation is that the equity market is signaling a switch in the economic growth outlook, from a strong one in the early part of the year to a very weak one in the future, but not a total collapse, hence rise in overall equity in the month of March along with rotation to mega-cap growth and defensive stocks.

This signal from equity market could be reconciled from the price action in the bond market where, as of 31<sup>st</sup> March real, bond yield has fallen materially below but inflation 2yr break-evens<sup>2</sup> remain above their Dec-2022 levels, signaling that the downward shift in yield curve might just be enough to keep the economy afloat, hence the normalization in inflation break-evens but not a total collapse.

**Chart 3: 10yr real yield vs major US equities (normalized)**



Source: Bloomberg.

The other plausible explanation, touted by a bearish sell-side equity strategist of a bulge bracket US Investment Bank, is that one can't make much of the recent price action in the US equity market from a fundamental lens. Instead, his assessment is that bulls are misreading the announcement of bank term funding program (BTFP) by FED as Quantitative Easing (QE) and using this as an excuse to bid up equities.

<sup>2</sup>Bond market expectation on future inflation.

We agree to his point that BTFP is not QE: BTFP adds new liquidity to the banking system only in the shape of bank reserves and does not create any new deposits, unlike QE which creates both bank reserves for banks and bank deposits for non-banks, and these deposits then often make their way into financial markets bidding up asset prices. In short, BTFP is meant to stop the destruction of banking system whereas QE is meant to inflate financial asset prices.

However, we are not sure if that's the only reason – misreading of BTFP as QE – for this recent price action in equities. Perhaps the truth lies somewhere in the middle of these two plausible explanations, considering the narrow breadth of the March rally.

So, was this mini banking crisis an “all's well that ends well” or a “wishful” episode for financial markets?

Time will tell!

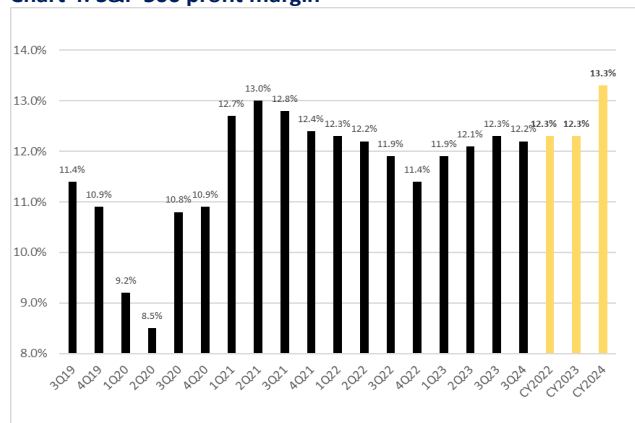
**Mr. Market: Return vs Risk**

If we look at bottom-up EPS estimates for S&P 500 (the global barometer of risk), analysts expect EPS growth and margin improvement from 2H23 followed by 12% EPS growth in 2024. This would translate into a 2019-2024 EPS CAGR of 8.7%, compared to 2014-2019 EPS CAGR of 6.5%.

The key takeaway here is that while Covid turbo charged 2021 EPS growth and margins, operating leverage is estimated to have hit a permanent plateau which is expected to accelerate EPS growth in 2024.

Meanwhile the big picture is that the current S&P valuation of > 18x P/E may be expensive compared to history but not necessarily if S&P is able to increase profit margins as expected.

**Chart 4: S&P 500 profit margin**



Source: FactSet.

The key question then is whether investors should expect more of the same for earnings growth going forward given high interest rates, de-globalization, and tight labor markets along with an inverted yield curve? Nobody has a crystal ball; hence we turn to the equity risk premium i.e., adequate compensation should profit, and payouts decline.

There are no easy answers because for bonds risk is explicit i.e., the difference between yield-to-maturity and risk-free rate, but for equities it's implicit i.e., a function of variable

profits, including their growth and decline, over both the near and long term. That said, we see two plausible ways to estimate the equity risk premium.

First, the FED model (earnings yield minus bond yield). While this model has been successful as a descriptive tool for how investors choose to set P/E in short run, it has some shortcomings e.g., bond yield is nominal whereas earnings yield is more of a real number (according to Ibbotson, inflation pass-through of S&P 500 from 1951-2001 was more than 90%). Therefore, we use a more refined version i.e., earnings yield minus real bond yield.

