Citi Global Wealth Investments

CIO Strategy Bulletin

June 15, 2024

Steven Wieting
Chief Investment Strategist and Chief Economist

Harlin Singh Urofsky
Head of Sustainable Investing

Malcolm Spittler
Senior US Economist

Catherine Turullols
Sustainable Investing Specialist

Joseph Kaplan
Senior Fixed Income Investment Strategist

Chadd Cornilles
Global Investment Strategist

The Fed That Never Stands Still

Key Takeaways

- Last week, global markets anxiously anticipated key updates on US monetary policy and continued to react negatively to surprising political developments, particularly in France (please see Europe: Electoral Implications). Fed Chairman Powell defended both the Fed's steady monetary policy this month and the central bank's outlook for rate cuts over the next 2-3 years.
- The Fed deliberately sets monetary policy at "accommodative" or "restrictive" levels to manage US employment and inflation. Both represent deviations from long-term sustainable interest rates. US monetary policy is far more "activist" than in other regions. This partly reflects the greater variability in US employment. Having taken responsibility for the Great Depression, the Fed is careful to avoid deflationary monetary policy, even as inflation targets were badly missed in recent years.

AI's Expanding Role in Energy Transition

Key Takeaways

- Much has been written about the power-hungry nature of AI to disrupt progress on corporate and national goals of energy transition. But the technology itself also offers potential opportunities to save perhaps even more energy and shift energy demand to locations where supply is abundant, evening out demand in grids around the world.
- AI also has the potential to address a growing number of challenges including energy, food, water, and waste management. Here the magnitude of the problem gives a sense of the scope of opportunity.

Potential Portfolio Implications

- Some of the Fed's new economic projections were out of date on their first day of release. The bond market is still pricing in some probability of a Fed rate cut by September (65%) and one further step before year end. We think the probability of Fed easing is even higher.
- US stock/bond correlations have come down since the "Fed shock" of 2022. We continue to argue for intermediate-duration bond positions to lock in solid yields for longer than the Fed will remain tight. Global political developments also argue for allocations.
- For mega-tech players in the AI space, broader markets have already given abundant exposure for most portfolios, so we do not see the need to double down with a concentrated position. But the abundance of applications makes us more comfortable with the large positions that the wild market run-up has built in our portfolios. However, the potential opportunity to seek out specific companies applying AI-powered innovation to address challenges is compelling.

**INVESTMENT PRODUCTS: NOT FDIC INSURED · NOT CDIC INSURED ·
NOT GOVERNMENT INSURED · NO BANK GUARANTEE · MAY LOSE VALUE**

The Fed That Never Stands Still

On Wednesday, Fed Chairman Powell had the unenviable task of defending the Fed's current monetary policy stance, its plans to reduce interest rates during the next two-to-three years, and the seeming discontinuity of it all within the Fed's updated economic forecasts.

Just as the US reported a flat month for consumer prices and a downside surprise in the core CPI, the Fed released its Summary of Economic Projections (SEP) with upgrades to the inflation forecast for 2024.

In April, the Fed's preferred measure of core inflation was down to a 2.75% year/year pace. CPI data reported on the morning of the Fed's press conference suggest a decline to 2.6% will be reported for the May reading when it's released on June 28. However, the Fed's projection for year-end 2024 was raised to 2.8%. This led reporters[1] to question whether the Fed sees an "acceleration in inflation coming."

Tempest in a tea pot

Under questioning, Fed Chair Powell noted that Federal Open Market Committee (FOMC) participants were given the chance to alter their forecasts on Wednesday morning after seeing the new CPI data. Pushed further, his response was "most people don't." In essence, observers are splitting hairs over minor deviations in data subject to significant "randomness," sample-based errors, and yes, the limitations of human forecasters. Is 2.6% measured inflation really different from 2.8%? If you understand the survey samples and data construction process, we think you'll agree with us: it's virtually nothing.

More materially, as detailed in last week's CIO Bulletin and Data Watch, readings on the economy are now unusually conflicting. The gap between employment growth reported over the past 12 months in the survey of employers and the survey of households is at a record. Despite month/month volatility, we think evidence suggests a slowing in US employment growth is underway. In contrast, US monetary policy has done nothing but tighten in the past two years (see **FIGURE 1**). Asked why the Fed would consider easing monetary policy, Powell explained that the current level of US interest rates is restrictive, meaning that "the economy would weaken without cuts."

