INVEST

ANNUAL YEARBOOK 2021

ENTERING CHINA'S BOND MARKET

An analysis of China's real estate industry and Huarong's bond prospects

A NEW NARRATIVE FOR GLOBAL EQUITIES?

An outlook into the post-pandemic market regime

LEARNINGS THROUGHOUT THE YEAR

Reflections on all past events throughout 2020-2021

DISCLAIMER

NUS Invest is in no way affiliated or representative of any other company, organization, club or society, and the views presented are solely our own opinions. The author(s) is not a licensed investment advisor. Our services are educational tools designed to assist you in your personal judgement. It is not designed to replace your licensed financial consultants, and nothing in the content shall be constructed to be an offer or solicitation for the purchase or sale of a security. All contents on our yearbook and related services is for informational purposes only, and opinions have been made on a general basis. No consideration has been given to any particular individual or specific investment objectives, financial situations or other circumstances. As such, the content should not be relied upon as authoritative without further being subject to the recipient’s own independent verification and exercise of judgement. The fact that the content has been made available constitutes neither a recommendation to enter into a particular transaction nor a representation that any product described within is suitable or appropriate for the reader. Readers should be aware that many of the products which may be described within involve significant risks and may not be suitable for all investors, and that any decision to enter into transactions involving such products should not be made unless all risks are understood, and an independent determination has been made that such transactions would be appropriate.

CONTENTS

01 INTRODUCTION

02 RESEARCH

03 OUR EVENTS

04 CREDITS

INTRODUCTION

PRESIDENT'S MESSAGE

VISION & MISSION

ORGANISATIONAL STRUCTURE

OUR DEPARTMENTS

PRESIDENT'S MESSAGE

Dear Readers &
Friends of NUS Investment Society

Thank you for your interest in The NUS Investment Society.

Since its founding in 2003, The Society has been the premier student investment organization in NUS. Throughout its 18-year history, The Society has been the leading platform for student investment enthusiasts to unite and expand their financial and investment knowledge, and has empowered generations of members by equipping them with relevant industry skills and providing them with opportunities to build lasting professional connections through meaningful interactions. The Society continues to provide the best experiences for its members and bring a strong value proposition to the wider NUS student community by spearheading various outreach and educational programs, organizing investment workshops spanning a range of asset classes and topics, and consistently attracting the best and brightest to learn and grow together.

The Society's 4 Operations Departments ***(Project Management, Public Relations, Human Resources, Marketing & Communications)*** offer avenues for members to organize and execute flagship events with renowned partner institutions, contribute positively to member welfare, and raise the profile of The Society through various media channels. The Society's 4 Research Departments ***(Equity Research, Fixed Income, Global Macro, Quantitative Finance)*** offer opportunities for members to learn a wide range of investment analysis skills and publish their very own in-depth research reports covering a specific asset class / sector of interest. With a strong value proposition and structured training program, I am proud to share that this year's annual recruitment drive saw a record number of applicants. The Executive Committee worked hard to ensure a fair and rigorous selection process by incorporating multiple rounds of technical tests and interviews. On that note, I am pleased to share that 111 talented and driven members were admitted across a diverse range of operational and research roles suited to their interests and skills.

I am also proud to share that despite the challenges posed by COVID-19, The Society successfully organized one of the biggest University-wide financial literacy events of the year, The ***NUS Invest Fiesta***. The NUS Invest Fiesta saw a stellar line-up of CEOs and senior executives from the financial industry share their experiences and insights with a record number of attendees. Of particular note, The Society was honored to have Minister Lawrence Wong grace the event as a Guest-of-Honor. Given the success of the event, I would like to extend a sincere thank you to all external partners for their strong support.

The ***NUS-SGX Stock Pitch Competition*** is another flagship event of The Society, and this year marks the 7th year that it is being held. The competition serves as a platform for young student investment enthusiasts to showcase their stock analysis and pitching skills to experienced finance professionals from the corporate and academic worlds of equity research and investment management. The turnout for this year's competition was stronger than ever before, and is proof that the student investment community is strong and growing year after year. I am personally very heartened by this year's level of participation, and am confident that this competition will continue to be a key platform for the student investment community to hone its skills and engage with the top minds in the finance industry.

The strength of The Society is not only drawn from the commitment of its members, equal in importance is its partnerships with leading firms and figures in the finance industry, and continued support from the school and fellow students. The success of The Society is a testament to its commitment to excellence, and proof that our shared resolve enables us to accomplish more than we could achieve individually. This Academic Year has been a resounding success for The Society in delivering on its vision of providing premier investor education and honing talented students for the investment and finance world, and I am confident that The Society will only grow from strength to strength going forward. Thank you once again for your interest in and support for The NUS Investment Society.

Thank you!

SEAN JOU CHOO SIONG

President
18th Executive Committee
NUS Investment Society

VISION & MISSION

Our Vision

To be a globally recognized investment club dedicated to providing premier investor education and honing talented students for the investment and finance world.

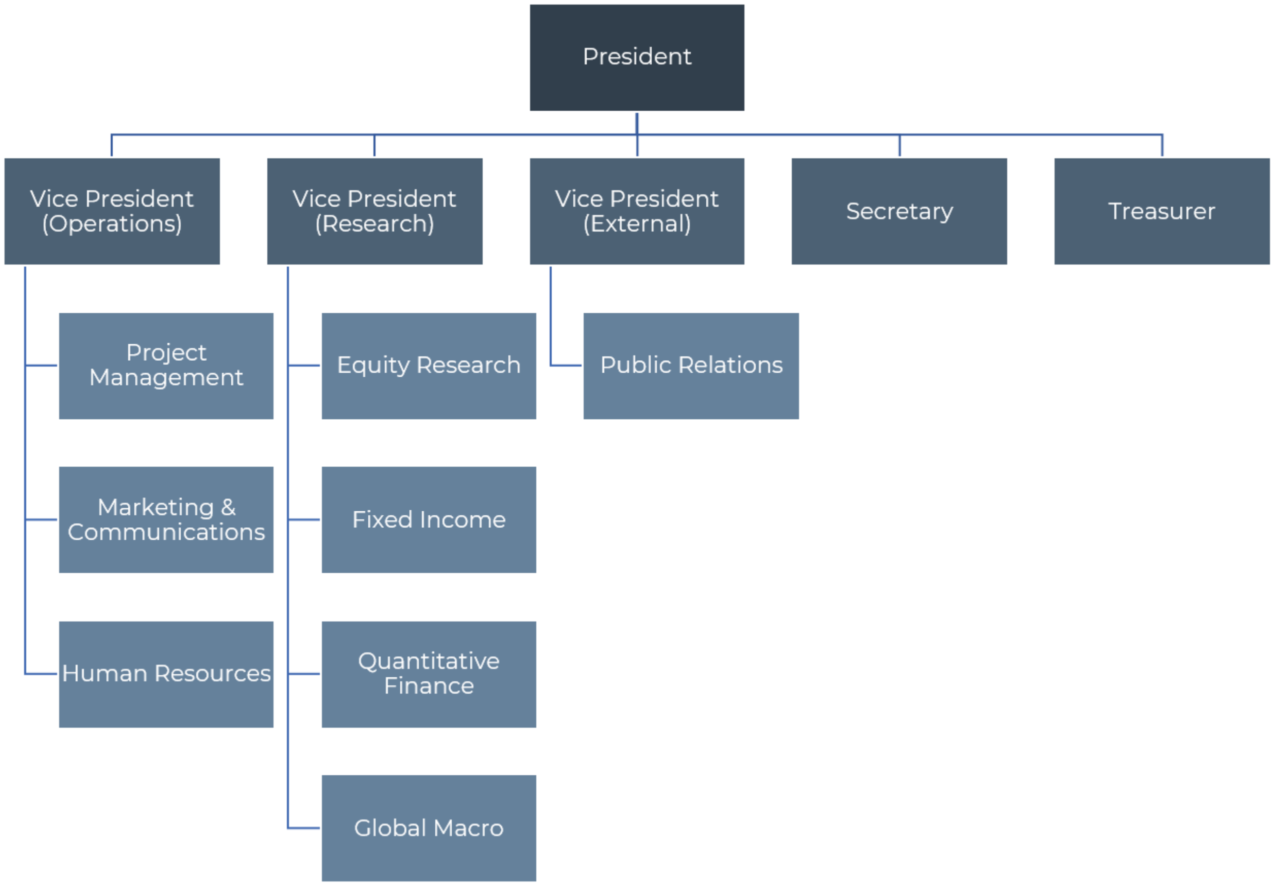
Our Mission

To promote financial literacy and investment knowledge among student investment enthusiasts.

To create networking opportunities and interactions between industry professionals and students.

To empower students dedicated to pursuing a career in finance with skills valued in the industry including the use of financial and analytics software.

ORGANISATIONAL STRUCTURE



OUR DEPARTMENTS

EQUITY RESEARCH

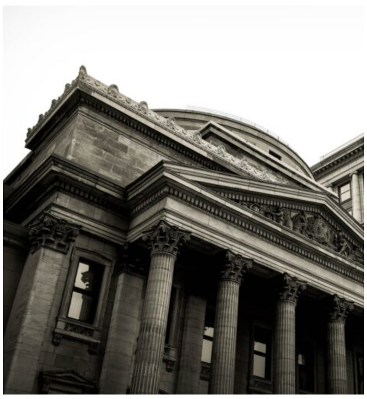
The Equity Research (ER) department seeks to share knowledge and equity analysis in the global equities markets. ER analysts will serve to provide quality reports on stocks and industries to add value to subscribers. The department also aims to kick start its first-ever virtual fund management to allow NUS Invest students to learn and transit to the finance world through experimenting and sharing investment ideas.