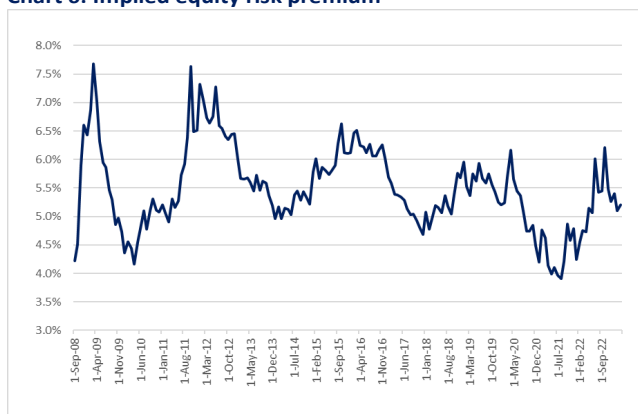
**Chart 5: FED Model (adjusted) risk premium.**



Source: Bloomberg, Farro estimates.

Second, the implied equity risk premium, set forth by the guru of finance “Damodaran”. Implied equity risk premium is estimated by using the current price of Index, consensus EPS estimates, total payout (cash + buybacks) and current 10yr US gov't bond yield. Put differently, it’s analogous to the credit spread of a bond (YTM less risk-free rate) but incorporates growth element of equities.

**Chart 6: Implied equity risk premium**



Source: Damodaran, Farro estimates.

Both earnings less real bond yield and implied equity risk premium suggest that, given the macro uncertainty, a lot of possible good news seem to be priced-in with 2023 and 2024 forward S&P P/E of 18.5x and 16.6x.

So, is Mr. Market offering enough return for the risk that it may be giving?

## EU vs US banks capital

The conventional wisdom holds that large EU banks are much better capitalized than large US banks, but just like anything in life it’s not a simple red and green proposition.

On surface, capital ratios of large EU banks trump those of large US banks, and the same is often publicized by European regulators and mainstream press. Yet, Mr. Market may be thinking otherwise as per EU banks’ cost of capital and valuation vis-à-vis large US banks. It’s true that market perception could be a function of higher macro risk and lower profitability of EU banks. However, could it also be a function of EU regulatory regime i.e., Risk Weighted Assets (RWA)?

**Table 3: regulatory vs actual leverage**

Banks	Regulatory Leverage				Actual Leverage				
	CET 1 Ratio	CET 1 Ratio (Adj)	RWA / Assets	RWA / (Loans + LT Inv)	Tangible Equity / Assets	Tangible Equity (Adj) / Assets	Capital / Assets	Capital (Adj) / Assets	Cash / Assets
EU GSIBs	13.7%	13.7%	28%	56%	4.3%	4.3%	5.4%	5.4%	13%
EU Large 30	14.3%	14.3%	32%	52%	5.0%	5.0%	6.1%	6.1%	15%
US GSIBs	13.1%	10.2%	49%	89%	6.3%	4.8%	8.2%	6.7%	12%
US Large 30	10.6%	8.7%	69%	108%	5.7%	4.6%	9.3%	8.2%	19%

(Adj) includes HTM unrealized losses of US banks

Source: Bloomberg. EU Large 30 (SXTX Index), US large 30 (KBW Index).

The above table speaks volumes: RWA of large EU banks based on total assets and loans + long term investments is almost half of those of large US banks. Unless one is convinced that the RWA of large EU banks carry less risk (credit, market, and operational) than those of large US banks, the risk-based capital ratios of EU banks might be overestimating their capital strength.

If one were to replace RWA with total assets, superior equity capital ratios of Large EU banks fall in line with those of large US banks. More so, with this same adjustment, superior total capital ratios of large EU banks look inferior to those of large US banks.

This is not a definitive conclusion, but banks books are certainly tricky. Perhaps market pricing – high variation in P/B multiple of large EU banks – supports the notion that EU banks’ RWA could be underestimating risk and overestimating capital strength.

Some food for thought for investors in assessing whether large US banks are oversold relative to large EU banks!

## EU Banks AT1 Securities

Since their conception, AT1 securities have been a darling of wealthy Asian investors because of their high carry in a low interest rate environment. However, these are perhaps one of the most complex securities ever invented by mankind and after the Credit Suisse debacle have fallen off the investors’ wish-list.

Investors thought that by investing in these securities they had sold a “put option” on banks’ book value, contingent on regulatory risk weighted assets (RWA again?), when there was also a put option that they had sold to the regulator itself, contingent on both the market weighted value of those assets and discretion of the regulator.

