



## Global markets outlook

### The power of chips: The most strategic commodity in the world

October 2023

# General overview

## Risk off but not growth collapse...

MULTI ASSET	1mo	3mo	YTD	1YR	3YR	5YR
Oil Index (USD)	9.8%	32.3%	18.4%	23.5%	42.6%	4.1%
GSCI Commodities (USD)	6.7%	19.5%	8.1%	2.6%	34.0%	7.5%
Cash (EUR)	0.3%	0.9%	2.3%	2.7%	0.6%	0.2%
EMD hard currency (UH, EUR)	0.0%	0.6%	1.9%	0.5%	-1.5%	1.5%
Emerging Markets (UH, EUR)	-0.2%	0.0%	2.6%	3.4%	1.7%	2.4%
EMD local currency (UH, EUR)	-0.7%	-0.4%	3.4%	3.2%	0.7%	2.3%
Global high yield (H, EUR)	-1.2%	0.0%	3.6%	9.3%	-1.0%	0.0%
Emerging Markets (LC)	-1.8%	-1.4%	4.0%	10.9%	0.6%	2.7%
MSCI World (UH, EUR)	-1.9%	-0.5%	12.0%	12.8%	11.8%	9.3%
Global Gov Bonds (H, EUR)	-2.0%	-2.8%	-1.5%	-2.3%	-6.4%	-1.7%
Global investment grade bonds (H, EUR)	-2.1%	-2.1%	-0.4%	1.9%	-5.7%	-1.1%
Global inflation-linked bonds (H, EUR)	-2.7%	-3.6%	-3.4%	-4.1%	-6.1%	-1.6%
Global real estate (UH, EUR)	-3.6%	-2.6%	-0.8%	-3.6%	4.1%	1.9%
MSCI World local currency	-3.7%	-2.6%	12.1%	20.4%	9.5%	8.0%
MSCI World (H, EUR)	-3.9%	-3.0%	10.6%	18.1%	7.8%	6.1%
Gold (USD)	-4.7%	-3.9%	1.3%	10.9%	-1.4%	8.1%

Source: Robeco, Bloomberg

2 All market data to 30 September 2023 unless mentioned otherwise

Explaining market movements is difficult even in hindsight because the analysis highlights inconsistencies and contradictions. September and Q3 reflected a sell-off in both risk and safe haven assets, since the correlation between equities and bonds was positive, leading to concerns about the expected returns of balanced portfolios due to a lack of diversification. Research shows that most of the risk taken in a balanced portfolio comes from equities until you have less than a 30% allocation – i.e. it has a low risk-on spectrum, where the risk is more balanced between equities and bonds.

Returning to market moves, oil performed very well as the price momentum exploded following supply cuts by Saudi Arabia. This dragged up the broader commodities index. Looking at this in isolation implies that economic demand outlook is strong, which is contrary to our view that economies are slowing, and that China's recovery has deferred. Hence, we don't expect the rapid rise in oil prices to continue.

The higher-for-longer message from central banks has started to sink in. The effect of this headwind has been more pronounced for growth stocks and government bonds. US 10-year government bond yields reached their highest level since the global financial crisis, while German Bund yields are at their highest level since before the European debt crisis. Consequently, real interest rates have risen across the global, except in Japan, which is maintaining an increasing shaky yield curve control (YCC) policy, causing gold to sell off despite it being considered a 'risk' hedge.

Despite the stronger US dollar, emerging markets (MSCI definition) assets outperformed their developed market counterparts (equities and bonds), again signally better economic times ahead.

# Theme of the month

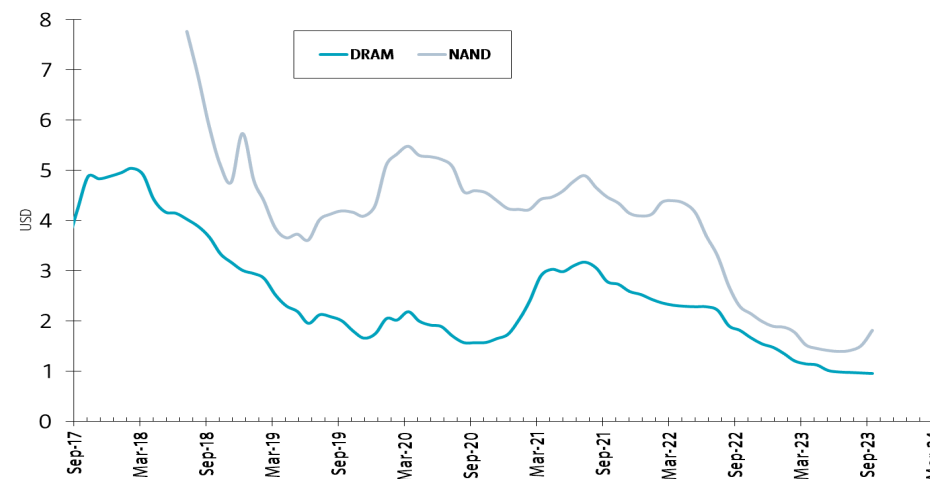
## Semiconductors - memory prices down, stock prices up

