Active Risk Allocation

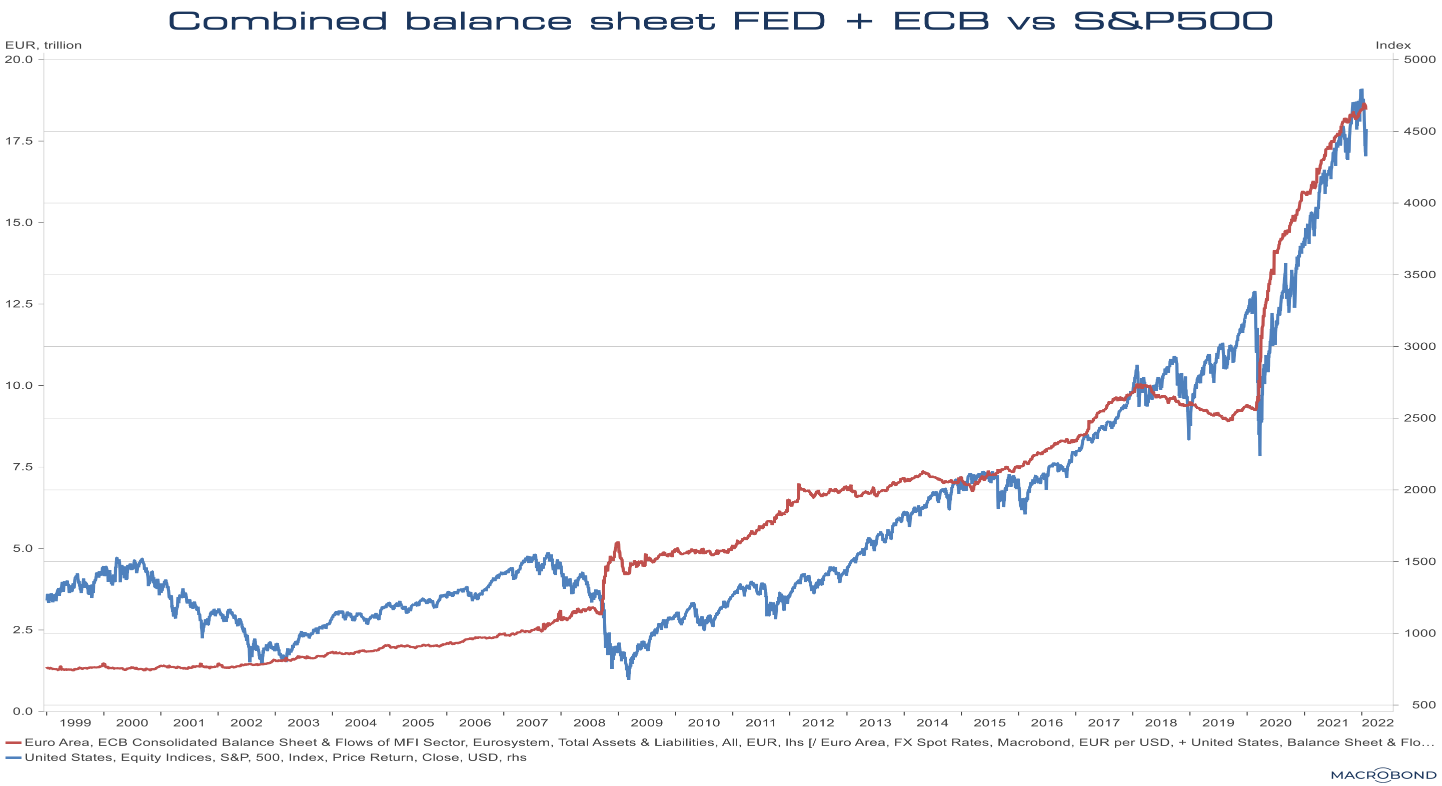
February 2022

ORIGO CONSULTING

Independent | Transparent | Disciplined

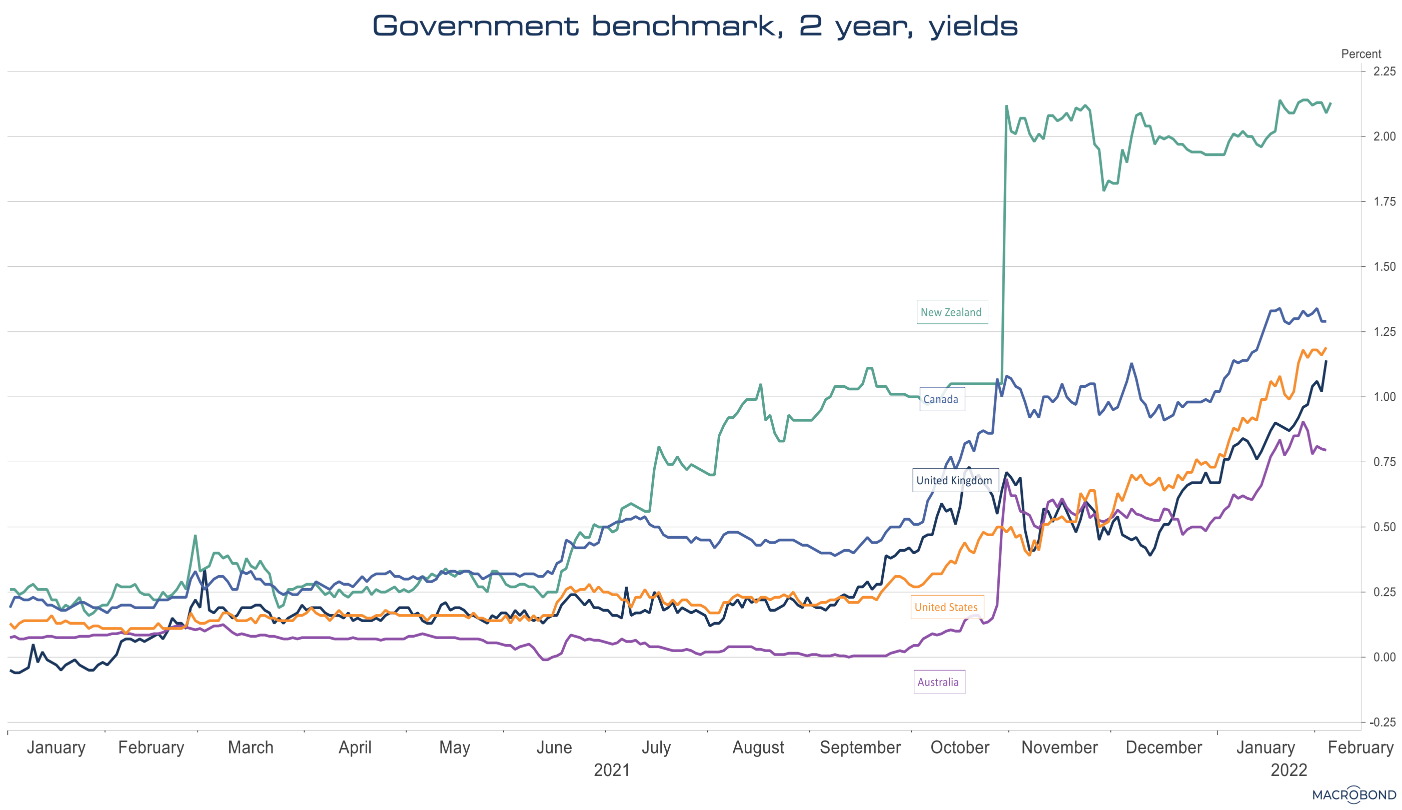
Central bank watch

What else to watch?



Central bank watch

Central bank talk is over



Active Risk Allocation

Status

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Status

Reversal of 13 years global monetary policy

Investors to balance TAA and SAA horison

Stocks short-term oversold – but the fundamentals have changed

Stocks – neutral

- Rotation; Regional/sectorial/cap-size - pro-cyclical “laggard rotation”
- Preference to low vol factor

Bonds – underweight (if possible no exposure)

- Regional overweight Europe vs US. Duration underweight

Macroeconomics

- Central bank tapering & inflation 37y high and still surprising expectations