Many observers have difficulty understanding why the Fed doesn't just set US interest rates at levels it believes can be sustained for the longer run. Instead, the Fed deliberately sets monetary policy at "accommodative" or "restrictive" levels to sway inflation and employment. These settings are, by definition, not meant to be stable.

When Powell was questioned about the Fed's projections for a single rate cut within 2024, he noted the addition of more cuts to the Fed's projections in 2025. This simply signaled delay, not a real difference in the Fed's outlook for rate cuts. The Fed still expected it will take its key policy rate down to 3.1% by the end of 2026 (see **FIGURE 2**).

[1] FOMC Press Conference on June 12, 2024.

FIGURE 1: US nonfarm employment monthly change and Fed Funds rate

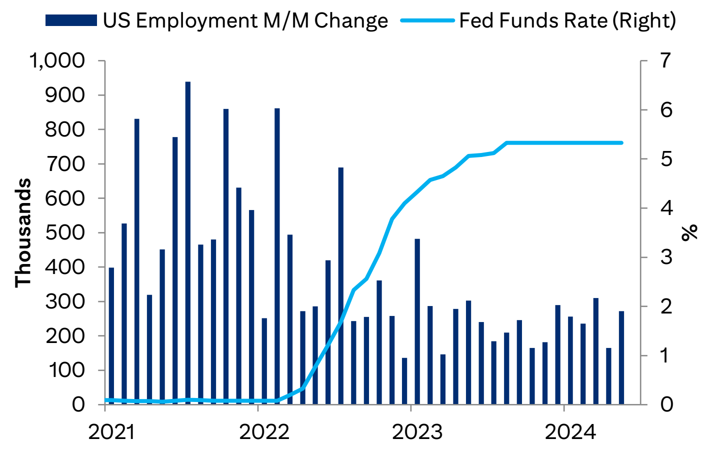
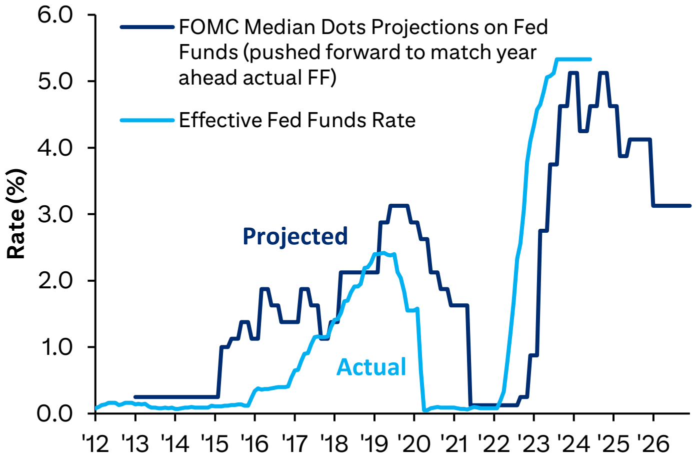


FIGURE 2: Fed's forecast for Fed Funds rate 12 months ahead vs actual



Source: Haver Analytics as of June 12, 2024. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events

Our take on jobs and inflation

After experiencing two years of global inflation averaging near 7% following the pandemic, inflation has essentially normalized. This is not going to please a public that wishes consumer prices to roll back to pre-pandemic levels (see **FIGURE 3**). However, never in post-WWII history have major central banks attempted to purposely deflate the economy to recover lost purchasing power.

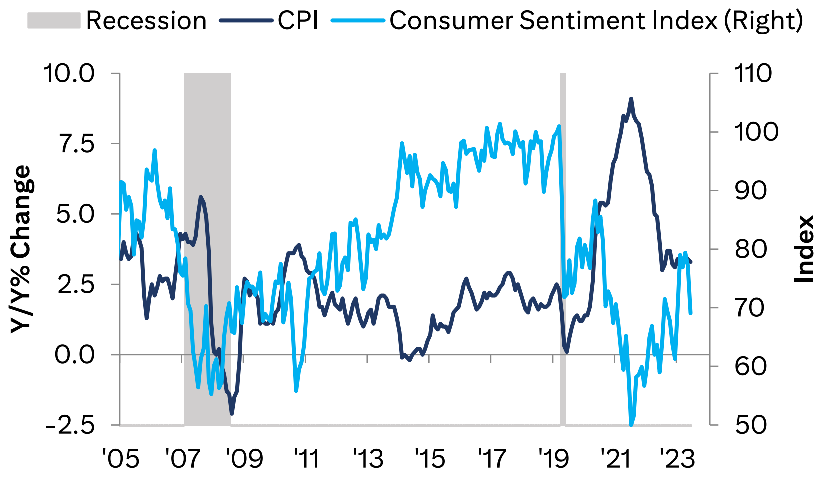
Japan ran a mildly deflationary monetary policy unintentionally for about 15 years, ending a decade ago with poor results. Among them, Japan's many attempts to stimulate growth resulted in a gross government debt to GDP ratio of 252%, more than double that of the US today.

