Technology of the Future Fund

We find the leaders of the future

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MONTHLY REPORT

December 2021

Executive Summary

- Rising real yields, the new COVID variant Omicron and belief about a less dovish Fed post the Powell reappointment saw a tough month for equities.
- We think 2022 will be the year of global reversal in monetary policy with a few central banks sending interest rates higher, lower GDP growth, moderate equity returns, and high volatility with **meaningful correction in equity markets in 1H 2022**. At the same time, **we do not see anything dramatic, as the global economic growth remains above trend and corporate earnings will continue to rise.**
- The economists are pointing to **the risks of a recession being very low before mid-2023 but progressively climbing after.**
- On Dec 15th the FOMC doubled the pace of taper to $30bn a month, which would bring an end to QE in mid-March. Markets are pricing the Fed's first hike in June 2022. What's next? **History shows that in the first year of the Fed's hike, usually, economic growth stays strong, inflation carries on rising, and equities continue to advance.**
- Chinese technology stocks may offer the portfolio downside protection and upside surprise in 2022.
- **We continue to emphasize that quality - is the best strategy in the current business cycle (next 3-7 years) in most macro scenarios.**
- The Technology of the Future Fund had a -4.91% return in November, in line with other major equity indexes and many innovative tech stocks, slightly underperforming the benchmark MSCI World Index (USD), which had a return of -2.30%.
- The two of our holdings delivered impressive returns in November: biotech company **Dicerna** (+82%), taken over by Danish pharma giant Novo Nordisk; and **Arqit Quantum** (+74%), a cyber security company that offers quantum encryption technology. Both companies possess innovative breakthrough technologies and are an example of core holdings of our fund.

Economy and Markets

Fed's hawkish rhetoric was the prime reason for the volatility in November.

In our view, the main factor behind markets' volatility were the statements from Fed Chair Powell, who re-emphasized his more hawkish rhetoric around inflation. Notably, he said that "We've seen inflation be more persistent. We've seen the factors that are causing higher inflation to be more persistent."

The other central theme was the pivot in Fed communications toward tighter policy. Testifying to Congress, Fed Chair Powell made a forceful case for accelerating the central bank's asset purchase taper program, citing persistently elevated inflation and an improving labor market amid otherwise strong demand in the economy, clearing the way for rate hikes thereafter. The monetary tightening expectations have shifted significantly. Investors estimate the first Fed hike will be in June 2022.

What happens when the Fed hikes?

There was excellent data in Deutsche Bank's research (please ask for a copy). Since 1955 there have been 13 hiking cycles, and the median time from the start of the hiking cycle to the next recession is just over 3 years, with the earliest gap at 11 months. Please see the chart below. Given markets are pricing in an initial hike as soon as June 2022, the historical precedents suggest that risks of a recession are therefore very low before mid-2023 but progressively climb after that. If you start counting the hiking cycle from the day of the first hike, then a recession has historically followed 3 to 3.5 years later on average. My personal experience shows that the markets react negatively 6-12 months prior to the recession. So, we should expect to see tome turbulence in the markets by the end of 2022.

Hiking Cycle Timing			Fed Funds Rate (%)			Next Recession	
Start	End	Months	Start	End	Total Hike	Date	Months
15/04/1955	23/08/1957	28	1.50	3.50	2.00	Aug 57	28
12/09/1958	11/09/1959	12	1.75	4.00	2.25	Apr 60	19
17/07/1963	04/04/1969	69	3.00	6.00	3.00	Dec 69	77
01/03/1972	01/05/1974	26	3.50	13.00	9.50	Nov 73	20
01/12/1976	03/03/1980	39	4.75	20.00	15.25	Jan 80	37
07/08/1980	05/12/1980	4	9.50	20.00	10.50	Jul 81	11
02/05/1983	21/08/1984	15	8.50	11.75	3.25	Jul 90	86
16/12/1986	04/09/1987	9	5.88	7.25	1.37	Jul 90	43
29/03/1988	24/02/1989	11	6.50	9.75	3.25	Jul 90	28
04/02/1994	01/02/1995	12	3.00	6.00	3.00	Mar 01	85
30/06/1999	16/05/2000	11	4.75	6.50	1.75	Mar 01	21
30/06/2004	29/06/2006	24	1.00	5.25	4.25	Dec 07	42
16/12/2015	19/12/2018	36	0.125	2.375	2.25	Feb 20	50
	Average	23	4.14	8.88	4.74		42
	Median	15	3.50	6.50	3.00		37

When it comes to markets, there are also interesting patterns. There tends to be solid growth for the S&P 500 in the first year of the hiking cycle, with an average return of +7.7% after 365 days. But on average over the 13 hiking cycles, after the initial period of solid growth the S&P 500 then goes into a period of over a year without a positive return from 9-10 months after the start of the hiking cycle.