- Supply disruptions (food, energy, transport, semi-conductors)
- Biden stimulus package(s) .. IMF cut global growth
- CoVID-19 end game and effect

Indicators

- OPRA: Neutral / Weakening (risk gauge for balance risk/risk free)
- OMRI: Negative / Peak’ish (model volatility gauge)

Investment process

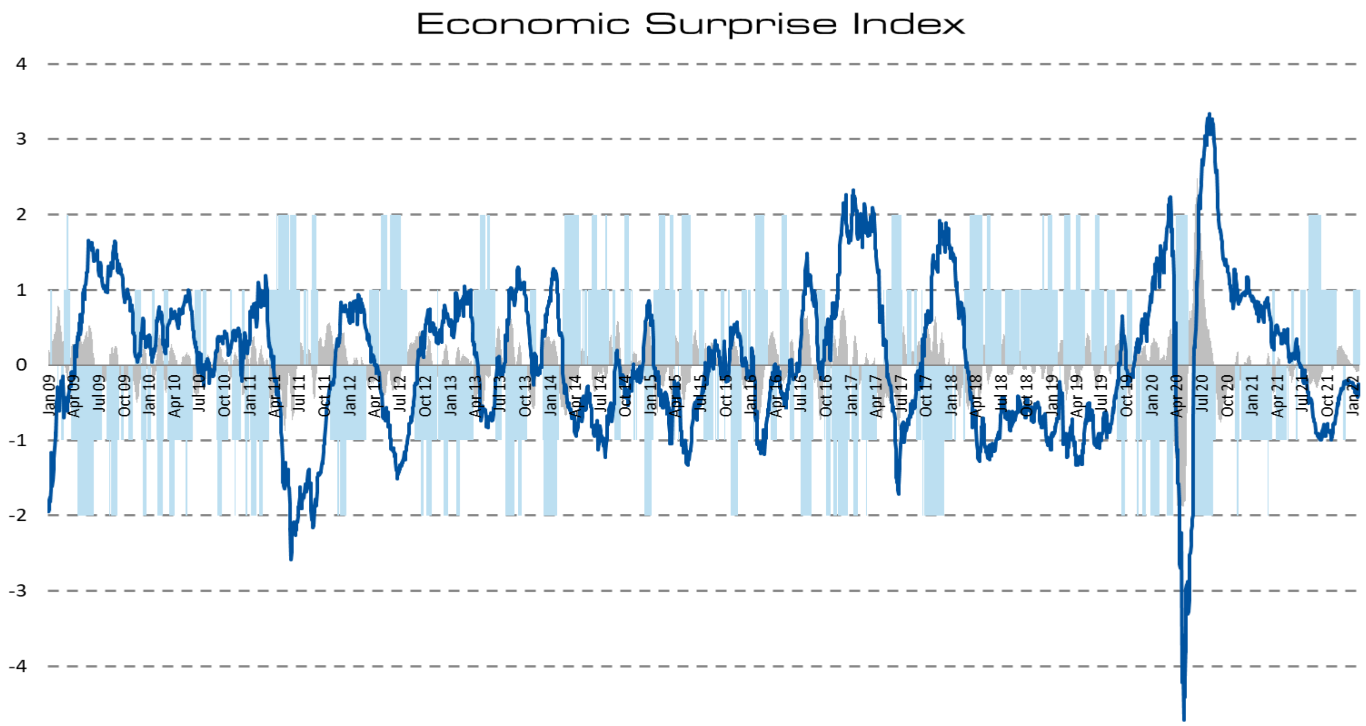
Indicators

Highly sophisticated models analysing about 150 indicators

Fundamentals	Proprietary macro and micro economic models
Risk models	The investment value of diversification, volatility and correlations
Market intelligence	Market positioning, risk perception and dynamics
Trend following	Trends, direction and strength

Fundamentals

- **Macroeconomic models**
- Volatility and risk budgeting
- Market intelligence
- Technicals and trend following