Central banks can target 2% inflation, but when they "miss," there isn't a working strategy to make up for it with a below-2% target. The Fed, for one, won't sustain a deflationary monetary policy after taking responsibility for the Great Depression of the 1930s. While data for the month of May showed a strong gain for employment at US establishments, one risk Powell noted was that "The labor market has the tendency sometimes to weaken quickly. So, waiting for that to happen is not what we're doing."[2]

In conclusion, we believe that once the Fed decides inflation risks are clear, it will begin a process of cutting rates, perhaps routinely by 25 basis points. This is in line with its history of sustaining increases and cuts over a span of many meetings. Barring an economic catastrophe, the Fed will not bring rates back to zero. But there is good space to cut from 5.25%-5.5% – the current policy range – and what the Fed views as "longer-term normal." With an update, the Fed's new projection of this is 2.8%. We sense this estimate is still a bit too low. But unlike the 0.2% differences in inflation readings we mentioned, the gap between 3% and 5.5% for the Fed's policy rate is far from trivial.

[2] FOMC Press Conference on June 12, 2024.

FIGURE 3: US confidence still weak: consumer sentiment index vs US CPI Y/Y%



Source: Haver Analytics as of June 13, 2024. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees, or sales charges, which would lower performance. **Past performance is no guarantee of future results. Real results may vary.**

AI's Expanding Role in Energy Transition

In Wealth Outlook 2024 Mid-Year Edition, we delve into Artificial Intelligence's (AI's) rampant energy consumption along with its potential to drive the transition toward clean energy. We also offer guidance on risks and opportunities for investors positioning their portfolios for the energy transition – see Cleaner and smarter: How AI can help fuel the energy transition. Here we explore the potential for AI to address a growing number of societal and environmental challenges.

The potential applications of AI are vast and include faster drug discovery, precise medical diagnoses, personalized learning, disaster prediction and response, streamlined supply chains, increased agricultural yields, and improved customer service. AI's ability to optimize processes, accurately predict demand, and make data-driven decisions can also enhance society's efficiency in managing energy, food, water, and waste. Applying AI-powered innovation to address societal challenges has the potential to maximize economic value while minimizing ecological footprint.

Currently the AI revolution has the character of a gold rush and we see one way to invest in the space remains in mega-tech leaders, AI infrastructure, and to a lesser extent AI end users. In addition, we believe a compelling subset of potential opportunities in our ongoing AI-propelled digitization unstoppable trend include companies that are creating and/or employing solutions to sustainability challenges.

The bigger the problem, the bigger the potential opportunity

There is a class of problems that have been too costly or labor intensive for companies to address. These challenges tend to be less glamourous and are frequently neglected because the cost of solving them exceeds the value generated. For example, identifying individual strawberry plants with pests for hyper-localized and low waste insecticide application, or distinguishing which items in a generic stream of rubbish have enough copper that they're worth salvaging at today's market price. Addressing these problems often requires analyzing large, diverse, and unstructured visual datasets while making frequent, incremental decisions.

Twenty years ago, addressing these issues often required a person armed with a clipboard – an approach that was both labor-intensive and cost-prohibitive. Five years ago, addressing these challenges most likely required bespoke code –

tailored visual sorting software crafted for each unique application. This approach demanded continuous adjustments and meticulous attention, and it remained economically viable only within certain lucrative niches.

The era when specialized solutions were painstakingly developed for specific contexts, often at a considerable cost, is behind us. Today, AI can create solutions for generic problems and adapt to shifting inputs at an unprecedented rate. As a result, these challenges are increasingly resembling avenues to boost profitability while maintaining competitive pricing.