So, my conclusion, the first hike by the Fed matters, but the growth stays strong in the first year, inflation carries on rising, and equities continue to advance. By the second year, growth starts to slow, and equities deliver a flat-to negative return. Interestingly, we note that the economists and strategists we read and like are pointing to the high probability of recession coming in H2 2023 (BCA research, Barry Bannister at Stifel, Jim Reid at Deutsche Bank).

So, if history is to be believed, when the Fed first hikes, likely in H1 2022, it will have an effect on the economy and financial markets over the subsequent two to three years. Of course, this time could be different, and this is a very unusual cycle to any we've seen through history. However, although every cycle is different, clear trends have emerged from historical analysis that should not be ignored.

Our view on inflation is unchanged.

We think inflation will slow temporarily in 2022, as goods prices will calm down. Economists are pointing that there is growing evidence of a peaking-out of the supply chain issues as the pre-Christmas buying demand cools off. But in any case, the structural trend for inflation globally is upwards.

Chinese technology stocks may offer the portfolio downside protection and upside surprise in 2022

By contrast to the U.S., E.U., and many developed markets, the focus in China continues to be on an incremental easing of policy. There were two reserve requirement ratio (RRR) cuts within five months. The other reason is that China should prove defensive in any U.S.-originated tapering/tightening scare that has started to hit markets of late. China already tightened its policy, as reflected in the continuing strength of the renminbi against the dollar.

Therefore, we think that Chinese tech stocks may offer the portfolio downside protection and upside surprise in 2022. The upward trajectory will not be straightforward, as there will be a lot of regulatory balancing on the way, but we think we saw investors' capitulation on Chinese tech stocks in October 2021.

Meanwhile as regards the all-important residential property market, the People's Bank of China (PBOC), the China Banking and Insurance Regulatory Commission (CBIRC), and the China Securities Regulatory Commission (CSRC) hosted a joint press conference in early December night detailing some incremental easing. The main message was that the policymakers were signaling that they were determined to prevent the liquidity crisis facing Evergrande and other leveraged developers leading to systemic risks, which was one of the prime concerns among investors in 2H 2021.

Overall, we do not expect anything dramatic in global equity markets in 2022 as the global economic growth remains above trend and corporate earnings will continue to rise. A sustained decline in equity prices or bear markets require a sustained decline in corporate earnings, and this usually happens during economic downturns.

Investment Strategy and Portfolio Changes

We expect a meaningful correction in equity markets in 1Q – 2Q 2022, as valuations are seriously extended while slowing global money growth (especially as the dollar rises) continues to tighten liquidity.

Expectations of monetary tightening are accelerating, as reflected in the damage done to the technology stocks of the U.S. equity market in November. Widely followed, the ARK Innovation ETF in the course of 2021 has declined by 35% from the peak reached in February. It is also worth noting that within the ARKK basket, only four stocks have declined less than 20% from their 52-week high. So, the Technology of the Future Fund YTD performance of -5.41% is explained by the outflows from the tech sector.

We are fully aware of the fact that rising interest rates will weigh on technology stocks in general. **Our main focus is on recession-resistant stocks that will generate alpha in the portfolio in any market scenario** (Biotech stocks are a good example). Our experience shows that the companies where long-term earnings growth is based on innovative breakthrough technologies either become acquisition targets or significantly outperform the markets when they deliver sustainable, strong earnings growth.

We continue to hedge the technology exposure in challenging times with crypto infrastructure stocks, biotech stocks, gold, and cash. In our view, the biotech stocks in our portfolio (15% weight currently) are recession-resistant and may deliver strong performance regardless of what is happening in the markets or the economy.

In November, we sold our position in biotech company **Dicerna** (see the Performance Contributors section for the details). Also, we took the profit and sold our position in **Bitfarms**, a cryptocurrency mining operator, as the share price went ahead of fundamentals in our view. We found it difficult to justify serious mispricing of Chinese tech stocks in our portfolio, which are trading at a rough valuation of 0.30-0.40 cents for the USD 1.0 value. Such a valuation usually corresponds to a deep economic crisis, which is not the case in China. Our experience in 2008 – 2009 and in 2015 shows that at the worst point of emerging markets (EM) sell-off, quality EM companies, which delivered above-average earnings growth, were trading at 0.20-0.30 cents for the USD 1.0 value and were down 60-70% during the correction. So, we are convinced that the further downside in Chinese technology stocks is limited. We have increased our positions in our core Chinese technology holdings, **Pinduoduo**, **Daqo New Energy**. And we have opened a new position in Chinese electric car producer **Nio**.