Last year at this time, close to the bottom of the equity correction, we dared to be upbeat on the outlook for what are seen as pinnacles of cyclical: [chips and ships](#). Upon reflection we see that prices of basic goods and services remained weak – memory chips are down 45% and shipping rates are down 40% – and contrary to our expectation, we have seen some losses in the industry (e.g. at SK Hynix). In the equity market, however, memory chip producers have rallied about 30% over the past 12 months, even though inventories only peaked in Q1 2023. The bellwether SOX index even rose 60% before a recent correction. Supply discipline has been key when ‘bit demand’ growth from memory chips dropped to single digits in 2022 and 2023, following growth of more than 20% in 2020 and 2021. Similar to Saudi production cuts in oil, the ‘memory cartel’ cut chip supply in response to demand weakness. For 2024 a solid demand recovery is on the cards, supported by a PC upturn, the resumption of server growth and the AI-wave that will likely add 5% alone to global bit demand. The potential of 2024 has been the main reason for the stocks rallying in 2023. Also, multiples of semiconductor companies have expanded to 5-6x enterprise value over sales (see chart) as margins on more sophisticated semiconductors are deemed to be higher and more sustainable. Recently, we have witnessed a pullback in the sector due to the reversal of some Covid-era imbalances resulting in fading pricing power for those that can ship the chips.

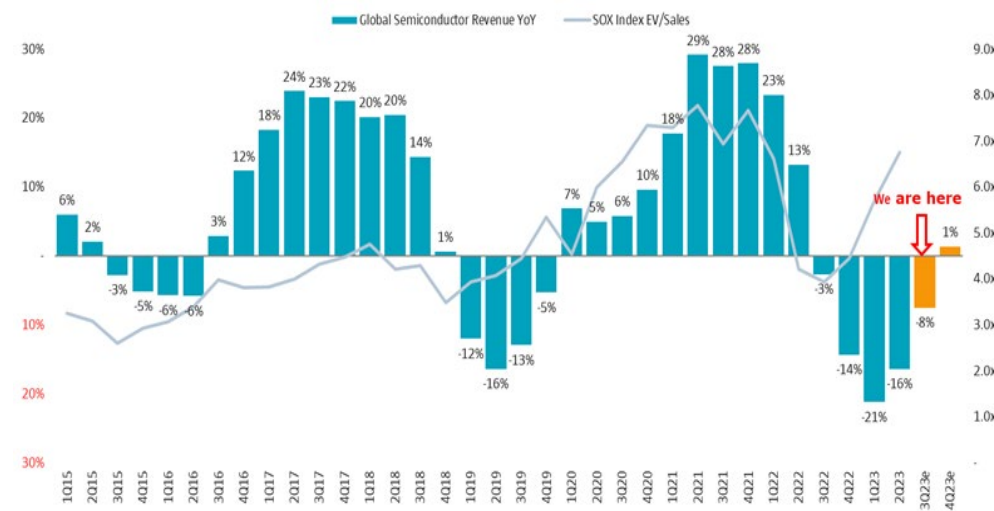
## An important raw material for sustainable investors

The Sustainable Multi Asset Solutions team is heavily involved in this market now that we offer multi-thematic solutions to clients. Semiconductors are a big driver of innovation and are essential for the energy transition: they are key elements of solar panels, electric vehicles, power inverters and storage devices. They comprise nearly 15% of our impact-orientated equity allocations in the Multi Asset Sustainable strategy and up to 38% of Robeco’s bespoke Smart Energy and Smart Mobility portfolios. Return correlations are very high with the SOX index. Semiconductors have many commodity-like characteristics, such as market pricing, fungibility, standardization, liquidity and trading in global markets. But unlike mined or farmed commodities, semiconductors are man-made and with increased complexity and design features, it is no longer a homogenous market. Anyone can make a DRAM but only one company can make a GPU that can run your AI.

## Memory prices: no inflation here



## Semi stocks respond three quarters before demand growth bottoms



# Theme of the month

## The most strategic commodity

An important new feature of semiconductors as commodities is that they have geopolitical relevance. We used to fight wars over gold, copper and iron ore. Now, next to the risk of wars over lithium and cobalt for batteries, we also see strategic tensions between the US and China over (access to) semis. Semiconductors can safely be said to be staples for global economies. They are considered of strategic importance to future economic development, and most production now comes from Asia. Europe seems marginalized, but it does hold the trump card of being the champion in lithography needed to facilitate further miniaturization.