Energy: Distribution optimization

When considering the rapid expansion of intermittent energy sources, it is natural to question how the power grid can effectively harness the feast-or-famine nature of low-cost renewables without unnecessary waste. The challenge lies in integrating variable energy sources while maintaining grid stability. And while this has clearly become an enormous headache for utility providers, it has gradually evolved into a key element of business plans for high-tech companies.

Developing efficient energy storage technology is crucial. The world has long found ways to embody abundant energy into transportable objects, as can be seen by the historical geolocation of energy-hungry aluminum refineries in areas with enormous geothermal capacity. Cryptocurrency mining built itself around using only the cheapest of electricity, but the rapidly increasing size of the AI computing energy demand will create a way to effectively transport embodied energy across the globe at trivial costs. Implementing smart grid management that adapts to real-time conditions using reinforcement learning enables efficient energy distribution optimization[3]. Bottom line, AI can transform the electric grid into a more reliable and efficient system.

The International Energy Agency (IEA) included separate line items for data centers, cryptocurrency, and AI for the first time in its January 2024 report[4]. The IEA estimated that the three added together already accounted for 2% of global energy demand in 2022 and are set to double by 2026. While data centers typically need to be relatively close to population hubs, cryptocurrency and AI use vast amounts of power to create an easily transmittable digital product. Increasingly, AI is being used to calculate where it will be cheapest to run AI software. The IEA's 2026 estimate for energy use of data centers, cryptocurrency and AI at 1000 terawatt hours is roughly equivalent to a virtual country the size of Japan that can be shifted to where energy is abundant and cheap at any time of the day or night.

With the IEA forecasting renewable energy production overtaking coal as the largest source of electricity in early 2025, the ability to location shift power will be a key element in coping with an increasingly intermittent electricity production. Google parent company Alphabet has already announced plans to leverage its AI infrastructure for location-based energy optimization[5]. What's more, as high-tech companies compete to be leaders in AI, the power demands of AI are putting their net zero pledges in jeopardy, challenging them to find new ways to mitigate carbon-intensive operations[6].

Given that power remains the most significant ongoing expense in the AI revolution, we can expect widespread availability of hardware capable of efficiently redistributing substantial amounts of electricity. While this will not entirely remove the need for batteries to shift electricity across time, it will effectively link disparate grids around the world. As electricity and computation become more interchangeable commodities, their seamless integration allows for greater flexibility and efficiency. As a corollary, AI systems are poised to potentially benefit from electricity rates significantly below the global average. This cost advantage will be pivotal for the success of industries that heavily rely on AI and beyond.

[3] Bousnina and Guerassimoff (2022). Deep Reinforcement Learning for Optimal Energy Management of Multi-energy Smart Grids. Retrieved from https://link.springer.com/chapter/10.1007/978-3-030-95470-3_2

[4] IEA (2024), Electricity 2024, IEA, Paris https://www.iea.org/reports/electricity-2024, Licence: CC BY 4.0

[5] https://www.bloomberg.com/news/articles/2024-02-25/ai-increases-data-center-energy-use-google-pioneered-technique-could-help

[6] Microsoft's AI Investment Imperils Climate Goal As Emissions Jump 30% - Bloomberg

Theme	Use Case
Geographic Flexibility	AI computations can be done in locations with abundant low-cost renewable energy, moving energy demand to where supply is most abundant.
Temporal Shifting	For non-real time urgent tasks, AI can time shift to periods of lowest price and environmental impact, smoothing energy demand.
Energy Storage Management	Time when to increase storage to avoid waste and diminish costs.
Transmission as Data	As the share of global electricity dedicated to computing grows, electricity grids will effectively be connected to each other, as compute tasks and their results will allow shifting energy demand to the locations with the most abundant clean energy.

Optimizing Food, Water and Waste

Food waste: An enormous problem (and opportunity)

Food waste poses global challenges with economic, environmental, and social implications. According to the United Nations, roughly one-third of all food produced is wasted, adding up to $750 billion in economic losses annually[7]. To help put this into context, it is estimated that an area equivalent to the combined size of the United States, India, and Egypt is dedicated to growing food that is never consumed[8]. All the while, amidst a series of geopolitical shocks, including the COVID-19 pandemic and Russia's invasion of Ukraine, global food insecurity has garnered increased attention.

Given agriculture's threefold role as a significant emitter of carbon, a major consumer of freshwater, and a sector profoundly impacted by climate change, it becomes a focal point in discussions about energy transition and the development of sustainable food systems – see Sustainable Investing Spotlight: Planting for tomorrow.