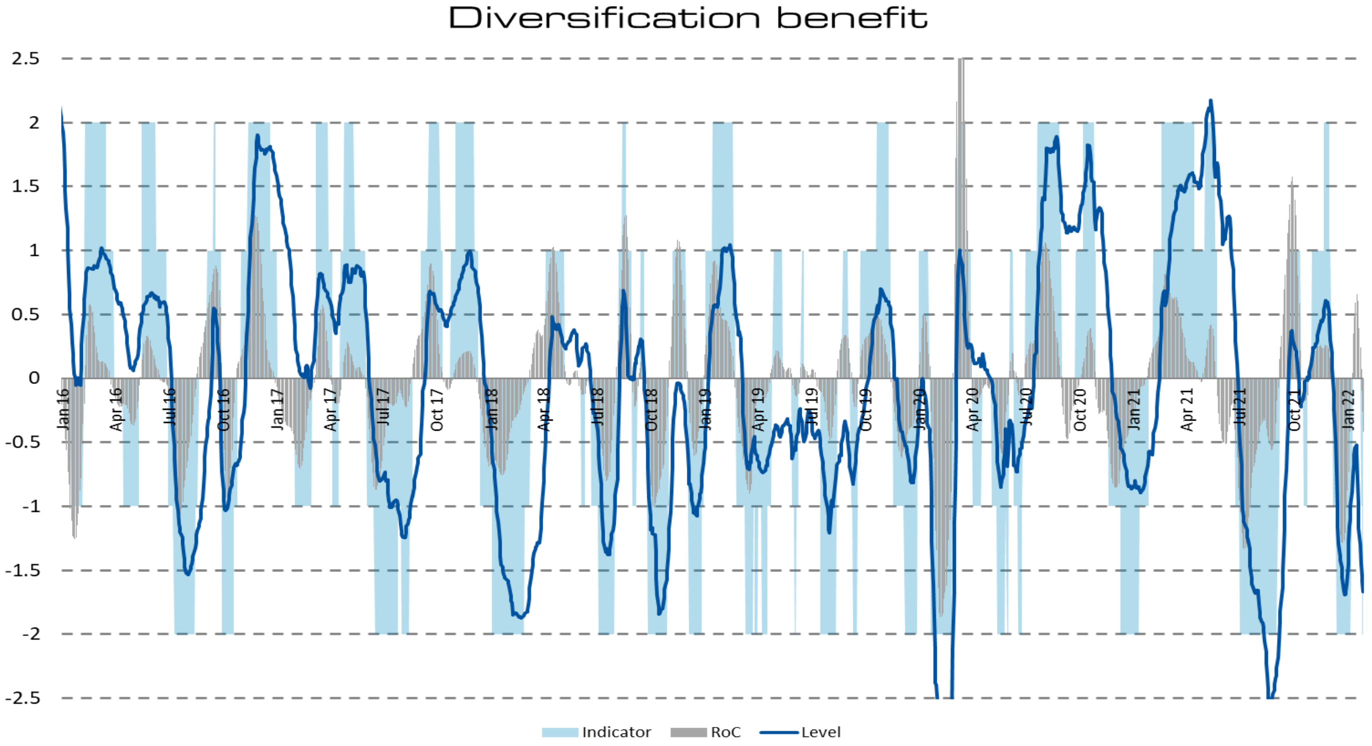


Real activity level is high but moderating from an above trend level.
Analysts' being overly too optimistic, are behind the curve on reducing expectations.

The ESI (above centre) is a powerful indicator of coming stress.

Volatility and Risk budgeting

- Macroeconomic models
- **Volatility and risk budgeting**
- Market intelligence
- Technicals and trend following

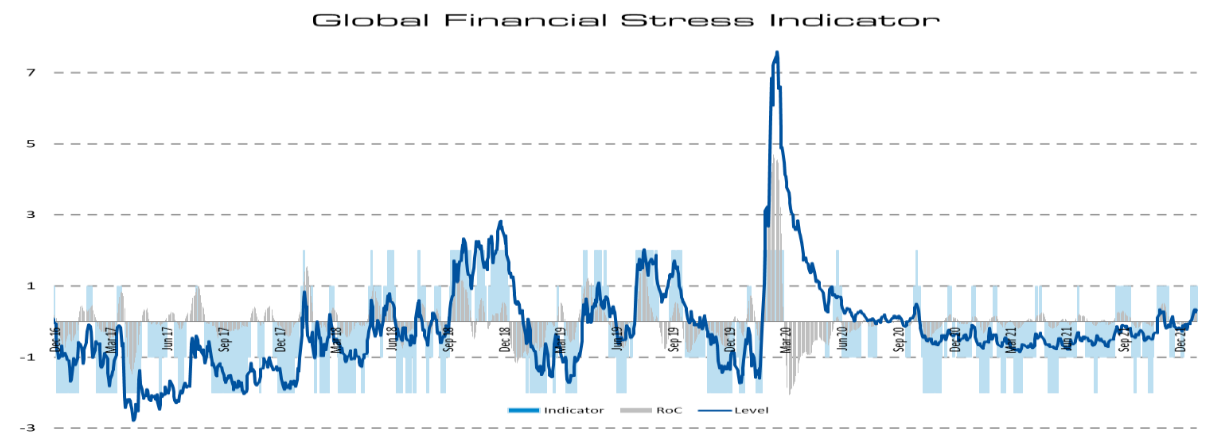


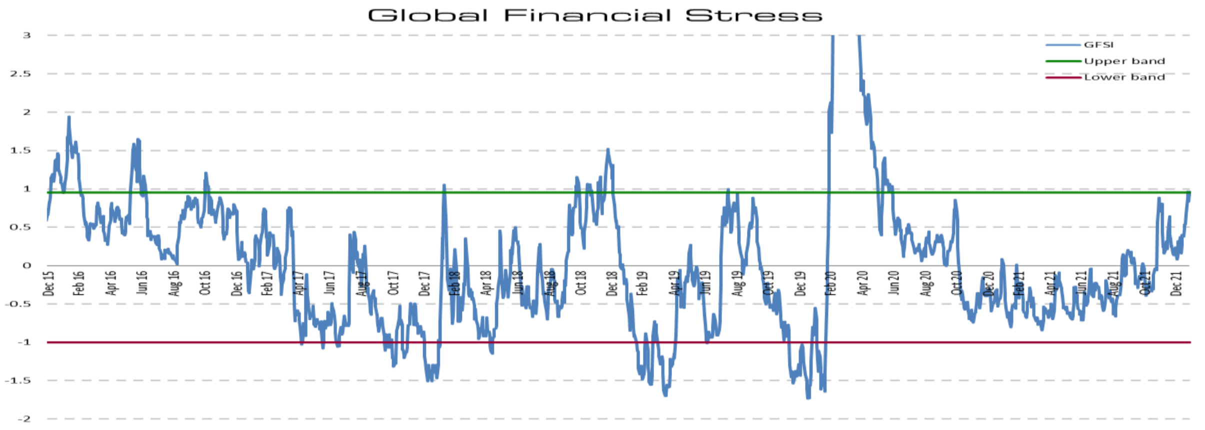
Diversification benefits are not existing and has become extremely volatile.
In our experience an indication of a possible regime change.

When the diversification risk is increasing, there is not much to be gained from diversifying. Cash should then be meaningfully increased.