GLOBAL MACRO

The Global Macro (GM) department was established to provide a platform for both students and the community to share and discuss trading knowledge, trade management, and global macroeconomic trends which includes the Forex market, central bank policies. GM aims to encourage students to expand and deepen their trading literacy through workshops, weekly research meetings, and various networking events.

QUANTITATIVE FINANCE

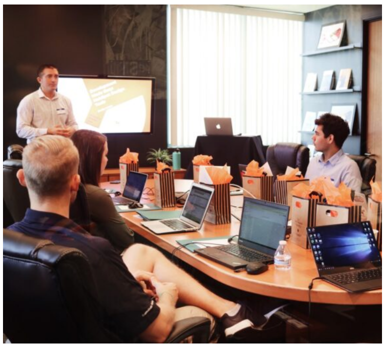
The Quantitative Finance (QF) department seeks to explore quantitative investment and algorithmic trading strategies, grounded in mathematics and statistics. More academically inclined, we keep ourselves at the forefront of academic research whilst conducting our very own in-house research. Away from the ivory tower, a strong emphasis on implementation equips our members with knowledge and skills employed by industry professionals today.



FIXED INCOME

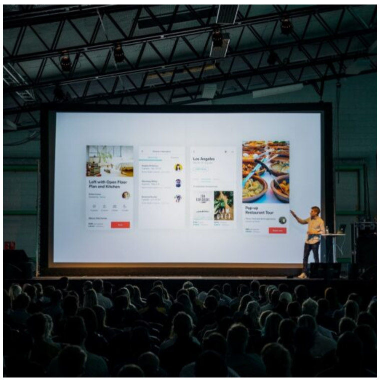
The Fixed Income (FI) department seeks to serve as a platform for students to better understand FI as an asset class and its importance in the world today. The department aims to help students evaluate investments in debt products and the value they can bring to any portfolio. The department also wishes to equip members with a comprehension of fundamental credit concepts and the relevance of macroeconomic trends, through case studies and fundamental analysis on Asian corporate credit issuers.

OUR DEPARTMENTS



PROJECT MANAGEMENT

The Project Management (PM) department aims to bring NUS Invest to the forefront of imparting financial education to the student population in NUS and beyond. By connecting external companies and budding student investors through organising a wide variety of events, we hope to create a productive platform for the sharing of investment knowledge and expertise, and establish strong networks with the industry professionals.



MARKETING & COMMUNICATIONS

The Marketing and Communications (Marcomms) department aims to bring NUS Invest to greater heights by marketing our brand name to external parties. Marcomms actively collaborates with industry professionals of increasing influence to give both internal members and the student community insights to the finance world. Through utmost determination and passion, we serve to spearhead marketing efforts and promotion of events to help the Society achieve its goals and vision.

HUMAN RESOURCES

The Human Resource (HR) department is in charge of constructing and executing policies that enhance our members' welfare. Valuing our alumni, it is also our top priority to foster and maintain strong connections with them, bringing in industry knowledge into the Society and forging a stronger network for our members and the club. We also seek to administrate the Society's Recruitment Drive and relevant events to bring in the best individuals to join us.

PUBLIC RELATIONS

Public Relations department is a newly formed department in 20/21 under the VP External wing, which mainly encompasses partnerships and collaborations with external organisations. By having strong partnerships with key external stakeholders and organisations, the department ensures that the branding and publicity of NUS Invest remains strong. At the same time, the collaborations with external parties also ensures that Invest members have access to exclusive deals and networks.

RESEARCH

FIXED INCOME

GLOBAL MACRO

EQUITY RESEARCH

QUANTITATIVE FINANCE

FIXED INCOME: A TUMULTUOUS YEAR FOR CHINA'S CREDIT MARKETS

As of June 2021, Bloomberg reported USD84.7 billion worth of defaults in Chinese onshore corporate bonds. These defaults came as a shock to investors and pose significant ramifications for debt investors in China going forward.

China is home to the world's second largest fixed income capital market worth USD18.1 trillion (Wilkins, 2021) and its rapid rise to prominence and importance in global financial markets came hand in hand as the government opened up the economy during the late 20th century. Strong, sustainable capital markets are necessary for economic growth and the speed of the development of the Chinese onshore and offshore bond markets highlight these key objectives. More recently, over the past decade, Chinese policymakers have been actively putting in place reforms to improve the markets and limit financial risks which include, reducing the scale of asset management products, promoting inter-agency data sharing, improving regulatory enforcement and coordination, and reducing economic leverage all while increasing the avenues for international investment into the RMB bond market which was once exclusively for domestic investors.

Wthin China's bond markets, local credit ratings for onshore issuances are complex with 9 domestic rating agencies (5 of which are state owned). This results in a conflict as the vast majority of corporate debt in China are issued by entities associated with governments, and SOEs at the state or provincial level which provided these bonds with heavily skewed ratings due to explicit or implicit guarantees. As of August 2018, more than 95% of rated bonds outstanding received ratings of AAA to AA at time of issuance, and just 0.11% received a rating of BBB+ or lower. Figure 1 compares the onshore domestic ratings with hypothetical ratings from the 3 international ratings agencies and there is an estimated 6-notch adjustment to be made. Furthermore, there have been multiple instances of distressed companies not being accurately downgraded until they are on the brink of default which indicates a lack of proper monitoring and oversight amongst local rating agencies.

Interbank Bond Ratings at Issuance

Actual Domestic Rating (At Issue)	# of Bonds	% Total	6-notch Adjusted Rating (Hypothetical)[29]
AAA (Aaa)	5,545	50.1%	A− (A3)
AA+ (Aa1)	2,165	19.6%	BBB+ (Baa1)
AA (Aa2)	2,612	23.6%	BBB (Baa2)
AA− (Aa3)	148	1.3%	BBB− (Baa3)
A+ (A1)	100	0.9%	BB+ (Ba1)
A (A2)	52	0.5%	BB− (Ba3)
A− (A3)	440	4.0%	B+ (B1)
BBB− (Baa3)	11	0.1%	B− (B3)
Total	11,073		

FIG 1. HYPOTHETICAL ADJUSTMENT FOR DOMESTIC RATINGS (SOURCE: SEAFARER, WINDS)

In today's extended low-rate environment, with the 10Y Chinese government bond paying 3.2% vs 1.6% in 10Y UST as of April 2021 (Xu, 2021), RMB-denominated bonds enjoyed a significant yield advantage over its G3 counterparts. Chinese corporate bonds were considered attractive investments with low probability of default and positive real yields. These conditions have resulted in China's domestic bond market swelling to record levels, compressing yields even further and the cracks have begun to show.

The increasing defaults in onshore corporate bonds indicate that for the first time, Beijing has shown that it is comfortable with letting borrowers default on their debt. In late 2020, prominent state-linked chipmaker Tsinghua Unigroup Co. defaulted on USD450 million of dollar debt triggering cross-defaults on another USD2 billion – equivalent to almost two-thirds of the total defaulted debt in China's offshore bond market in 2019 (Wilkins, 2020). Since then, many companies especially within certain highly levered sectors like real estate development have defaulted on debt which presents near term challenges for investors such as increased price volatility and cross-defaults. However, we believe in the long run this is an opportunity for China to shed more colour on the condition and performance of many companies in what is a relatively opaque economy and allow investors to better assess risk especially in their onshore investments.

An End to Chinese Real Estate Developers' Bad Habits

In 2019, total sales of the real estate sector reached almost RMB16 trillion and accounted for nearly 10 percent of China's GDP. Real estate, driven by property sales and construction, is one of the key pillars of the economy with a direct impact on future GDP growth.

In 2017, President Xi stated that houses "are built to be lived in, not for speculation". Similarly, Guo Shuqing, chairman of the China Banking and Insurance Regulatory Commission said in 2020 that the real estate sector was the biggest "grey rhino" especially since it was so deeply intertwined with the financial industry.

In today's extended low-rate environment, with the 10Y Chinese government bond while profits are still recovering after tumbling in the early part of 2020, regulators have taken a tougher stance and support from state banks have been reduced. Two hundred bonds issued by China developers went into default in 2020, up from 150 in 2019, and as many as 499 real estate companies went bankrupt last year. The "Three Red Lines" policy was introduced in August 2020 to force developers to deleverage and defuse risks to China's financial stability (see Figure 2). It also aimed to control housing prices, manage land markets, and lower the cyclicality of the industry. Access to financing depended on the developers' adherence to strict criteria such as 1) a net gearing ratio of less than 100%, 2) cash to short-term debt ratio of more than 1x and 3) liabilities to asset ratio (excluding presales) of less than 70%. According to S&P estimates as of November 2020, only 6.3% of their rated developers could fully comply with all "Three Red Lines". The developers' ability to meet the conditions determined their allowable annual growth in debt.