Leveraging AI, we can shift toward a model that minimizes food waste and pollution while simultaneously regenerating natural ecosystems, safeguarding and optimizing our food system. AI's applications span pricing, inventory management, and supply chain optimization to design out avoidable food, water, and energy waste. By using machine learning models, it can analyze real-time traffic data, store locations, and demand patterns to optimize food distribution while managing inventory, mitigating food spoilage and overbuying. It can also help source and track regeneratively grown produce or create alternatives such as plant-based meat, fish, and dairy products[9].

[7] https://news.un.org/en/story/2013/09/448652
[8] https://www.sciencedirect.com/science/article/abs/pii/S2589014X2300186X
[9] https://www.mckinsey.com/capabilities/sustainability/our-insights/sustainability-blog/how-ai-can-unlock-a-127b-opportunity-by-reducing-food-waste

Theme	Use Case
Supply Chain Optimization	Demand forecasting and efficient supply chain management to reduce surplus and spoilage.
Smart Agriculture	Precision farming, plant-level monitoring for nutrients, autonomous tractors, pests and water. To minimize resource inputs and avoid toxic runoff.
Food Inventory Monitoring	Identify aging stock, dynamically adjust pricing to avoid waste. Reduce spoilage in transport.
Consumer Behavior Analysis	Predict household needs, identify foods that are aging in the fridge and suggest recipes that use what is on hand already.

Water waste: Every drop counts

The idea that the world needs to protect its valuable freshwater resources is not new as only about three percent of Earth's water is fresh water. Of that, only 1.2 percent can be used as drinking water[10]. Like energy utilities, AI has emerged as a critical tool for an industry focused on operational excellence.

Among other things, AI’s ability to detect leaks, optimize water usage, and enhance treatment processes minimizes water waste and promotes sustainable water management practices. In addition, AI can offer valuable insights for regions facing floods or droughts that impact critical areas such as infrastructure, agriculture, waterborne illnesses, and livelihoods. AI can process vast amounts of data to optimize water supply systems with the aim to reduce costs. By harnessing AI’s potential, the water industry can serve as a trailblazer for other sectors to emulate.

Theme	Use Case
Leak Detection	Monitor infrastructure for leaks, reducing water loss.
Irrigation Management	Optimize irrigation schedules based on real-time data, minimizing waste.
Demand Forecasting	Monitor and predict water usage patterns, helping utilities to manage supply.
Streamflow Forecasting	Hydrological AI modeling forecasts the accurate streamflow available for efficient water resource management.
Wastewater Treatment	Boost wastewater treatment efficiency, avoid over treatment to reduce energy consumption.

Recycling: Unearthing value

Recycling has gotten a black eye in recent years due to its overpromise and underperformance, especially in the domain of plastic recycling and lack of economic performance. The ability to shift sorting out of the hands of expensive humans to AI may help reverse these trends and improve the quality and quantity of material deflected out of trash streams.

[10] https://education.nationalgeographic.org/resource/earths-fresh-water/

Theme	Use Case
Automated Sorting	Replace humans in sorting recycling, decrease labor costs and increase recycling rates.
Material Recovery	Identify and recover valuable materials from waste streams.
Consumer Engagement	Help consumers correctly sort waste to minimize frustration and labor.

All this is not withstanding the risks and potential ethical dilemmas associated with AI. The promising applications are vast and AI's capacity to address a growing number of societal and environmental challenges can outweigh the energy and water consumption associated with its operation. We consider firms creating and/or employing solutions to challenges associated with energy, food, water, and waste, to be a compelling subset of opportunities within our ongoing AI-propelled digitization unstoppable trend.

CIO Strategy
Webcast series

Thursdays at 11:30am EST
LIVE Q&A TO FOLLOW

In-depth weekly conversation on timely market events

Register now

STEVEN
WIETING

Chief Investment Strategist and
Chief Economist Citi Wealth

IMPORTANT INFORMATION

In any instance where distribution of this communication (“Communication”) is subject to the rules of the US Commodity Futures Trading Commission (“CFTC”), this communication constitutes an invitation to consider entering into a derivatives transaction under US CFTC Regulations §§ 1.71 and 23.605, where applicable, but is not a binding offer to buy/sell any financial instrument.