Market intelligence

- Macroeconomic models
- Volatility and risk budgeting
- **Market intelligence**
- Technicals and trend following



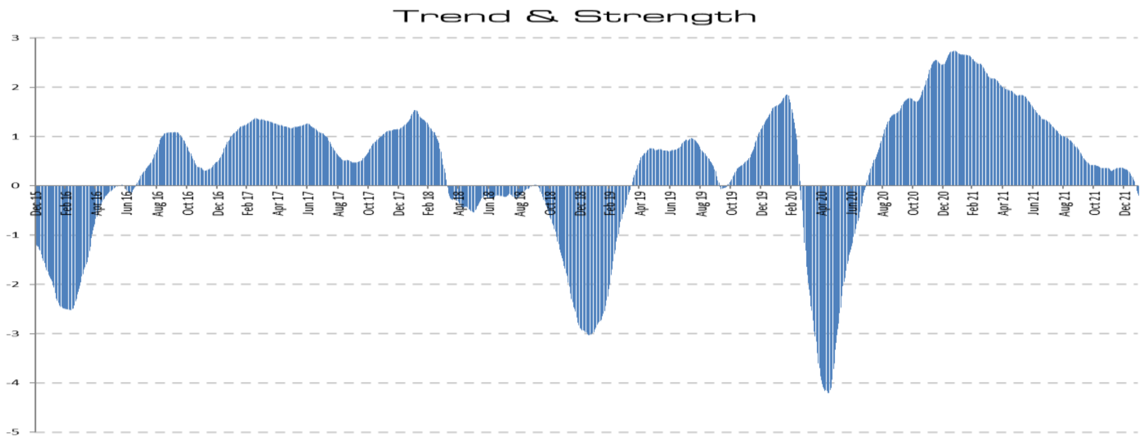


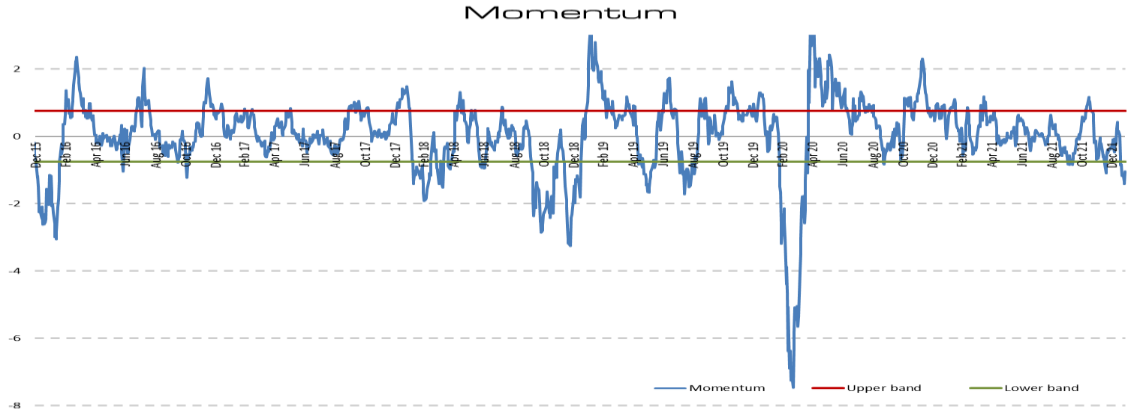
Financial markets condition has only slight deteriorated for neutral'ish.
Yet, investor stress is at the highest level since Sep2021. For short-term horizons, this factor is now prone for rapid improvement.

A measure of global cross market measure of risk, hedging demand(volume, skew) and investor flows in the financial system.

Technicals

- Macroeconomic models
- Volatility and risk budgeting
- Market intelligence
- **Technicals and trend following**

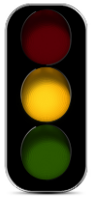




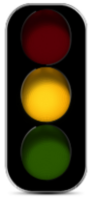
The medium-term trend is now negative for the first time since Feb 2020. Technical ”oversold” momentum is a setup for a dead cat rebound. This will likely by triggered by a temporary improvement in investor sentiment (greed).

Trend strength in the various market is an expression of the persistance of the currently existing trend.

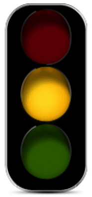
Current status



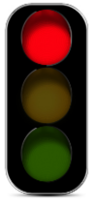
Macroeconomics
Global economic growth moderating. CoVID19 end game potentially a boost to developed economies.
Price pressure, remain very high and continue to surprise analysts to the upside.
Risk is for central banks to accelerate tightening of extreme monetary stimulus.



Market Risk and market intelligence
Risk appetite show investor stress.
Stock investor dynamic now reflect the beginning of understanding that Central banks will reduce extreme accommodation.
The rapidness of deterioration is a setup for a short-term improvement.