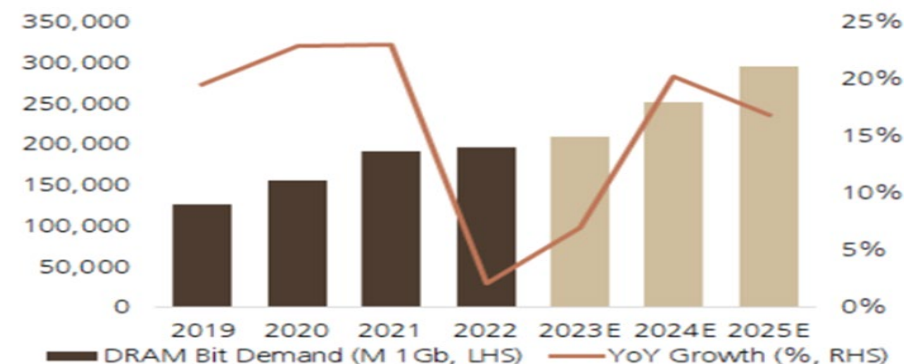
With rising trade tensions, major economies want to be independent for both their energy and chip supply. It is risky to have chip manufacturing done by an outsider, let alone by a company that is based on Taiwan, an island to which China lays claim. Politicians have belatedly realized this vulnerability and now have big plans to reduce it. European and American governments are offering very large subsidies for foundries to be built on their home soil. The Chips Act for Europe came into effect last month and aims to invest more than EUR 43 billion, with the ambition to get back to 20% market share in global chip production from less than 10% today (and mostly at the lower end). The US Chips and Science Act is more geared to preventing advanced chips reaching China, but here too foundries are being enticed to produce leading-edge chips in the US. The three leading chip producers have agreed to build fabrication plants (fabs) outside their home country for a total of USD 100 billion, with USD 30 billion in subsidies (see table). It will be interesting to see if these fabs can be as competitive as the ones in Taiwan, South Korea and China.

## The new oil: this geopolitical hedge needs a futures market

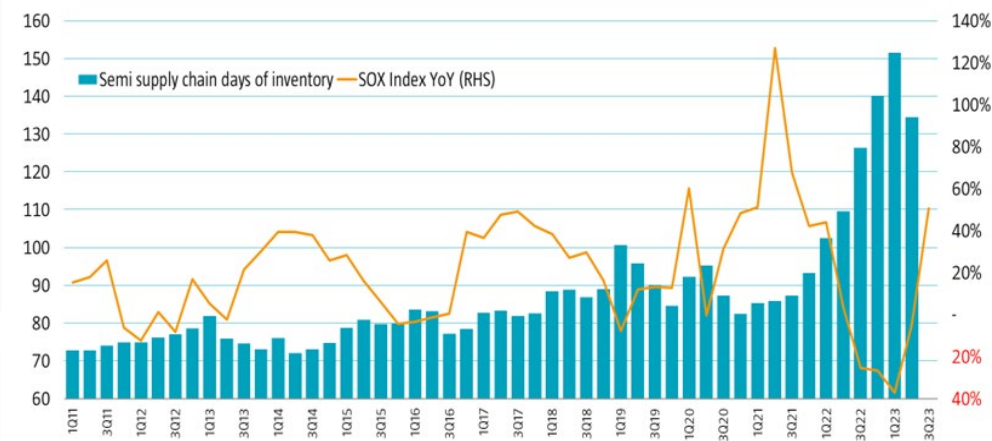
The near-term outlook is not an easy call for thematic investors, now that an upturn is already priced in, strong pricing power due to tight supply has passed its peak, and sales multiples have gone up. The long-term strategic importance of the sector, however, clearly justifies a premium above historical averages for companies that have defensible intellectual property.

Finally, as semiconductors become a strategic commodity, we would make a case for a regulated futures market in memory chips. It has differentiated cycles and thus offers nice diversification benefits. It can also offer insurance against any further geopolitical upheaval, just like oil used to do. Though purified water usage is very high for many fabs, silicon-based memory chips do have a carbon footprint a lot lower than oil.