Color code	Number of red lines breached	Allowable annual growth in debt
Green	0	15%
Yellow	1	10%
Orange	2	5%
Red	3	0%

FIG 2. BREAKDOWN OF THREE RED LINES' COLOUR CODE SCHEME (SOURCE: UBS ASSET MANAGEMENT)

Against this backdrop, developers have responded by cutting prices to boost sales and asset turnover; increased operational cost efficiencies and controlled their debt growth under monthly supervision of the government.

In the long run, smaller developers may be squeezed out of the industry as it consolidates and becomes increasingly dominated by larger players. Just this year, developers such as Sunshine 100 China Holdings, China Fortune Land Development and Oceanwide Holdings have defaulted on their bonds.

Meanwhile, Evergrande, one of China's largest real estate developers and the most indebted real estate firm, has seen its shares and bonds sell off with its stock losing over 40% of its value in the past year. With lessons learnt from Baoshang Bank's bankruptcy in 2020, regulators have also caught on to its opaque dealings with Liaoning-based Shengjing Bank. According to Bloomberg, Shengjing has reportedly RMB140-150 billion in exposure to Evergrande. With just RMB79 billion in Tier-1 capital, liquidity issues at Evergrande could have wiped out Shengjing's entire equity buffer, resulting in a possible bankruptcy. While this saga is still unravelling, the possibility of cross defaults serves as a reminder of the systemic risks involving real estate.

Not all hope is lost for the real estate sector. Spinning off their property management businesses has been a bright spot for real estate developers. Country Garden's property management affiliate, CG Services, has seen a 129% increase in share price in the past year. CG Services' market capitalisation at HKD 255 billion also exceeded Country Garden's market capitalisation of HKD 211 billion as of 11 June 2021. During the stringent lockdown last year, property management firms demonstrated their value-added services by keeping residents safe and providing recreational activities This burgeoning asset-light business model with stable recurring cash flows make for a less risky option for investors wanting exposure in China's real estate market.

It's Getting Really Bad for Chinese Bad Banks

China's 'bad banks' or Asset Management Companies (AMCs) were set up in 1999 to tackle the build-up of Non-performing Loans (NPLs) in the Chinese financial system. The four banks are Huarong, Cinda, China Orient and Great Wall. Over the years, there had been substantial changes in the business model of the AMCs, including an expansion to non-core activities such as investment banking and securities trading, which hampered their ability to perform their original function of absorbing NPLs.

In 2018, Huarong's then-chairman Lai Xiaomin was found guilty of bribery, receiving RMD1.79 billion (USD281 million) in illicit payments. More recently, concerns surrounding the bank's financial position surfaced after its inability to release its 2020 financial statements by the March 31 deadline and rumours of potential restructuring.

Beijing's plan to overhaul the firm remains uncertain, but there have been reports that agreements have been reached between Huarong and state-owned banks to ensure repayments until the end of August totaling ~USD2.5 billion. This has caused volatility in the firm's onshore and offshore bonds. Near-term bonds have shown more resilience indicating that investors still believe that a near-term restructuring is unlikely, but larger haircuts are seen in bonds maturing from 2022 onwards (see Figure 3).

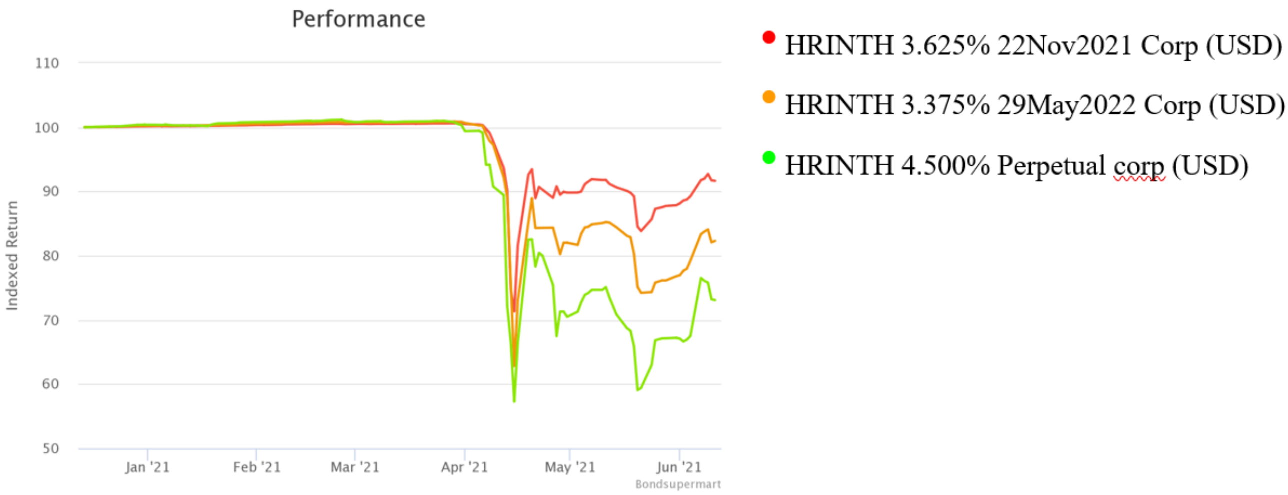


FIG 3. HUARONG'S BOND PERFORMANCE CHART

Other AMCs are struggling with similar challenges, with nearly USD50 billion in outstanding dollar bonds. China Huarong has USD21.7 billion outstanding, China Cinda Asset Management Co. has USD18.5 billion, Orient Asset Management China Co. has USD5.3 billion and China Great Wall Asset Management Co. has USD4 billion. Of these, USD4.9 billion needs to be repaid in 2021.

Presently, valuation of bonds issued by AMCs rely heavily on the assumption of state support. Given its quasi-sovereign status and investment grade rating, Huarong's bonds were popular among institutional investors like BlackRock Inc., Goldman Sachs Group Inc. and Allianz SE. In the event that Beijing decides not to bail out Huarong and other bad banks, this could result in a dramatic reassessment of the credit risk associated with Chinese SOEs.

GLOBAL MACRO: U.S. FEDERAL RESERVE COMMENTARY: HOT INFLATION SUMMER

In the aftermath of the global COVID-19 pandemic, the markets are awash with liquidity as central banks around the world adopted ultra-loose monetary policies to cushion the economic shock from the pandemic and ensure sustained support in their road to recovery. Last year, we witnessed the United States Federal Reserve cut its benchmark federal funds rate to 0.00-0.25% and employ a large-scale asset purchase programme. With the Fed's balance sheet ballooning to above USD$8tn in June 2021 under this QE (quantitative easing) Infinity regime, every market participant is keeping a close eye on the Fed's next steps.

The current accommodative environment in the U.S. has resulted in M2 money supply skyrocketing to all-time highs, reaching USD$20.1tn in April 2021. In turn, the country is witnessing an immense surge in inflation on the back of pent-up consumer demand and supply chain constraints as the economy reopens, reaffirming the classic macroeconomic relationship between money supply and inflation. The core CPI (Consumer Price Index) print in April of 0.9% overshot expectations of 0.3% and can be interpreted as a 10-sigma event based on the last 35 years of history (see Figure 1). Considering the Fed's dual mandate of inflation and unemployment, market participants are increasingly anxious of the Fed's timeline in tightening accommodative measures.

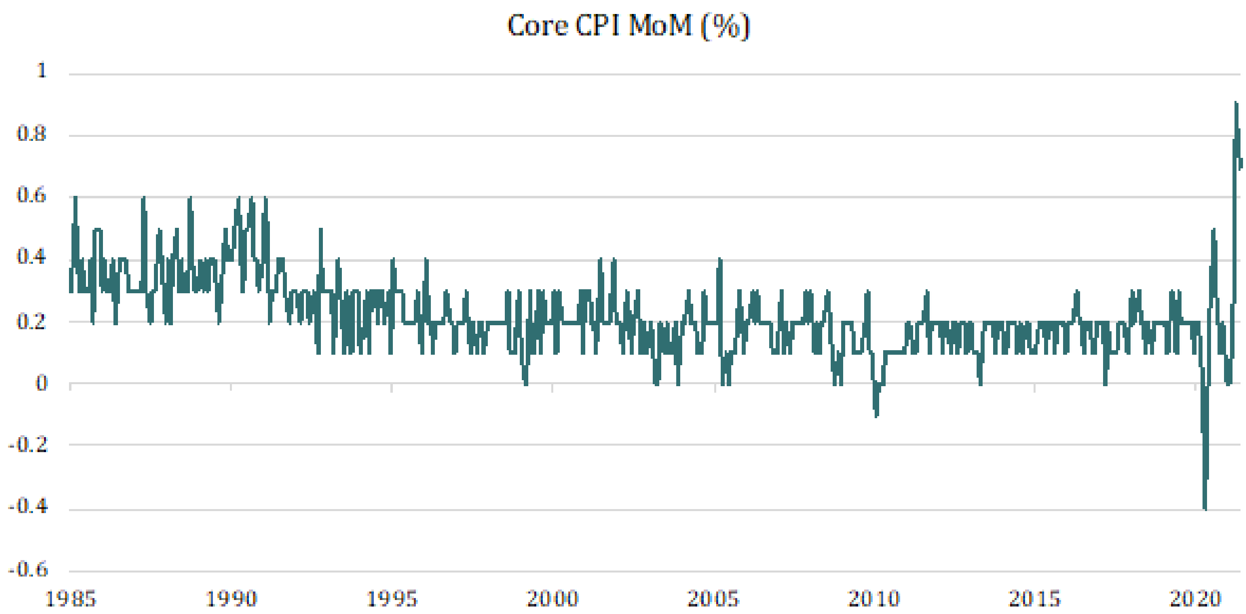


FIG 1: CORE CPI MOM GROWTH (SOURCE: BLOOMBERG)

Despite the red-hot inflation print and improving employment data in the U.S., officials from the Fed have consistently jawboned the concept of 'transitory inflation'. The Fed's assessment of inflation has been focused on the fact that the numbers are affected by pockets of sharp price increases in areas that were hardest hit by the pandemic. Moreover, this bout of Covidflation is driven by supply chain bottlenecks that occurred during the pandemic and significant increases in commodity prices. The rising prices for producers have then passed along these increases to end consumers. The Fed has maintained this transitory rhetoric and expects it to ease once the recovery matures.