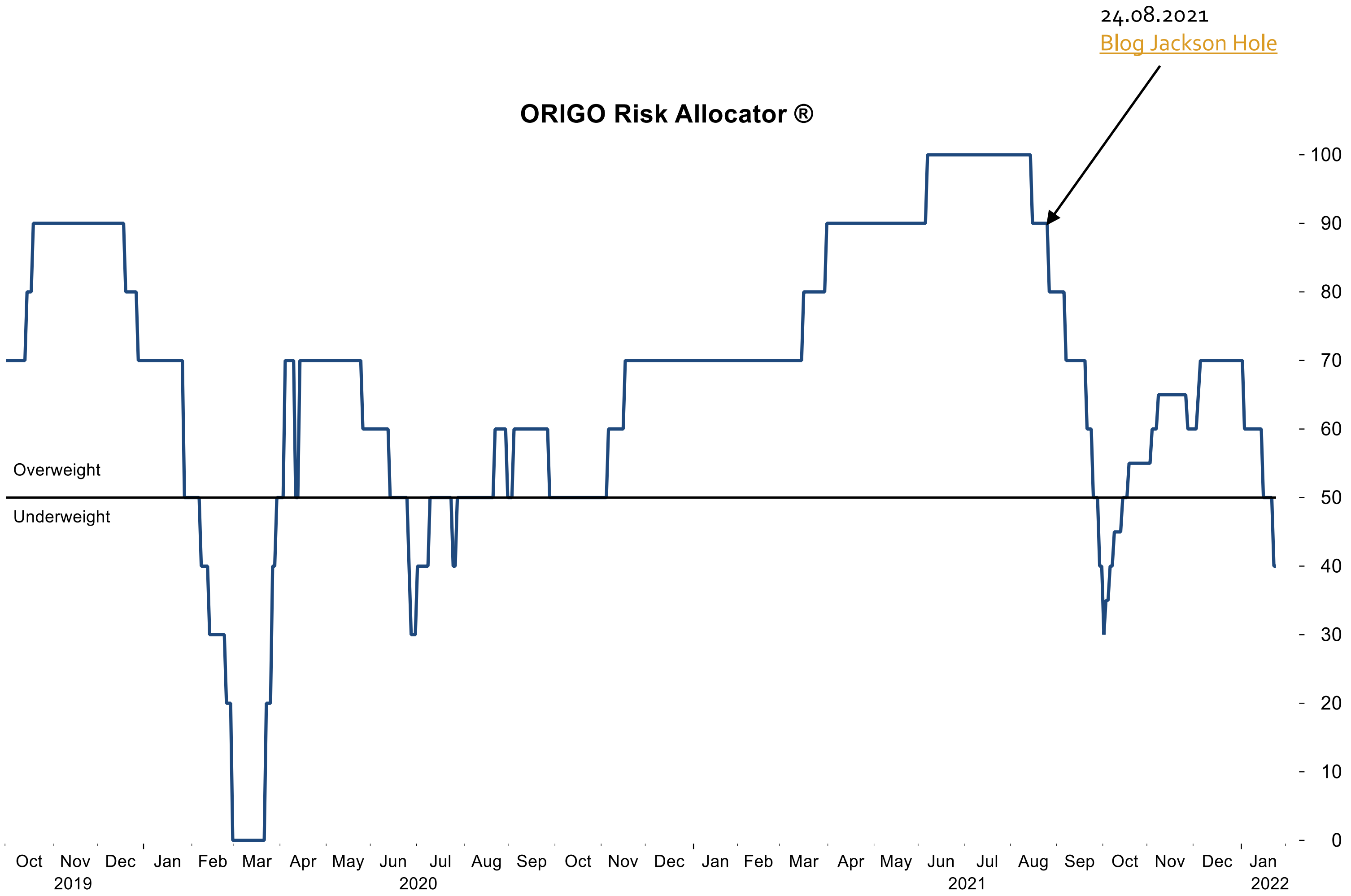
Technicals
Medium-term trend strength in risk assets is now negative.
Short-term a setup for a rebound on too-much-too-fast dynamics.



Volatility and risk budgeting
Portfolio risk is negative as correlations are negative.
Volatility levels show some stress, but only on a medium level.
This means that a traditional portfolio of 60 stocks/40 bonds, should balance if stocks drop bonds should generally rise and so offer protection to capital.

OPRA®
Origo Portfolio Risk Allocator

Timeline, 2019 -



OMRI®
Origo Market Risk Indicator

The balance of risk assets

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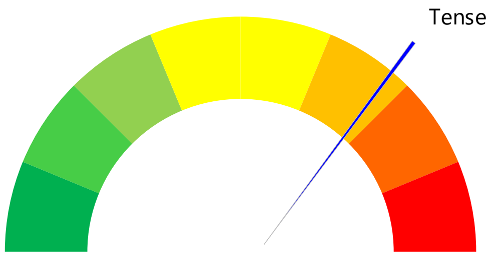
31 January 2022

Indicator	Sentiment	Last update
X-Asset correlation	Tense	28 Jan 2022
Economic Surprises	Tense	28 Jan 2022
Financial Conditions	Tense	31 Jan 2022
Global Financial Stress	Tense	28 Jan 2022



Portfolio risk management

Annexe

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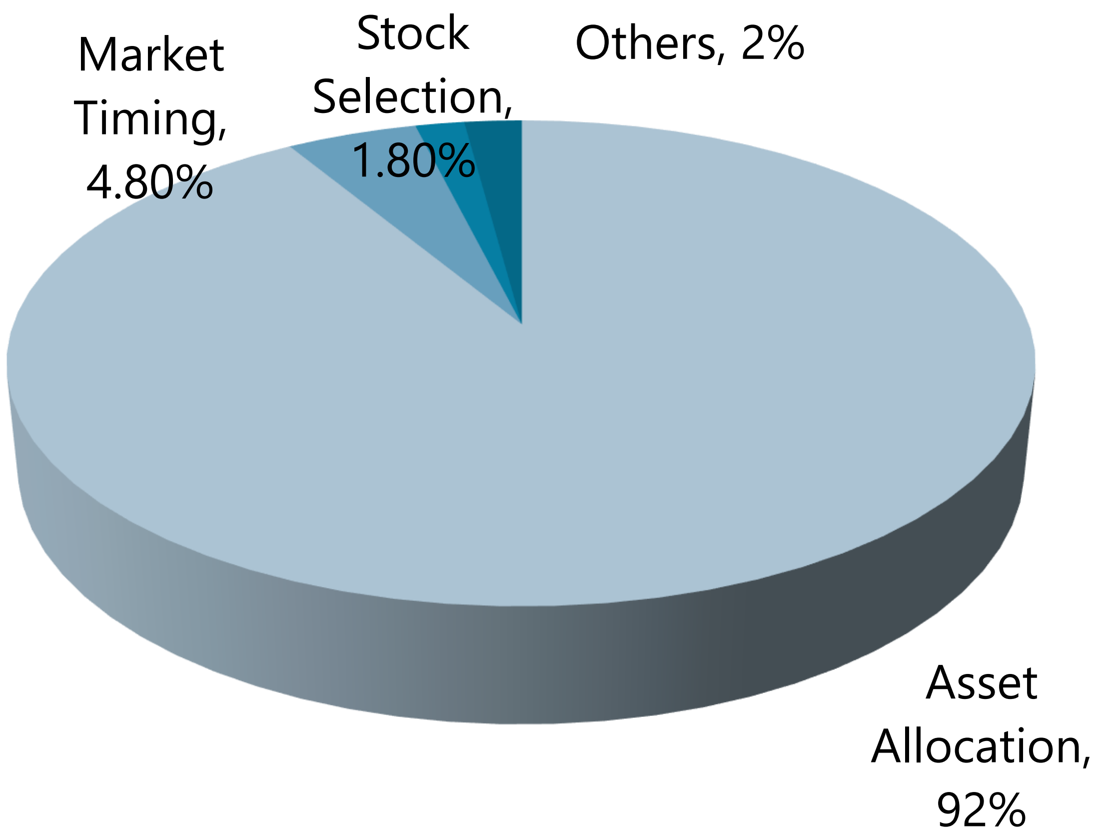
Portfolio management - short-term horizon