## Demand for computing power to accelerate in 2024



## Stocks rally when inventories peak



## Strategic fabs to be built in US and Europe

Company	Regions	Investment
TSMC	US (2) & Europe (1)	USD 40 bln + 10 bln
Samsung	US	USD 17 bln
Intel	Germany	USD 30 bln

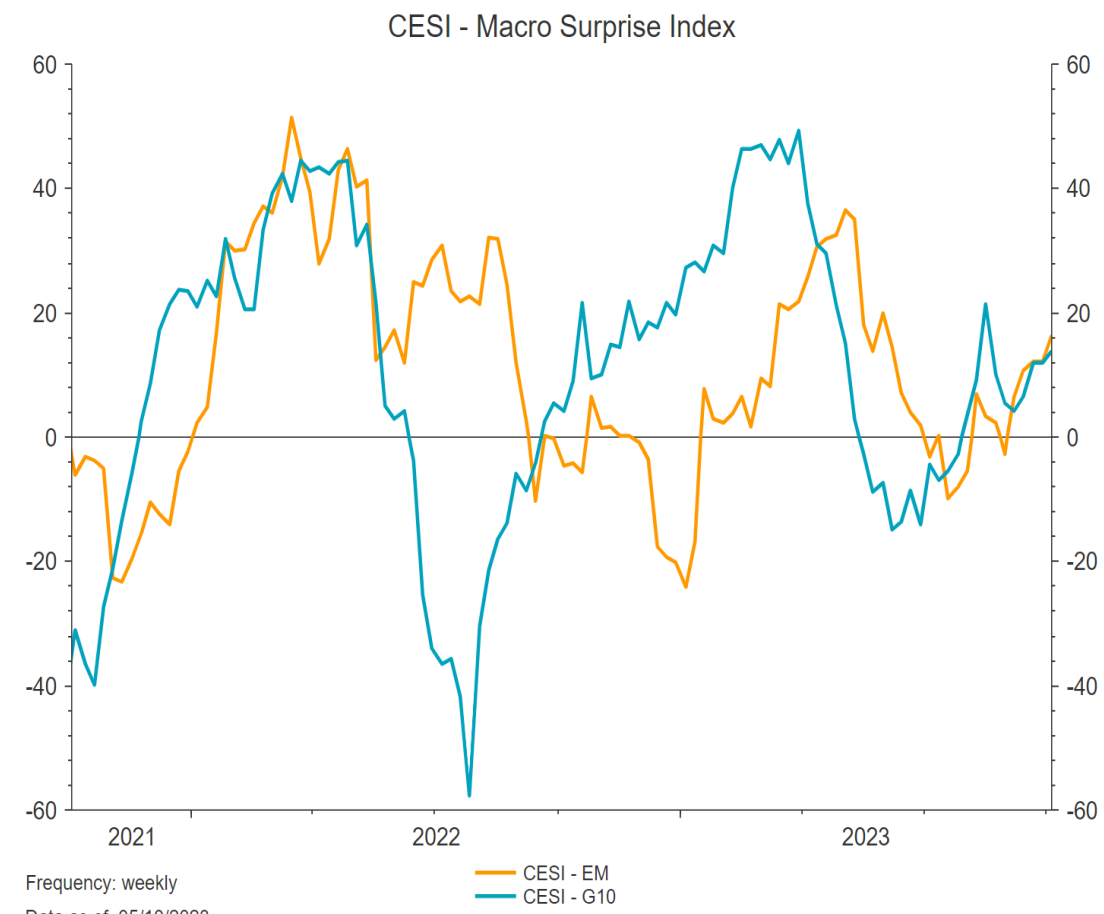
# Economy

While our economic models signal a continuing slowdown, macro surprises in both emerging and developed markets turned more positive during September. This indicates that this business cycle is stretching its legs. Though the pivotal services sector seems to be cooling, judging by a decline in the global services PMI for September to 50.8, hiring in the sector is still strong in the US. A bumper increase of 336,000 new jobs in the US economy was concentrated in services such as leisure and hospitality. The Atlanta Fed GDP nowcast points towards 4.9% Q3 GDP growth, which is stronger than the consensus expected. ISM manufacturing likely troughed during the summer, with the September data showing a declining contraction in activity. The inventory overhang of last year has vanished, while China's manufacturing activity has somewhat stabilized over recent months.

Yet, the recent bear steepening of the curve after peak inversion in July shows that a US recession is underway – if history rhymes. Typically, seven months after peak inversion, a recession of some sort enters the scene, the exception being the 1968 soft landing. Although US unemployment remained at 3.8% in September, recent data does hint at some cooling. The decrease in the quits rate, the decline in the NFIB 'jobs hard to fill' rate, and a deterioration in NAHB housing sentiment indicate that a notable easing of tight labor market conditions is ahead of us.

Concerning inflation, central banks can't yet claim victory even as headline inflation continued its downward trend. In the Eurozone, CPI declined to 4.3% from 5.2% in August, but bringing inflation well below the 3% mark will become increasingly difficult. Likely, an almost absent trade-off between unemployment and inflation facilitating the 'immaculate disinflation' observed so far will resurface. In the US, it is worth noting that core PCE has become predominantly demand-driven again, according to San Francisco Fed data, suggesting that the Fed still has no reason to abandon its hawkish stance.

## Macro surprises are positive for EM and DM



Source: LSEG Datastream, Robeco

Source: Refinitiv Datastream & Robeco

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