This Communication is prepared by Citi Global Wealth Investments (“CGWI”) which is comprised of the investments and capital markets capabilities that are provided to Citi Private Bank, Citi Global Wealth at Work, Citi Personal Wealth Management and Citi Personal Investments International (CPII).

Citi Private Bank, Citi Global Wealth at Work, Citi Personal Wealth Management, and Citi Personal Investments International, are businesses of Citigroup Inc. (“Citigroup”), which provide clients access to a broad array of products and services available through bank and non-bank affiliates of Citigroup. Not all products and services are provided by all affiliates or are available at all locations. In the U.S., investment products and services are provided by Citigroup Global Markets Inc. (“CGMI”), member FINRA and SIPC, Citi Private Alternatives, LLC (“CPA”), member FINRA and SIPC, and Citi Global Alternatives, LLC (“CGA”). CPA acts as distributor of certain alternative investment products to certain eligible clients’ segments. CGMI accounts are carried by Pershing LLC, member FINRA, NYSE, SIPC. Investment management services (including portfolio management) are available through CGMI, CGA, Citibank, N.A. and other affiliated advisory businesses. Insurance is offered by Citi Personal Wealth Management through Citigroup Life Agency LLC (“CLA”). In California, CLA does business as Citigroup Life Insurance Agency, LLC (license number 0G56746). CGMI, CPA, CGA, CLA and Citibank, N.A. are affiliated companies under the common control of Citigroup.

Outside the U.S., investment products and services are provided by other Citigroup affiliates. Investment Management services (including portfolio management) are available through CGMI, CGA, Citibank, N.A. and other affiliated advisory businesses. These Citigroup affiliates, including CGA, will be compensated for the respective investment management, advisory, administrative, distribution and placement services they may provide.

CGWI personnel and GPS authors are not research analysts, and the information in this Communication is not intended to constitute “research,” as that term is defined by applicable regulations. Unless otherwise indicated, any reference to a research report or research recommendation is not intended to represent the whole report and is not in itself considered a recommendation or research report.

This Communication is provided for information and discussion purposes only, at the recipient’s request. The recipient should notify CGWI immediately should it at any time wish to cease being provided with such information. Unless otherwise indicated, (i) it does not constitute an offer or recommendation to purchase or sell any security, financial instrument or other product or service, or to attract any funding or deposits, and (ii) it does not constitute a solicitation if it is not subject to the rules of the CFTC (but see discussion above regarding communication subject to CFTC rules) and (iii) it is not intended as an official confirmation of any transaction.

Unless otherwise expressly indicated, this Communication does not take into account the investment objectives, risk profile or financial situation of any particular person and as such, investments mentioned in this document may not be suitable for all investors. Citi is not acting as an investment or other advisor, fiduciary or agent. The information contained herein is not intended to be an exhaustive discussion of the strategies or concepts mentioned herein or tax or legal advice. Recipients of this Communication should obtain advice based on their own individual circumstances from their own tax, financial, legal, and other advisors about the risks and merits of any transaction before making an investment decision, and only make such decisions on the basis of their own objectives, experience, risk profile and resources.

The information contained in this Communication is based on generally available information and, although obtained from sources believed by Citi to be reliable, its accuracy and completeness cannot be assured, and such information may be incomplete or condensed. Any assumptions or information contained in this Communication constitute a judgment only as of the date of this document or on any specified dates and is subject to change without notice. Insofar as this Communication may contain historical and forward-looking information, past performance is neither a guarantee nor an indication of future results, and future results may not meet expectations due to a variety of economic, market and other factors. Further, any projections of potential risk or return are illustrative and should not be taken as limitations of the maximum possible loss or gain. Any prices, values or estimates provided in this Communication (other than those that are identified as being historical) are indicative only, may change without notice and do not represent firm quotes as to either price or size, nor reflect the value Citi may assign a security in its inventory. Forward looking information does not indicate a level at which Citi is prepared to do a trade and may not account for all relevant assumptions and future conditions. Actual conditions may vary substantially from estimates which could have a negative impact on the value of an instrument.

Views, opinions and estimates expressed herein may differ from the opinions expressed by other Citi businesses or affiliates and are not intended to be a forecast of future events, a guarantee of future results, or investment advice, and are subject to change without notice based on market and other conditions. Citi is under no duty to update this document and accepts no liability for any loss (whether direct, indirect or consequential) that may arise from any use of the information contained in or derived from this Communication.