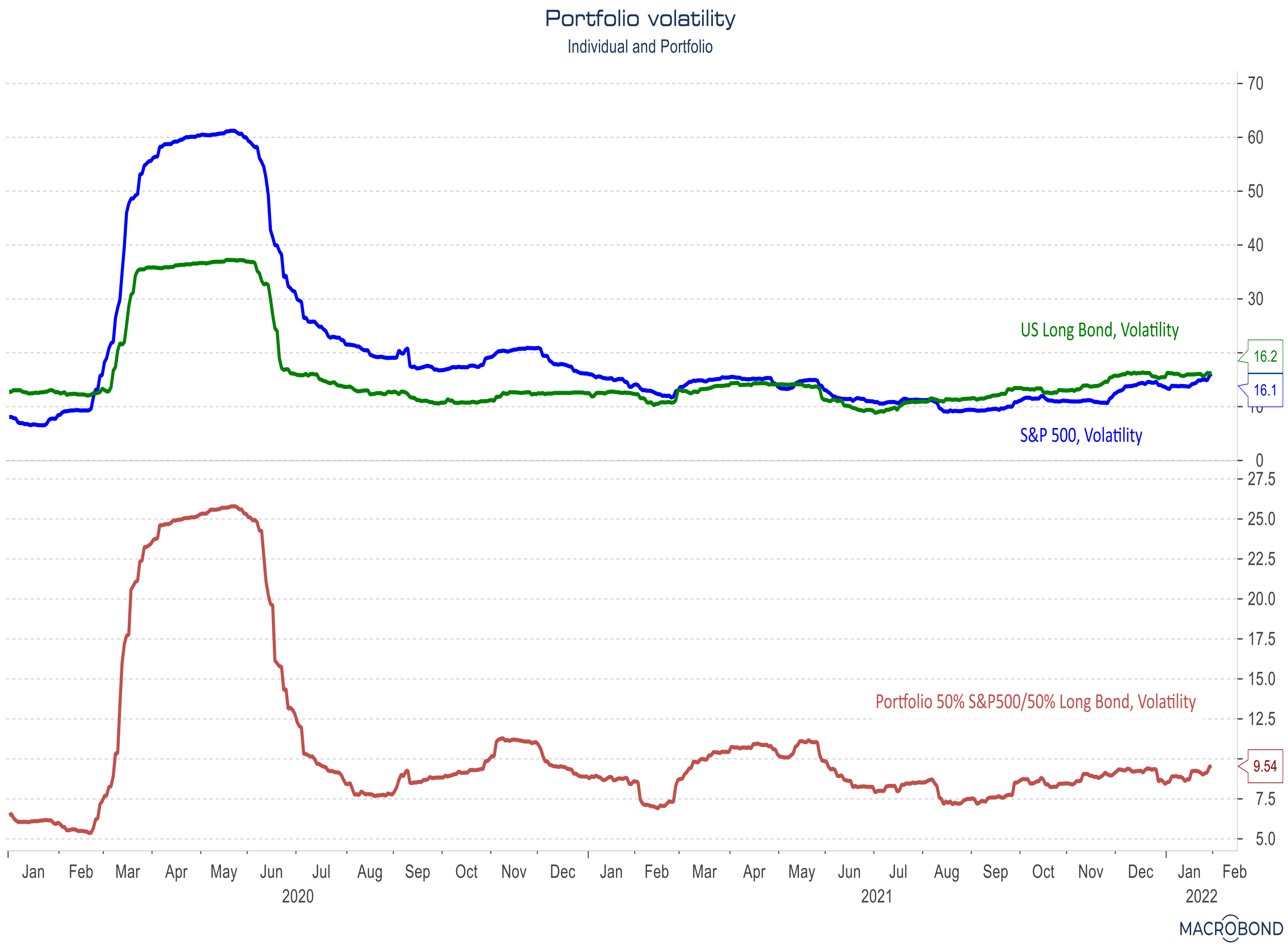
Performance attributions and contributions



Source: Brinson, Hood & Beebower; Determinants of Portfolio Performance
Financial Analyst Journal July-August 1994,