Most notably, the Fed's shift to Flexible Average Inflation Targeting, a new monetary framework introduced last year, was an effort to break the relationship between improving economic data and expectations of monetary tightening, especially during periods of an output gap. Policymakers have come out to show their willingness to tolerate an overshoot of the 2% inflation target to achieve average 2% inflation and maximum employment.

While inflation has spiked up, the markets have not reacted correspondingly when looking back at historical figures. Even though the CPI data releases in April and May have far exceeded expectations, the 10Y UST (U.S. Treasury) yield has continued to trade sideways and have seemingly ignored the surge in inflation (see Figure 2). The relationship between CPI and the 10Y UST yield suggests that the current levels are mispriced by more than 300bps.

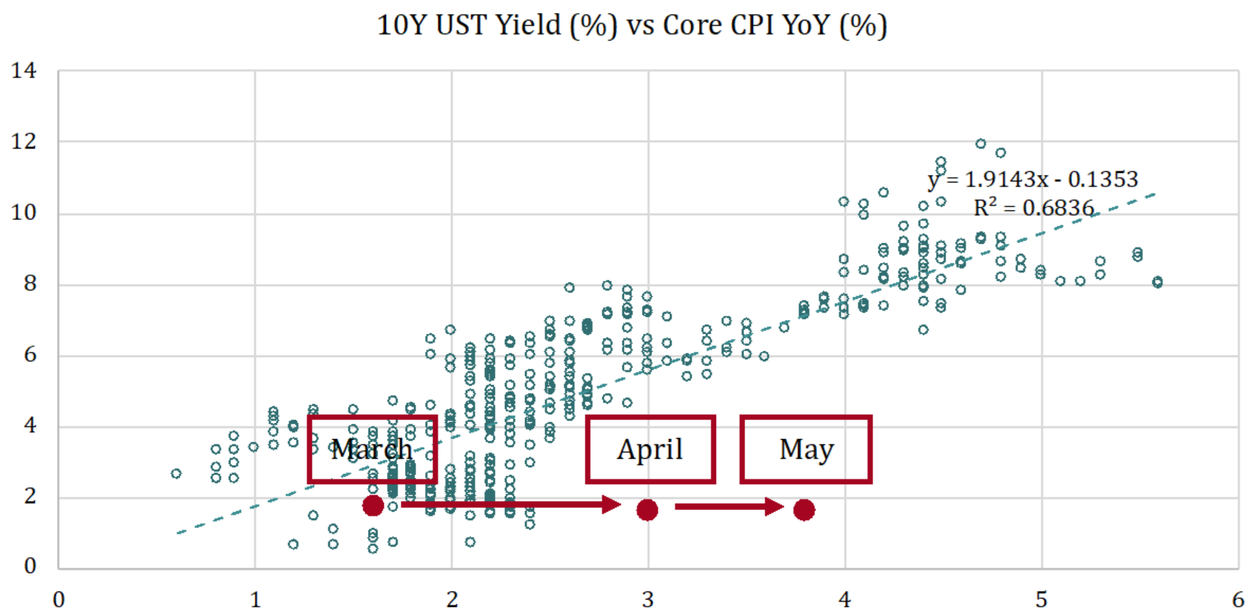


FIG 2: 10Y U.S. TREASURY YIELDS VS. CORE CPI YOY GROWTH (SOURCE: BLOOMBERG)

This phenomenon can be interpreted two ways. Either the markets are completely aligned with the Fed's narrative that inflation is transient, or the markets have already priced in the effect of elevated inflation in the belly of the U.S. yield curve. We believe that the absence of a reaction in rates can be attributed to the market participants' reluctance to engage in another leg up as they wait for additional information from the Fed or inflation data. Our view is that the 10Y sector of the yield curve is currently priced near the lower bounds and we continue to look for it to reach near the 2% mark by the end of this year.

The June FOMC meeting delivered a hawkish surprise and caught investors off guard. Most notably, the Fed pencilled in a significant shift in their renowned dot plot, with the median showing two rate hikes by the end of 2023. 13 out of 18 FOMC members expect a rate hike in 2023, with 11 of them expecting two hikes (see Figure 3). We only saw 7 members projecting at least one rate hike in 2023. The Fed also increased its GDP forecast (2021: 7.0% vs. 6.5% previously, 2023: 2.4% vs. 2.2% previously) and PCE inflation forecast (2021: 3.4% vs. 2.4% previously, 2023: 2.2% vs. 2.1% previously). The central bank also raised its IOER (Interest on Excess Reserves) by 5bps to 0.15% and reverse repo rate by 5bps to 0.05%. The less dovish tone was reinforced by the Fed Chair Jerome Powell as he started the process of preparing markets for policy tightening. Ultimately, the June FOMC meeting has signalled to the markets that tapering discussions are definitely beginning, compared to the May meeting where they were merely talking about talking about tapering.

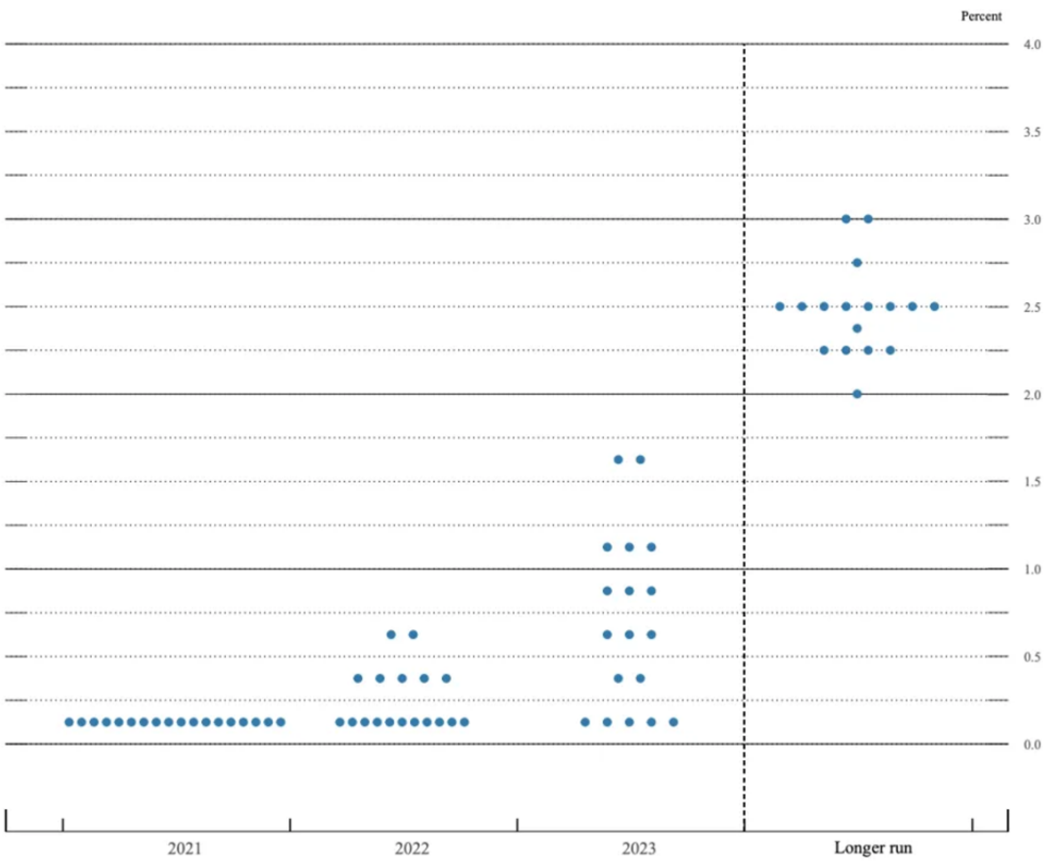


FIG 3: JUNE FED DOT PLOT (SOURCE: FEDERAL RESERVE)

On the inflation side of the equation, Fed Chair Powell reiterated his case that inflation should gradually return to target as "transitory supply effects abate". Despite the Fed increasing its PCE expectations, markets continue to indicate that they have fully bought the transitory rhetoric as previously mentioned. This can be observed in the slow grind downwards in the ZCIS (zero coupon inflation swap) levels from a month prior to the June FOMC meeting (see Figure 4). We recognise the tail risks of a significantly higher inflation over the medium-term, however wages and prices will need to soar higher to support this view. Albeit said, Fed Chair Powell has stressed that the central bank will respond as appropriate if inflation continues to rise excessively. We believe that investors should therefore reposition into the summer for progressively rising output rather than accelerating inflation. Gold bulls who have gathered in recent months to hedge against the hot inflation figures should expect their spirits to be dampened, as we reckon that real rates should eventually rise as nominal rates adjusts upwards and inflation cools off.