None of the financial instruments or other products mentioned in this Communication (unless expressly stated otherwise) is (i) insured by the Federal Deposit Insurance Corporation or any other governmental authority, or (ii) deposits or other obligations of, or guaranteed by Citi or any other insured depository institution.

Citi often acts as an issuer of financial instruments and other products, acts as a market maker and trades as principal in many different financial instruments and other products, and can be expected to perform or seek to perform investment banking and other services for the issuer of such financial instruments or other products. The author of this Communication may have discussed the information contained therein with others within or outside Citi, and the author and/or such other Citi personnel may have already acted on the basis of this information (including by trading for Citi's proprietary accounts or communicating the information contained herein to other customers of Citi). Citi, Citi's personnel (including those with whom the author may have consulted in the preparation of this communication), and other customers of Citi may be long or short the financial instruments or other products referred to in this Communication, may have acquired such positions at prices and market conditions that are no longer available, and may have interests different from or adverse to your interests.

IRS Circular 230 Disclosure: Citi and its employees are not in the business of providing, and do not provide, tax or legal advice to any taxpayer outside Citi. Any statement in this Communication regarding tax matters is not intended or written to be used, and cannot be used or relied upon, by any taxpayer for the purpose of avoiding tax penalties. Any such taxpayer should seek advice based on the taxpayer's particular circumstances from an independent tax advisor.

Neither Citi nor any of its affiliates can accept responsibility for the tax treatment of any investment product, whether or not the investment is purchased by a trust or company administered by an affiliate of Citi. Citi assumes that, before making any commitment to invest, the investor and (where applicable, its beneficial owners) have taken whatever tax, legal or other advice the investor/beneficial owners consider necessary and have arranged to account for any tax lawfully due on the income or gains arising from any investment product provided by Citi.

This Communication is for the sole and exclusive use of the intended recipients and may contain information proprietary to Citi which may not be reproduced or circulated in whole or in part without Citi's prior consent. The manner of circulation and distribution may be restricted by law or regulation in certain countries. Persons who come into possession of this document are required to inform themselves of, and to observe such restrictions. Citi accepts no liability whatsoever for the actions of third parties in this respect. Any unauthorized use, duplication, or disclosure of this document is prohibited by law and may result in prosecution.

Other businesses within Citigroup Inc. and affiliates of Citigroup Inc. may give advice, make recommendations, and take action in the interest of their clients, or for their own accounts, that may differ from the views expressed in this document. All expressions of opinion are current as of the date of this document and are subject to change without notice. Citigroup Inc. is not obligated to provide updates or changes to the information contained in this document.

The expressions of opinion are not intended to be a forecast of future events or a guarantee of future results. Past performance is not a guarantee of future results. Real results may vary.

Although information in this document has been obtained from sources believed to be reliable, Citigroup Inc. and its affiliates do not guarantee its accuracy or completeness and accept no liability for any direct or consequential losses arising from its use. Throughout this publication where charts indicate that a third party (parties) is the source, please note that the attributed may refer to the raw data received from such parties. No part of this document may be copied, photocopied or duplicated in any form or by any means, or distributed to any person that is not an employee, officer, director, or authorized agent of the recipient without Citigroup Inc.'s prior written consent.

Citigroup Inc. may act as principal for its own account or as agent for another person in connection with transactions placed by Citigroup Inc. for its clients involving securities that are the subject of this document or future editions of the document.

RISKS

Investments in financial instruments or other products carry significant risk, including the possible loss of the principal amount invested. Financial instruments or other products denominated in a foreign currency are subject to exchange rate fluctuations, which may have an adverse effect on the price or value of an investment in such products. This Communication does not purport to identify all risks or material considerations which may be associated with entering into any transaction.

Structured products can be highly illiquid and are not suitable for all investors. Additional information can be found in the disclosure documents of the issuer for each respective structured product described herein. Investing in structured products is intended only for experienced and sophisticated investors who are willing and able to bear the high economic risks of such an investment. Investors should carefully review and consider potential risks before investing.

OTC derivative transactions involve risk and are not suitable for all investors. Investment products are not insured, carry no bank or government guarantee, and may lose value. Before entering into these transactions, you should: (i) ensure that you have obtained and considered relevant information from independent reliable sources concerning the financial, economic and political conditions of the relevant markets; (ii) determine that you have the necessary knowledge, sophistication and experience in financial, business and investment matters to be able to evaluate the risks involved, and that you are financially able to bear such risks; and (iii) determine, having considered the foregoing points, that capital markets transactions are suitable and appropriate for your financial, tax, business and investment objectives.