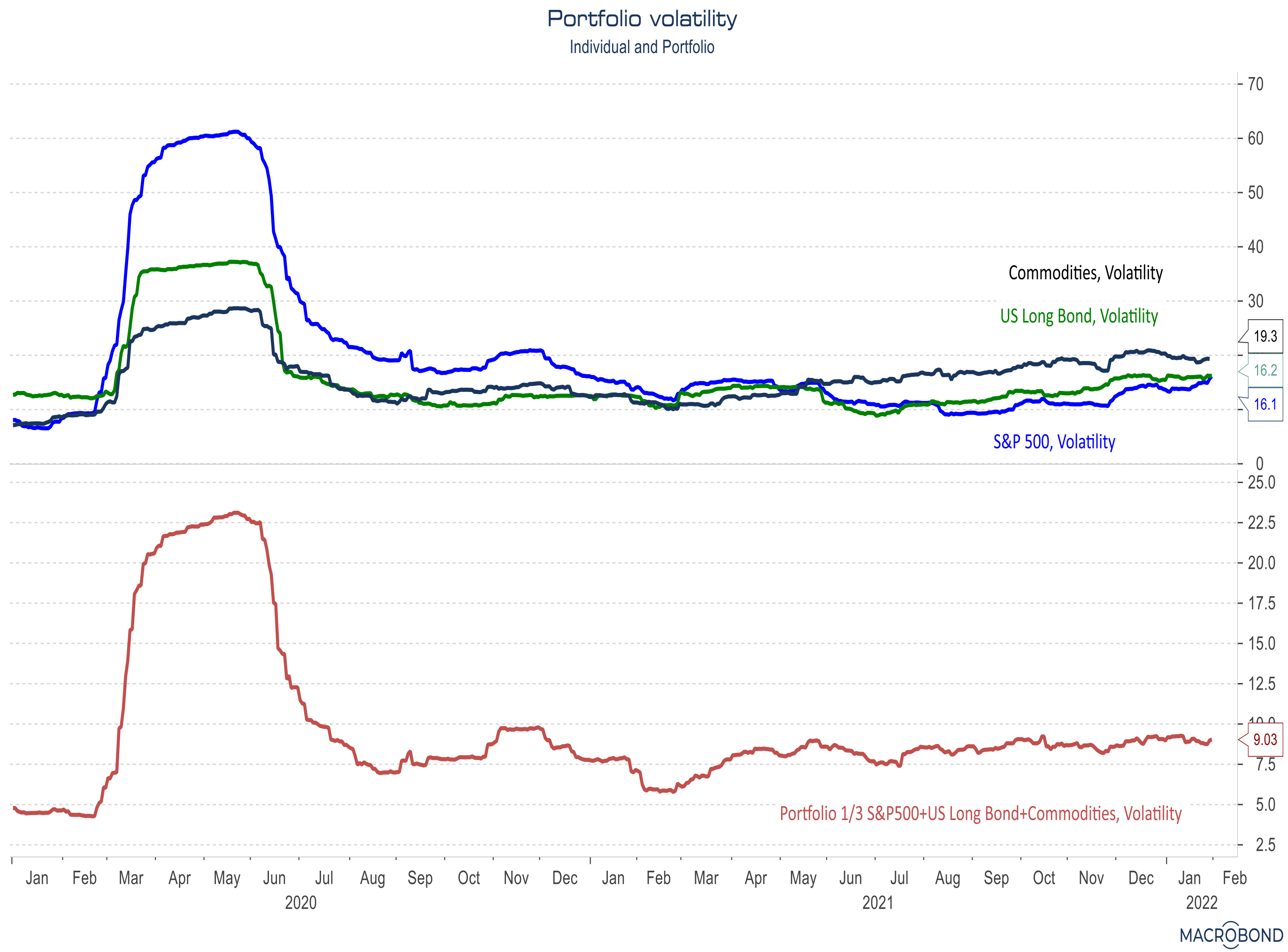
Risk management

2 assets



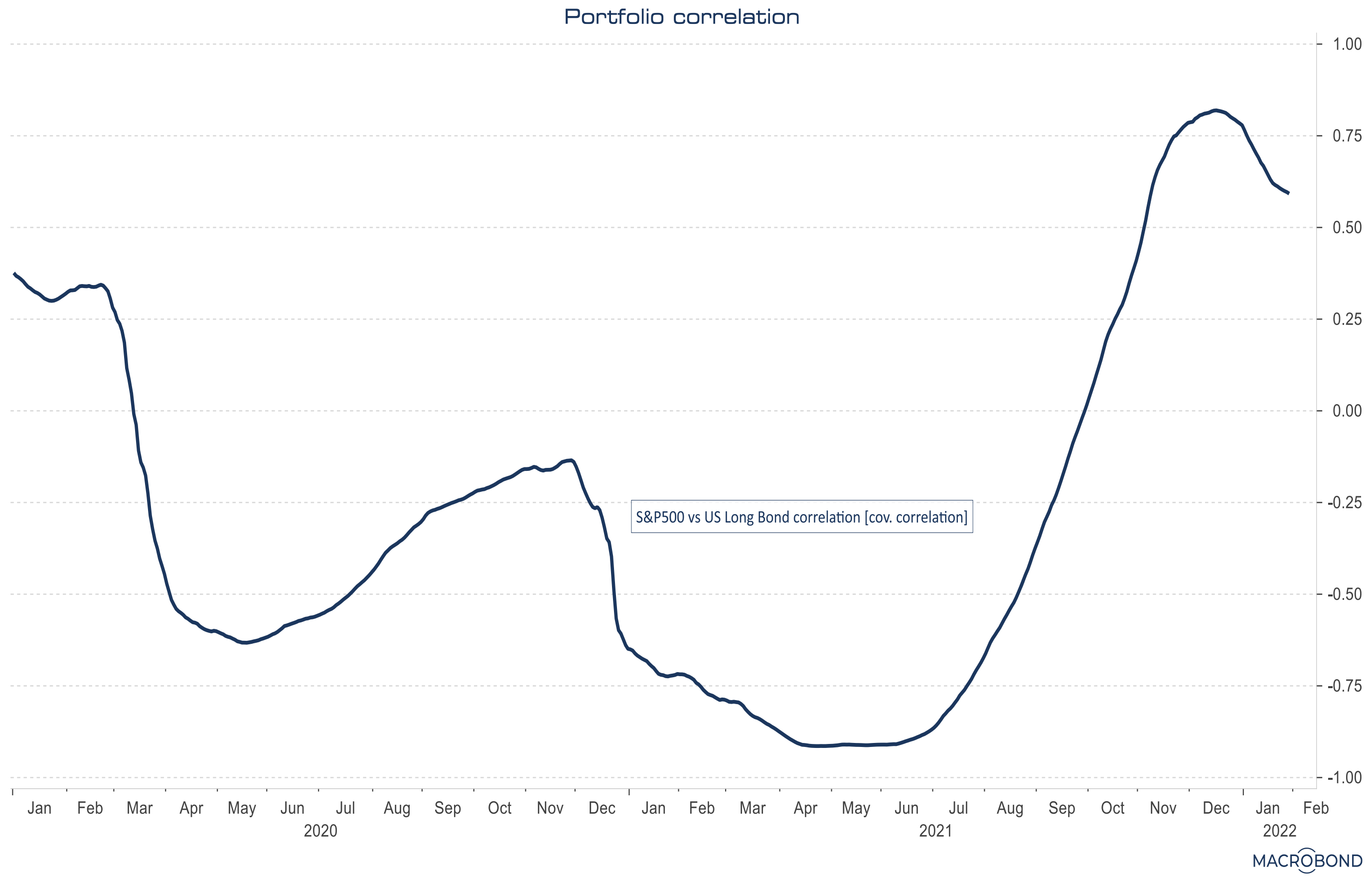
Risk management

3 assets - adding a non-rate sensitive higher risk asset



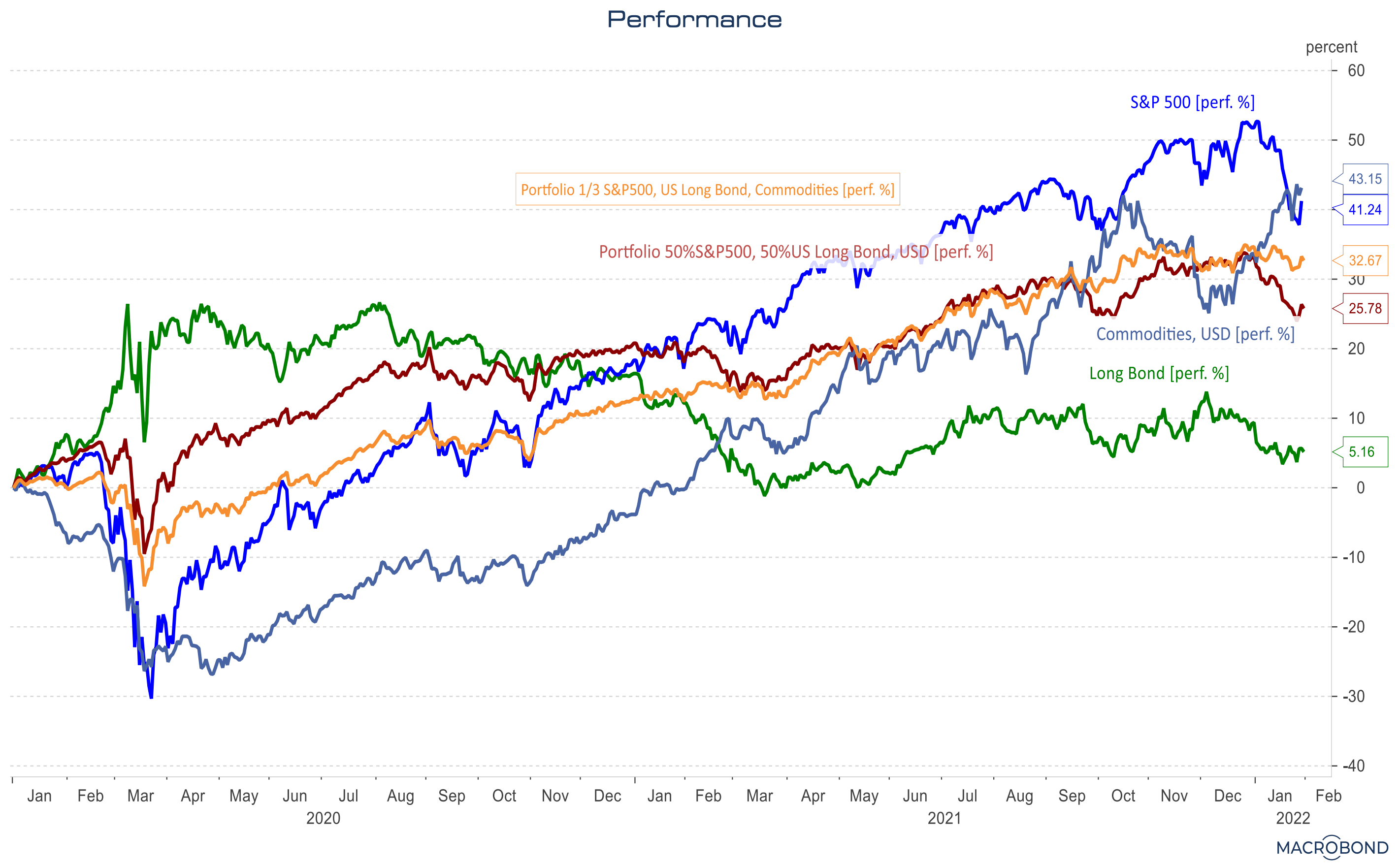
Risk management

Correlation



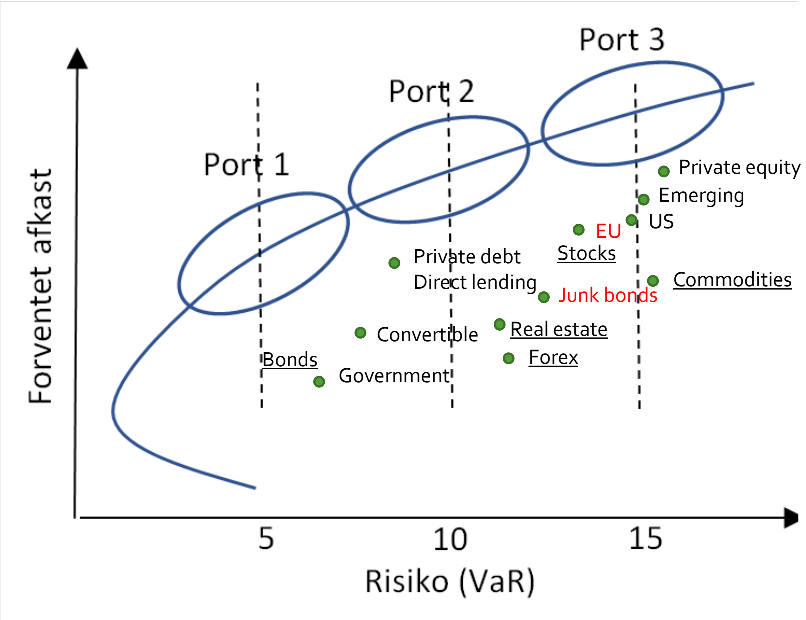
Risk management

The 3 assets + Portfolios combined of 2 and 3 assets



Portfolio management

Modern Portfolio Theory Selection of uncorrelated assets



Aktivklasse	Benchmark	Forventet afkast	Downside risiko
Aktier USA	S&P 500	7%	14%
Aktier	Stoxx 50	7%	14%
Aktier DK	DK C25	8%	15%
Aktier Japan	Nikkei 225	9%	18%
Obligationer	Realkredit	2%	5%
Obligationer	EMD	5%	8%
Obligationer	High yield	1%	8%
Alternativer	Sec. Bankloans	4%	5%
Alternativer	Mezzanin	12%	10%
Alternativer	Direct Lending	10%	10%
Alternativer	Real Estate	15%	15%
Alternativer	Private Equity	15%	20%
Alternativer	HF-Macro	8%	10%
Alternativer	HF-Mixed	8%	10%
Alternativer	HF-Realkredit	6%	8%

Investing solely in Bond portfolio or solely in Equity portfolio is clearly not optimal. As Tobin [2] and Markowitz [3] found out, the correlation between the asset classes is not.
The blue line is the “Efficient Frontier”. By mixing Bonds, Equities and whatever, you move back and forth on the Efficient Frontier. By mixing the 3 asset classes in a certain way we get the portfolio “Diversified” which is the portfolio of the Model. By using leverage, we can move along the line from origo/rrr.

[2] Tobin J. 1958 *Liquidity Preference as behaviour towards risk*. Review of Economic Studies 25 (Feb) pp 65-86.
[3] Markowitz H. 1952 *Portfolio Selection*. Journal of Finance 7 (Mar) pp 77-91

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