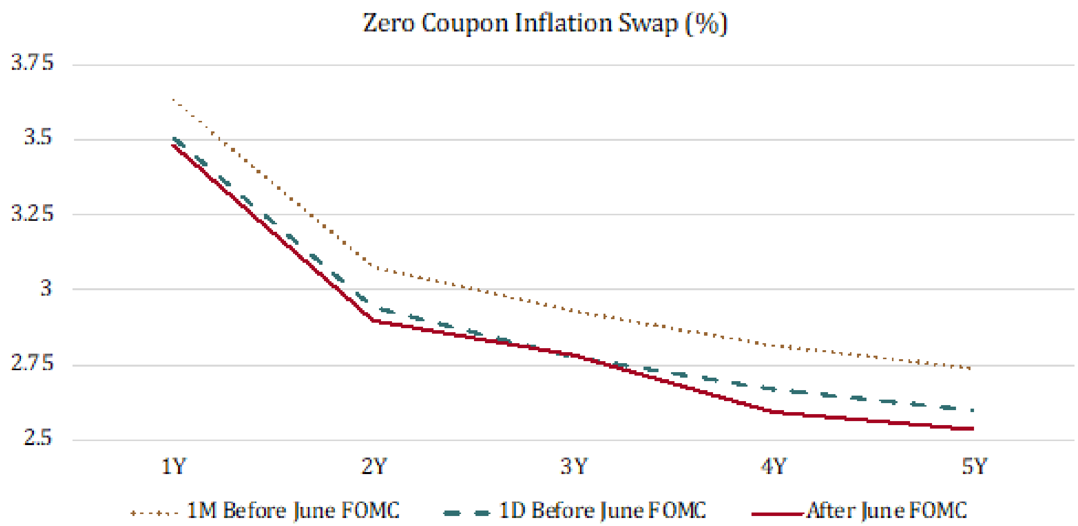


FIG 4: ZERO COUPON INFLATION SWAP (SOURCE: BLOOMBERG)

In essence, we reckon that the Fed is primed for normalisation. While we expect the Fed to sustain its 'open mouth operations' to ensure a broad and inclusive recovery, we think that the Fed will formally announce tapering in December, and we should look for stronger signals during the annual Jackson Hole summit in August or the September FOMC meeting.

The hawkish tilt has reversed the broad USD weakness trade and provided a firm floor for the USD going into the summer months. Rather than catching a falling knife or buying the dip in the USD strength post-FOMC, we prefer to express greater nuance by being selective of the crosses. In the G10 space, we think that low-yielding currencies such as JPY and CHF should face downward pressure. While we favour currencies such as GBP, on the back of a hawkish BoE (Bank of England) and long anticipated reopening of the British economy, and AUD, on the back of a possible hawkish shift in the RBA (Reserve Bank of Australia) and the currency being universally viewed as undervalued given the resurgence in the commodity complex.

As we look past the summer months, we expect further unwinding of the crowded reflation trade – UST 5s30s steepeners. Instead, we believe that bear flatteners look to be the preferred option once the markets receive further signposts from the Fed regarding its tapering timeline. Another trade we would like to recommend is to receive the belly of the UST 5s10s30s butterfly. During easing cycles, the curve bull steepens and widens the spread between the 5s and 10s, while 30s trade at a small spread to 10s given that inflation is not an issue. This keeps the 10s cheap. During tightening cycles, the curve bear flattens, and rising inflation increases the spread between 10s and 30s. As such, the belly richens on the fly in a selloff (see Figure 5). This butterfly position allows investors to benefit from the full twist in the U.S. yield curve, with the current steeper front-end and flatter back-end.

FIG 5: UST 5S10S30S (SOURCE: BLOOMBERG)

EQUITY RESEARCH: A POST-PANDEMIC MARKET REGIME

Over a year has passed since the onset of the pandemic and the subsequent market correction that saw global equities plunging from early record highs in one of the worst crashes seen in history (the S&P500 plunged 34%). We live in uncertain and interesting times – and the pandemic has brought to light critical flaws in the economic system we live in today. The scale and extent of the economic standstill in early 2020 saw modern monetary theory and the direct monetization of massive fiscal spending go from theory to practice without debate and at a pace so rapid that by February 2020, a global total of USD 3.9 trillion or 6.6% of global GDP had been created via Quantitative Easing ("QE"). Monetary inflation – the expansion of every form of money unlike anything ever seen in history, would soon characterize the markets in times to come.

INFLATION – TRANSITORY OR NOT?

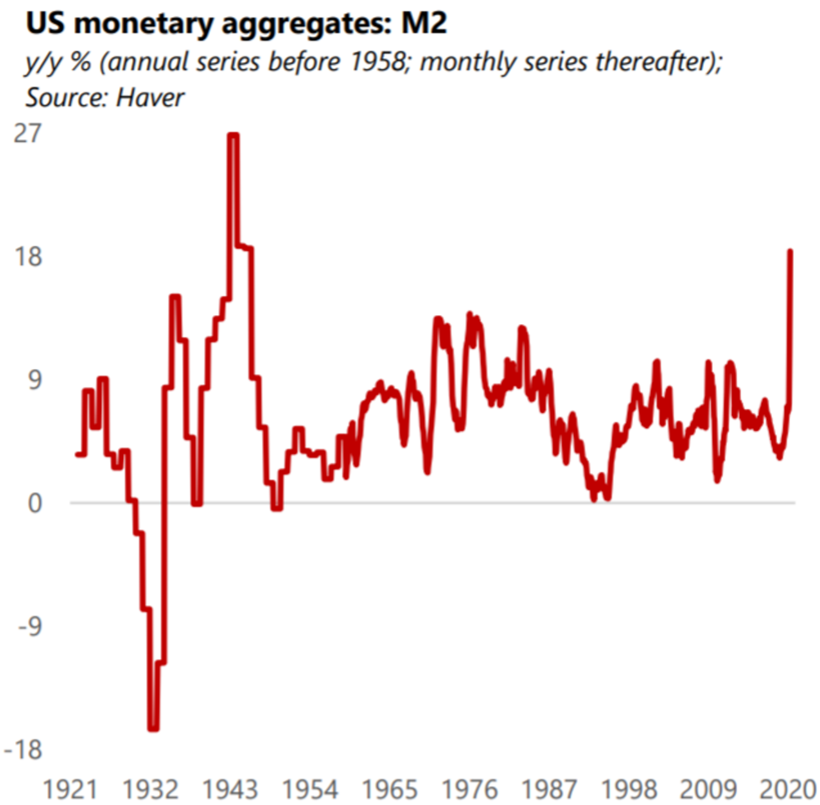


FIG 1: SHARP INCREASE IN US MONETARY AGGREGATES

The ensuing sharp increase in monetary aggregates (see Figure 1) is a timely reminder of Milton Friedman's statement: "inflation is always and everywhere a monetary phenomenon".

Will monetary expansion generate inflation? The market has expressed its views with rising inflation expectations as well as labour and material shortages, with commodity prices at record levels and breakeven inflation rates close to the peaks of their historical bands.

We believe that inflation remains a key risk in the short term and central bankers' reassurance of "transient" inflation has helped maintained investor sentiment for risky assets.

In the medium to long term, monetary expansion alone is insufficient to generate inflation (see Figure 2). Looking back in history, we are reminded of Japan's debt-deflation and US's failure to stoke inflation post 2008.

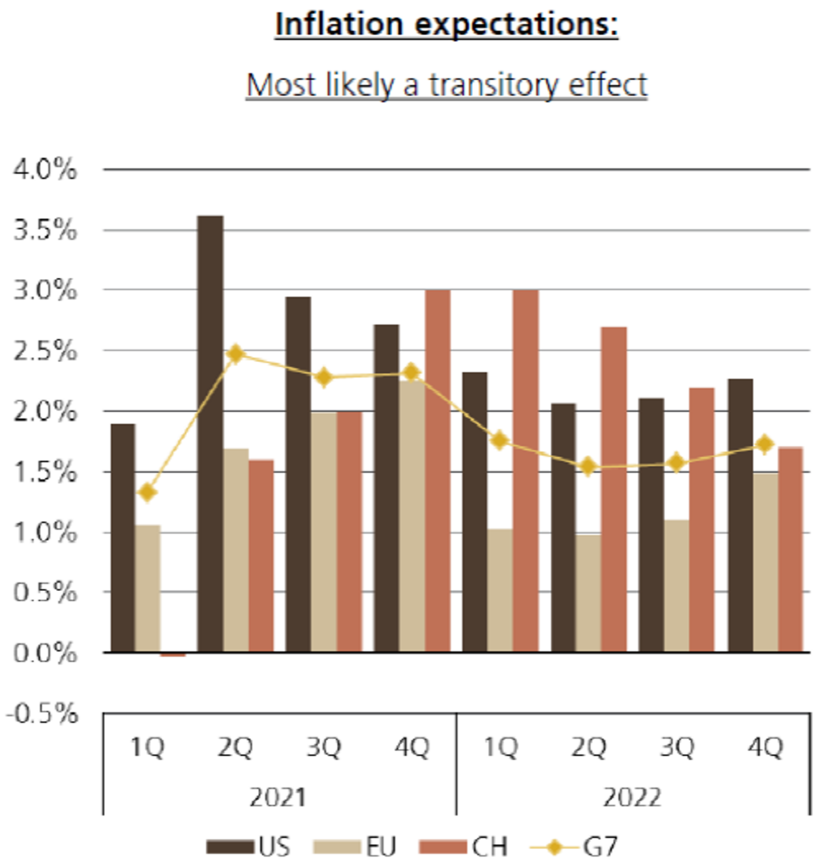


FIG 2: INFLATION RATES SHOWING A TRANSITORY EFFECT

We believe that the global economy should begin to see returns on investments in digitalization and technology spurred by the low interest rates and accelerated by the pandemic. Such developments have already begun changing the way we live, work, and also invest. Technological advancements have and will continue to be deflationary in nature with falling cost curves and increased productivity.