Monthly performance %

As of 30.11.2021

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2020	-0.11%	+0.79%	-7.86%	+6.45%	+8.51%	+6.03%	-0.17%	+1.51%	-0.22%	-1.39%	+18.08%	+3.22%	+38.07%
2021	+2.05%	+0.35%	-3.43%	+3.61%	-0.57%	+3.70%	-4.32%	-2.38%	-4.22%	+5.11%	-4.91%	-	-5.41%

Performance since inception (Aug 2019): +32.80% vs MSCI World (USD): +40.76%

Technology of the Future Fund performance vs. major equity indexes

	November 2021	YTD 2021
Technology of the Future Fund (USD)	-4.91%	-5.41%
S&P 500 (USD)	-0.83%	+21.59%
NASDAQ 100 (USD)	+1.80%	+25.20%
NASDAQ Biotech (USD)	-3.95%	+0.69%
DJ Stoxx 600 (USD)	-4.53%	+7.69%
MSCI EM (USD)	-4.14%	-6.11%
Micex, Russia (USD)	-10.17%	+18.76%
Shanghai Composite (USD)	+1.11%	+5.21%
MSCI World (USD) (Fund’s benchmark)	-2.30%	+15.31%

Performance contributors

November 2021

Top contributors	Return %	Contribution
Arqit Quantum	+74.03%	+1.56
Dicerna	+82.00%	+3.86

Bottom contributors	Return %	Contribution
Renewable Energy	-25.34%	-1.23
Zogenix	-26.61%	-0.74
Pinduoduo	-25.21%	-0.78

Performance Contributors, November 2021

Two of our holdings delivered impressive returns in November. Biotech company Dicerna (+82%) was taken over by Danish pharma giant Novo Nordisk. We have sold our position. Arqit Quantum (+74%) is a cyber security company that offers quantum encryption technology. The shares went up based on the business development actions of the company. We have sold 50% of our position as we thought that the investors became overexcited about the company's future and the share prices were running ahead of the fundaments. The company's advantage is still only its technology (know-how). There are some impressive sales numbers, but in principle, the company is just at the beginning of the infrastructure development, so we thought that the valuation was not justified even for the unique know-how.

Both companies possess innovative breakthrough technologies and are an example of core holdings of our fund. The performance of these stocks confirms the overall thesis of the low correlation of our portfolio with main equity markets, as 50% of the stocks in the portfolio are considered as "undiscovered values" and are outside the main equity indexes.

The shares of U.S. biodiesel producer Renewable Energy (-25.34%) went down after the company missed analysts' earnings forecasts as a result of an unexpected risk management (i.e., hedging) loss of $18M. We continue to have confidence in the management and the company. Underlying fundamentals on the quarter remained supportive. Robust margins continue to demonstrate the company's advantaged systemwide feedstock flexibility, while newly announced deals for biodiesel in rail and marine fuel sectors highlight the potential for "customer-pull" demand growth in potentially large new markets.

The shares of U.S. Biotech company Zogenix (-26.61%) went down in line with other U.S. biotech stocks (Nasdaq Biotech index delivered -3.95% return in November 2021) despite the fact that insiders are buying the shares of the company. The shares of the Chinese e-commerce disruptor Pinduoduo (-25.21%) went down in line with other Chinese tech following the news that Chinese ride-hailing giant Didi Chuxing decided to delist its shares from U.S. exchanges. We have increased our position in Pinduoduo, which is one of our top picks in the Chinese data-driven e-commerce sector.

Portfolio Structure

November 2021 has proved that our defensive bias since September 2021 was fully justified. After the S&P 500 set another new record high on Aug 30th, 2021, we sold all the overpriced stocks in our portfolio and have stayed away from high-flying mainstream names since then. This has helped to control and minimize the drawdown of the portfolio.

We continue to move forward with caution as one thing is clear to us — volatility will increase in 2022 and we expect global growth to decelerate in 2022 as well. Overall, we are concerned that the global economy and markets are moving in a more worrying direction of higher interest rates, higher inflation, unsustainable amounts of debt, and rising volatility.

We maintain our defensive bias in the portfolio and hedge our tech exposure with an above-average amount of cash in the portfolio, precious metals, and crypto infrastructure stocks.

At the same time, we are fully prepared for the upcoming rise in volatility and correction in H1 2022, and we look forward to using the market weakness in order to increase our strategic positions in companies which will become the leaders in the current business cycle within the next 5-10 years.

Top 5 holdings

Company	Portfolio weight
Axon	6.4%
Baidu	5.4%
Invisio	5.4%
Meituan	4.9%
Renewable Energy	4.8%

Portfolio structure