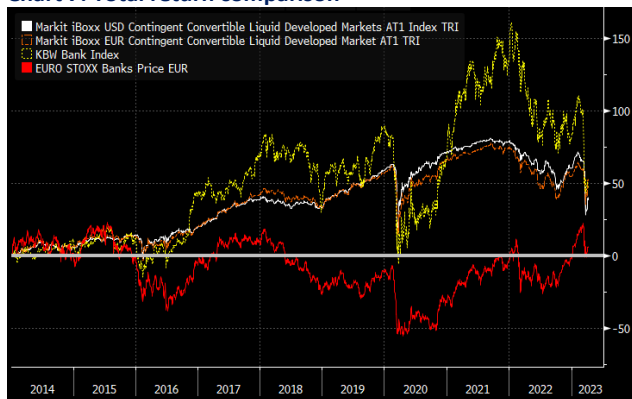
<sup>3</sup>A put option (or “put”) is a contract giving the option buyer the right to sell the underlying to the put seller at some pre-determined price.

Interestingly, according to a report published by De Nederlandsche Bank in 2018, more than 70% of outstanding AT1 securities were held by non-EU investors whereas EU households held only 1.1%.

No wonder investors have lost love for and trust in AT1 securities given their inherent complexities and perhaps the incentive of regulator. With that in mind, we provide an alternative yet a simple way to frame EU banks AT1 securities. From our vantage point the answer to complexity is simplicity, especially when opportunity set is large.

The first thing to assess is whether it pays to invest in AT1 securities. In the last 10 years, AT1 index (iBoxx) has outperformed EU banks Index (SX7E) on both total return and risk adjusted basis (Sharpe ratio) and US banks Index (BKX) on a risk adjusted basis (Chart 7). In short, a diversified exposure to AT1 securities hasn't done that bad that it does not deserve any place in a multi-asset portfolio.

**Chart 7: Total return comparison**



Source: Bloomberg

The next thing to assess is whether the expected return versus risk of AT1 securities is now reasonable or not. The environment post Credit Suisse AT1 wipe-out throws conventional measures of expected return and risk, the yield-to-call and book value-based CET 1 ratio triggers respectively, out the window.

Instead, investors should simply focus on yield-to-worst and market implied triggers. Because if market reflexivity comes into play again, book value-based triggers will be irrelevant: investors found out this ugly truth the hard way in case of CS whose CET 1 ratio as per book value was > 14% but the market thought otherwise and then the regulator too.

Simply put, a depressed price-to-tangible book value of a bank, more often than not, is a sign of stress, therefore one should avoid AT1 securities of such EU banks (Table 4).

**Table 4: Distance to trigger; book value vs market value based.**

EU GSIBs	CET 1 Ratio	P/TBV	Market implied CET1	CET1 Trigger	Distance to Trigger (Book Value)	Distance to Trigger (Market Implied)
HSBC HOLDINGS PLC	14.2%	0.94	13.4%	7.00%	7.2%	6.4%
BNP PARIBAS	12.3%	0.69	9.3%	5.13%	7.2%	4.2%
CREDIT AGRICOLE SA	11.2%	0.80	8.8%	5.13%	6.1%	3.7%
BARCLAYS PLC	13.9%	0.51	6.9%	7.00%	6.9%	-0.1%
SOCIETE GENERALE SA	13.5%	0.28	4.7%	5.13%	8.4%	-0.4%
DEUTSCHE BANK	13.4%	0.36	5.5%	5.13%	8.3%	0.3%
CREDIT SUISSE	14.1%	0.24	4.0%	7.00%	7.1%	-3.0%
UBS GROUP AG-REG	14.2%	1.29	21.2%	7.00%	7.2%	14.2%
ING GROEP NV	14.5%	0.83	12.2%	7.00%	7.5%	5.2%
LLOYDS	15.1%	0.95	15.3%	7.00%	8.1%	8.3%
STANDARD CHARTERED	14.0%	0.59	7.2%	7.00%	7.0%	0.2%
NATWEST GROUP PLC	14.2%	1.03	14.5%	7.00%	7.2%	7.5%

Source: Bloomberg, Company financials.

The market implied trigger is CET 1 trigger adjusted with Mcap/CET1 ratio. Green = Preferred, Blue = Ok, Red = Avoid

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