A New Narrative for Global Equities

In 2020, investors worldwide grappled to make peace with the decoupling of fundamentals from equity valuations. In hindsight, not much has changed. Despite Consumer Prices reporting at 5% (exceeding 4.7% consensus) on 9 June 2021, The S&P 500 reached a new record level of 4,239. In fact, treasuries rallied alongside rising inflation. We view such market reactions as timely reminders that the modern investor must first use prices as guidance before gradually attempting to understand new fundamentals driving markets in these uncertain times.

The aforementioned macro developments (QE) and investor expectations have enriched valuations worldwide. For value companies within consumer discretionary sectors, the narrative surrounds sales recoveries bolstered by a pivot to omnichannel platforms. Worldwide, we see SaaS companies maintaining optimism across platforms which experienced strong MAU and paid-user growth. However, tech and industrial companies remain fraught with supply chain issues and the rising prices of raw materials. Moving into 2H21, we foresee the challenge remains for richly valued companies to beat high bases set in 2020, and a possible revision of peak EPS growth rates.

The challenge now lies in finding strong companies that can continuously realise these narratives in an environment of rich valuations. Inflation consistently has shown positive coefficients for sales and negative coefficients for margins. Conversely, the boost to nominal sales growth through rising prices typically more than offsets inflation-driven margin compression. We believe that the winners will be companies that are actively engaging in cost-saving strategies to stave off this effect, or to diversify legacy businesses to reduce overheads through digitalising their business models, thereby reducing labour costs.

With the return to normalcy, the recovery phase where equities experience rapid recoveries in a short span of time seems to be behind us. At the current stage of the cycle, our short-term view is to overweight equities with an emphasis on fundamentals especially for companies that have delivered earnings growth in line with market expectations. We favour companies in the digital payments sector that have demonstrated share price stability through 2020 and are poised to benefit from the pandemic-accelerated uptake in card payments globally.

Our view for the medium term is that the ramp up of vaccine deployment across developed countries around the globe has contributed to better risk sentiment on developed markets as economies re-open their borders. As such, we expect cyclical recovery to gain traction as vaccination programmes gains further headway. Hence, we have adopted an overweight equities stance with a focus on Asian equities which is poised to lead the cyclical recovery in view of the high vaccination take-up rate in Asia. We favour the semi-conductor and memory sectors in line with our cyclical recovery outlook.

When the Music Stops

With markets reacting positively to any form of announcement, valuation-defying assets selling like hotcakes (Non-fungible tokens) and what seems to be an unstoppable ballooning of asset prices, we seek to understand the sentiments that drive the prices we see and experience on our portfolios. However, we concurrently endeavour to understand the longer-term, traditional fundamentals of the assets we do invest in. Given the impossibility of predicting “the top”, we see fundamentals as a life vest. Time and again, markets have rallied and collapsed, and it is not “if” but “when” the market will correct – and when that happens, we trust that cashflow generation will soon become the talk of the town once again.

QUANTITATIVE FINANCE: U.S. FEDERAL RESERVE COMMENTARY: HOT INFLATION SUMMER

The Quantitative Finance Department uses quantitative methods involving mathematics, statistics, and computer science to analyze problems in Finance. Over the past few years, the Quantitative Finance Department has been devoted to utilising a wide range of tools in analysing the financial market, aimed at solving problems of varying natures. There are two roles in the Quantitative Finance Department, Quantitative Researcher and Quantitative Engineer. The two roles work together on various interesting projects and research, which covers wide ranges of topics and areas in Quantitative Finance. This write up serves to expound on some of the research and projects conducted recently.

One project carried out last year was on researching trading alphas on the foreign exchange market via the Long Short Term Memory (LSTM) deep learning model. Renowned for its ability to accurately predict time-series data, LSTM has promising potential in analysing the pricing movement in the foreign exchange market. By training the LSTM with past real-time data, the model can be used to infer the most likely pricing movement in the following time series, which serves as a natural signal for entering and exiting positions. With a fine-tuned threshold for profit before quitting the position (the Take-Profit Level) (see Figure 1), The alpha model produced an exuberant Sharpe Ratio of 1.69.

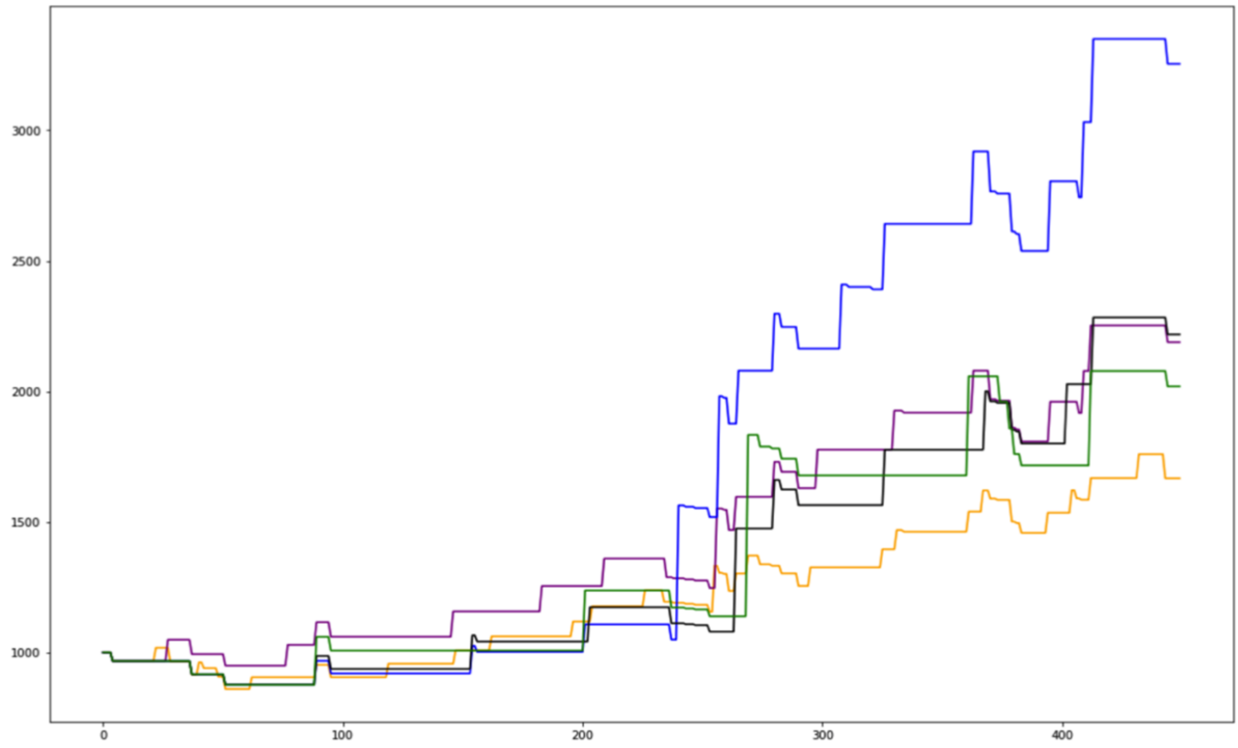


FIGURE 1: TAKE-PROFIT LEVEL COMPARISON

Apart from that, another interesting study is on GARCH Volatility Modelling with Applications in Option Trading. Volatility Modelling is a popular topic which involves intensive mathematics and statistics. An accurate forecast can be applied to many different areas such as pricing. The research studied on using the General Autoregressive Conditional Heteroskedasticity (GARCH) model to forecast volatility, and gave detailed examples and results on the forecast. After that, its applications in option trading are studied. In addition, the pros and cons of GARCH model are also discussed. The research gives a great insight of volatility modelling using GARCH and how it can be applied to option trading.

To summarize, the research and projects carried out have proved the strength of quantitative tools in the analysis of the financial market. From statistical analysis to deep learning, from alpha searching to risk control, quantitative strategies have led to a plethora of significant results in many applications. With the rapid development in machine learning technologies and the exponential increase in the amount of data, it is not hard to foresee even more inspiring findings in the department’s research.

OUR EVENTS

NUS INVEST ACADEMY 2020

FUNDAMENTAL ANALYSIS & FIXED INCOME 101

FOREX & QUANTITATIVE FINANCE 101

NUS INVEST FIESTA 2020

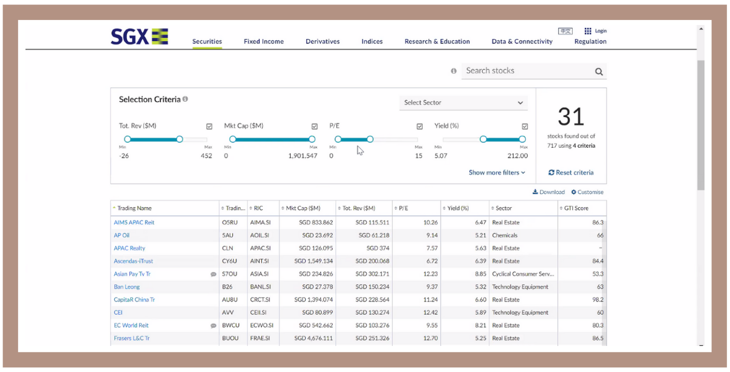
NUS-SGX STOCK PITCH COMPETITION 2021

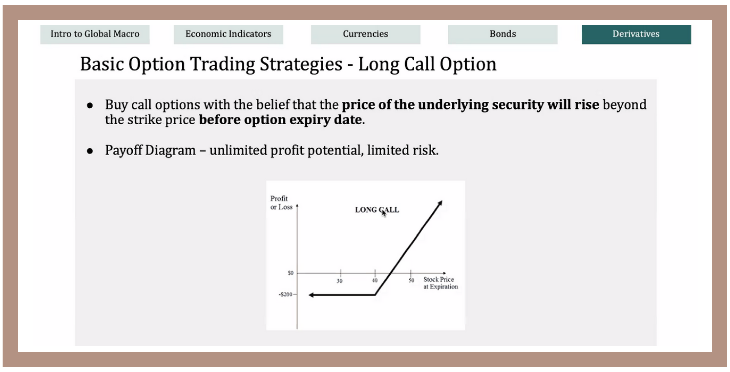
COMBINED MEETINGS

NUS INVEST COHESION

NUS INVEST ACADEMY 2020

Written by Tan Jin Wei Darien, Marcomms Executive





Invest Academy made its inaugural launch in 2019 with the singular objective of equipping all members of the NUS Investment Society with practical knowledge and experience in Equity Research, Macroeconomics, Quantitative Finance, Fixed Income, and Portfolio Management. Helmed by the Directors and Deputy Directors of each respective department, this flagship training programme is exclusive to all members of the NUS Investment Society. To date, over 200 Invest Society members have completed this intensive two-weekend long programme, priming them with diverse skillsets and knowledge necessary to excel in the future workplace. Invest Academy serves as the foundation for knowledge sharing and networking across the various departments, manifesting the Investment Society's mission of promoting financial literacy and investment knowledge among student investment enthusiasts.

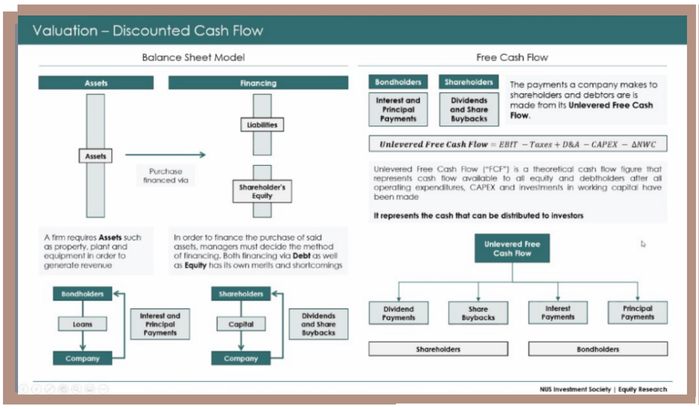
In the first session of Invest Academy, members will start with a deep-dive look into equity research and fixed income. Within equity research, concepts that will be covered include the assessment of a company's growth, profitability and valuation to generate alpha. The concept of bonds, key terms, credit analysis, bond pricing, types of bonds, and bond portfolio strategies will be examined under fixed income investing.

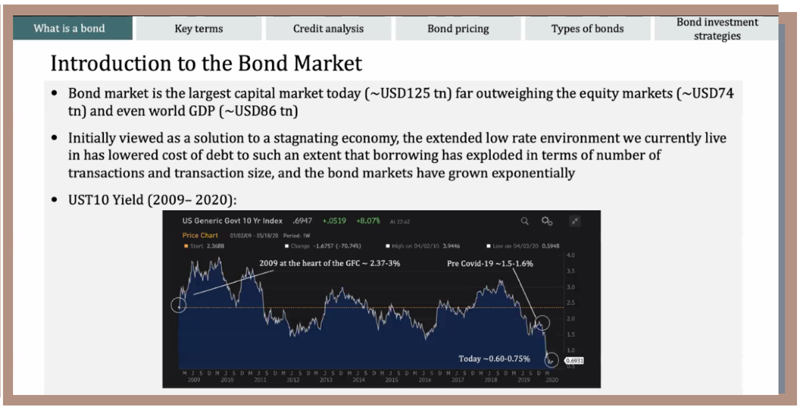
In the second session of Invest Academy, Global Macro investing will be introduced. Global Macro strategy is an investment and trading strategy that is based on the interpretation of large macroeconomic events on the national, regional, and global scale. Additionally, members will also have an inside look into the arcane field of Quantitative Finance through the mathematical concepts of a discrete variable, binomial distribution, geometric distribution, Poisson distribution, continuous variable and normal distribution.

Invest Academy has been conceptualised to promote holistic growth in investment knowledge for new members. Each department has also compiled a list of recommended readings for investors who are keen on expanding their knowledge of specific types of investment. Heavily influenced with theories and strategies perpetuated by thought leaders like Joshua Pearl, Joshua Rosenbaum, Ray Dalio, Greg Gliner and Victor Zhou, complex principles are condensed and distilled into easy to digest bite-sized pieces. Indeed, even in the world of investing, an investment in knowledge pays the best interest.

FUNDAMENTAL ANALYSIS & FIXED INCOME 101

Written by Lee Yu Qing, Marcomms Executive





On 30th January 2021, NUS Investment Society held its second Fundamental Analysis and Fixed Income Workshop. Due to the Covid-19 situation, the workshop had to be held online. Nonetheless, the workshop was still well-received with a breakthrough turnout of over 100 participants consisting of NUS Students and the general public.

Conducted by NUS Investment Society's very own Equity Research and Fixed Income Departments, The Fundamental Analysis and Fixed Income Workshop aims to equip participants with financial and investing knowledge.

Together, the directors shared about an array of topics, ranging from Basic Financial Modelling, Valuation Methods, Bonds in Portfolio to Key Fixed Income Concepts.

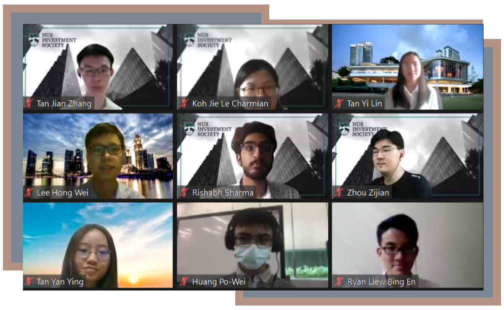
During the workshop, the directors discussed about several basic financial key concepts so that participants could gain a better understanding of the topics. Real-life case studies were also used to make the concepts more relevant and engaging. In particular, the topic that caught the attention of participants was none other than the talk of the town - GameStop's stock price. As of 30th January, GameStop's stock price had seen a dramatic rise despite being a failing business. Through the example on GameStop, participants were educated on the concept of short squeeze and valuation.

Additionally, the directors were eager to share investing tips with participants. Investing tips include the way equity research report analysis should be done, and key indicators to look out for when screening stocks. Such tips are exceptionally useful for those who are new to investing but do not know where to begin.

All in all, the workshop was an eventful one! We would like to thank the Equity Research and Fixed Income departments for being so willing to share their financial insights and knowledge during this event. With this, we hope that the participants have thoroughly enjoyed the workshop and that it will inspire them to kickstart their finance journey, be it by keeping abreast of financial news or starting to invest.

FOREX & QUANTITATIVE FINANCE 101

Written by Tan Yi Lin, Marcomms Executive



*"Presenters also demonstrated how **stock charts and candlesticks** are read and what are the **different technical indicators** one may use whilst trading FX."*

The FXQF101 workshop is the first of two 101 beginner workshops held this academic year. Open to both NUS students and the general public, this workshop has helped interested members of the community kickstart their journey in learning more about finance, specifically in areas of foreign exchange (FX) and quantitative finance (QF).

During the informative session, our directors from the Global Macro department shared with our workshop participants the basics to FX trading and imparted knowledge on how to conduct basic fundamental and technical analysis. With a better understanding of how price movements are forecasted using information obtained from market news and economic data released, participants can apply the acquired knowledge to profit from trading FX. Apart from teaching how one can conduct fundamental analysis, the presenters also demonstrated how stock charts and candlesticks are read and what are the different technical indicators one may use whilst trading FX. Lastly, the first half of the FXQF101 workshop concluded with the sharing of trade ideas by the directors which served as valuable insights for the participants.

Following which, the directors from the Quantitative Finance department opened our eyes to the inner workings of the lesser-known part of finance, quantitative trading. Kickstarting the second half of the session, the speaker explained how trading strategies are constructed and improved on. The presenters then introduced how factor analysis is conducted to ensure that only good factors that almost always correctly predict stock price movements are used.

The last portion of the session involved a deep dive into how an alpha, an automated predictive model, is designed to forecast prices of financial instruments like stock prices. Before the session ended, the speaker showcased how these models are evaluated by running simulations to backtest them before using them to trade in large numbers in the live market.

Besides the attractive prizes our lucky draw winners walked away with, we are sure all our FXQF101 workshop participants left the session with a deeper understanding of how FX trading and quant trading works, and are well-equipped with what it takes to kickstart their journey in finance.

We hope that these beginner workshops will continue to not only groom future investment professionals, but also promote financial literacy for the wider community.

NUS INVEST FIESTA 2020

Written by Tan Yiwei Ivan, Marcomms Executive

The 3 days of NUS Invest Fiesta 2020 was indeed insightful and educational, covering a wide range of topics from personal finance, to macroeconomic and geopolitical trends, as well as industry exposure.

NUS Invest Fiesta Day 1: Personal Finance

Mr Michele Ferrario, co-founder and CEO of Stashaway, and Mr Kenneth Lou, co-founder and CEO of Seedly, shared with us tips on investing in the modern age. Underscoring both sharing sessions was the importance of diversification according to our risk tolerance and goals: across asset class, geographical regions and even over time. With a longer-term goal over decades, it would be advisable for investors to be risk seeking and allocate more higher risk investments in their portfolios. This will be a useful foundation for us students from which to start planning our finances going forward.

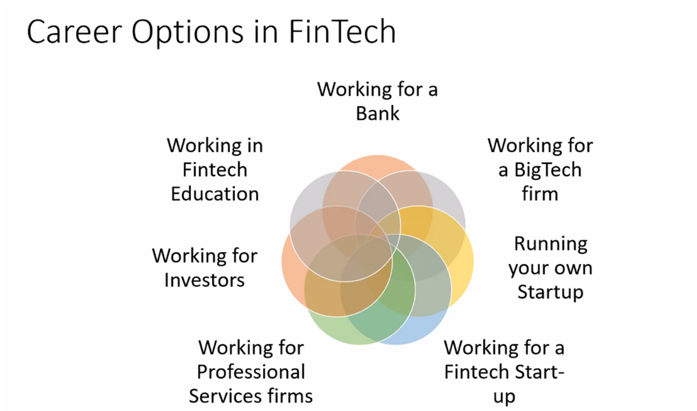
NUS Invest Fiesta Day 2: Investment Symposium

Our Guest-of-Honour Mr Lawrence Wong, Minister for Education, graced the event, alongside esteemed industry professionals Mr James Cheo, Chief Market Strategist from HSBC Private Banking, Mr Johnson Chen, CEO of CapBridge, Mr Timothy Tay, Head of APAC Credit Research from UBS Global

Wealth Management, and Mr Zubin Dabu, Market Head and Chairman of ESG Forum at Bank of Singapore. With Professor Lee Hon Sing, Finance Professor at NUS Business School facilitating the discussion, our speakers shared with us their perspectives on regional and global market trends, especially in the context of COVID-19, highlighting key growths in the digital economy of South East Asia and ESG investing. Participants also had a fruitful chat with the speakers during the networking sessions after.

NUS Invest Fiesta Day 3: Industry Exposure

Ms Tan Su Shan, Managing Director and Head of Institutional Banking at DBS, shared with us her story and tips on how to be adaptable in the digital age of finance and banking through lifelong learning. Mr Syed Musheer Ahmed, Founder and Managing Director of FinStep Asia and Co-founder and Board Member of Fintech Association of Hong Kong, educated us on the exciting FinTech industry and its development both in Hong Kong and around the world. Their valuable insights about the importance of keeping ourselves technologically savvy will undoubtedly better prepare us for the fast moving financial careers of the future.



NUS INVEST - COMBINED MEETINGS

Written by Shawn Neo, Marcomms Executive

*"It's okay to not know the answer to a question, but **answer it with how you would tackle the problem**.*

NUS Investment Society's Combined Meetings aim to empower members with valuable opportunities to learn from the various speakers that include alumnus, current members of NUS Invest, and distinguished speakers from external institutions. Despite the ongoing pandemic which has resulted in these meetings having to be done virtually, this has not dampened the members' spirit to learn and network.

In one of the meetings, we had the privilege of having Nicklaus Ong, a current associate at GIC to share about his journey. On his career talk sharing, the advice given from his personal experience was extremely relevant and useful to all members. One of the key takeaways for the members was that as undergraduates, we should always possess the drive to succeed and always be on the lookout for opportunities from as early as year 1. This was based on his personal experience of having difficulty looking for internships during his first year. Undeterred, he applied for countless positions with the main aim of trying to gain some form of experience no matter how small the role might be, over the summer break. Another key factor that Nicklaus pointed out was that we should always keep ourselves up to date with the markets. This would allow us to have better situational awareness which would come in handy for interviews.

To conclude, the combined meetings held throughout the academic year have undoubtedly allowed members to gain invaluable tips and insights that would definitely better prepare our members for a career in the industry and to achieve success.

NUS-SGX STOCK PITCH COMPETITION 2021

NUS-SGX STOCK PITCH COMPETITION 2021

Written by Daniel Yap, Marcomms Executive

Top tier equity research, exclusive training workshops, and pitching to industry professionals. These were what the participants of the inaugural NUS-SGX Stock Pitch Competition (SPC) had the opportunity to experience this year. The competition, currently in its 7th year, aims to bridge the gap between the corporate and academic worlds of equity research and investment management, while giving young student investment enthusiasts the opportunity to showcase their stock analysis and pitching skills to experienced finance professionals.

Despite certain limitations brought about by the pandemic, the hybrid-styled event witnessed an impressive sign up of more than 100 teams with participants from pre-tertiary and tertiary institutions all across Singapore.

This year, the competition was judged by esteemed industry experts such as Mr. Chan Kum Kong, Senior Vice President and Head of Research and Products at Singapore Exchange (SGX); Mr. Ian Douglas, Head of Research, ASEAN at UBS; Mr. David Mok, Trainer at SGX Academy and Head of Fund Management at IPP Financial Advisors; and Professor Lee Hon Sing, Deputy Head of Department of NUS Business School.

To equip the participants with the appropriate knowledge before the competition kicked off, a training workshop was held by Mr. David Mok and Mr. Ian Douglas, sharing their invaluable knowledge on the basics of a stock pitch, conducting secondary research, valuation methods and investment thesis.

Subsequently, teams were given a window of 4 days to prepare a report on their buy/sell/hold recommendations for their selected stocks. The teams were later narrowed down to just 8 finalist teams, who had to present and defend their investment recommendations in front of the industry professionals.

The organising team adapted well to the social distancing measures, and a live stream of the final round was made accessible on YouTube for those looking to catch the action in real time. After an intense and grueling round of judging, DnG Capital from the National University of Singapore emerged as champions.

This competition was definitely enriching to all participants that joined, offering a unique glimpse into the world of equity research. The event was a success despite the measures brought about by the pandemic, and NUS Investment Society would like to thank our partners, SGX and UBS, distinguished judges and speakers, and everyone that made the event a success.

NUS INVEST COHESION EVENTS

Written by Shawn Neo, Marcomms Executive

NUS Invest conducted small-scale cohesion events where members got to interact and bond with those from other departments in the second semester of AY 20/21 while adhering to the COVID-19 restrictions.

C R E D I T S

NUS Investment Society Yearbook 2021

Proudly brought to you by:

LIANG ZHEN YONG
DIRECTOR, 18TH EXCO, MARKETING & COMMUNICATIONS

ALINA SU
DEPUTY DIRECTOR, 18TH EXCO, MARKETING & COMMUNICATIONS

Special Thanks To Our Contributors:

Sean Jou Choo Siong (President)
Wong Jin Fu Shaun (Vice-President of Operations)
Marcus Tan Xue Kang (Vice-President of Research)
Ng Chen Hui, Adriel (Director, Equity Research)
Russell Lui (Deputy Director, Equity Research)
Tan Jian Zhang (Deputy Director, Equity Research)
Tan Wei-Shan Russell (Director, Fixed Income)
Koh Jie Le Charmian (Deputy Director, Fixed Income)
Christabelle Farand Effendy (Deputy Director, Fixed Income)
Lee Zhan Feng Kevin (Director, Global Macro)
Robinson Liokubuwono (Deputy Director, Global Macro)
Raymond Chang (Deputy Director, Global Macro)
Cao Yuchen (Director, Quantitative Finance)
Sean Gee Zhing (Deputy Director, Quantitative Finance)
Zhou Zijian (Deputy Director, Quantitative Finance)
Tan Yi Lin (Marketing and Communications Executive)
Shawn Neo (Marketing and Communications Executive)
Tan Yan Ying (Marketing and Communications Executive)
Tan Jin Wei Darien (Marketing and Communications Executive)
Daniel Yap (Marketing and Communications Executive)
Ivan Tan (Marketing and Communications Executive)
Lee Yu Qing (Marketing and Communications Executive)

NUS INVESTMENT SOCIETY

NUS INVESTMENT SOCIETY

For more information,
visit www.nusinvest.com

Our Social Media Platforms:

instagram.com/nusinvest

facebook.com/NUSInvest

linkedin.com/company/nus-investment-society

contact@nusinvest.com