This material may mention options regulated by the US Securities and Exchange Commission. Before buying or selling options you should obtain and review the current version of the Options Clearing Corporation booklet, Characteristics and Risks of Standardized Options. A copy of the booklet can be obtained upon request from Citigroup Global Markets Inc., 390 Greenwich Street, 3rd Floor, New York, NY 10013.

If you buy options, the maximum loss is the premium. If you sell put options, the risk is the entire notional below the strike. If you sell call options, the risk is unlimited. The actual profit or loss from any trade will depend on the price at which the trades are executed. The prices used herein are historical and may not be available when you order is entered. Commissions and other transaction costs are not considered in these examples. Option trades in general and these trades in particular may not be appropriate for every investor. Unless noted otherwise, the source of all graphs and tables in this report is Citi. Because of the importance of tax considerations to all option transactions, the investor considering options should consult with his/her tax advisor as to how their tax situation is affected by the outcome of contemplated options transactions.

Bonds are affected by a number of risks, including fluctuations in interest rates, credit risk and prepayment risk. In general, as prevailing interest rates rise, fixed income securities prices will fall. Bonds face credit risk if a decline in an issuer's credit rating, or creditworthiness, causes a bond's price to decline. High yield bonds are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. Finally, bonds can be subject to prepayment risk. When interest rates fall, an issuer may choose to borrow money at a lower interest rate, while paying off its previously issued bonds. As a consequence, underlying bonds will lose the interest payments from the investment and will be forced to reinvest in a market where prevailing interest rates are lower than when the initial investment was made.

Bond rating equivalence

Alpha and/or numeric symbols used to give indications of relative credit quality. In the municipal market, these designations are published by the rating services. Internal rating are also used by other market participants to indicate credit quality.

Bond credit quality ratings		Rating agencies	
Credit risk	**Moody's[1]**	**Standard and Poor's[2]**	**Fitch Rating[2]**
Investment Grade			
Highest quality	Aaa	AAA	AAA
High quality (very strong)	Aa	AA	AA
Upper medium grade (Strong)	A	A	A
Medium grade	Baa	BBB	BBB
Not Investment Grade			
Lower medium grade (somewhat speculative)	Ba	BB	BB
Low grade (speculative)	B	B	B
Poor quality (may default)	Caa	CCC	CCC
Most speculative	Ca	CC	CC
No interest being paid or bankruptcy petition filed	C	D	C
In default	C	D	D

1 The ratings from Aa to Ca by Moody's may be modified by the addition of a 1, 2, or 3, to show relative standing within the category.

2 The rating from AA to CC by Standard and Poor's and Fitch Ratings may be modified by the addition of a plus or a minus to show relative standings within the category.

(MLP's) - Energy Related MLPs May Exhibit High Volatility. While not historically very volatile, in certain market environments Energy Related MLPS may exhibit high volatility.

Changes in Regulatory or Tax Treatment of Energy Related MLPs. If the IRS changes the current tax treatment of the master limited partnerships included in the Basket of Energy Related MLPs thereby subjecting them to higher rates of taxation, or if other regulatory authorities enact regulations which negatively affect the ability of the master limited partnerships to generate income or distribute dividends to holders of common units, the return on the Notes, if any, could be dramatically reduced. Investment in a basket of Energy Related MLPs may expose the investor to concentration risk due to industry, geographical, political, and regulatory concentration.

Mortgage-backed securities ("MBS"), which include collateralized mortgage obligations ("CMOs"), also referred to as real estate mortgage investment conduits ("REMICs"), may not be suitable for all investors. There is the possibility of early return of principal due to mortgage prepayments, which can reduce expected yield and result in reinvestment risk. Conversely, return of principal may be slower than initial prepayment speed assumptions, extending the average life of the security up to its listed maturity date (also referred to as extension risk).

Additionally, the underlying collateral supporting non-Agency MBS may default on principal and interest payments. In certain cases, this could cause the income stream of the security to decline and result in loss of principal. Further, an insufficient level of credit support may result in a downgrade of a mortgage bond's credit rating and lead to a higher probability of principal loss and increased price volatility. Investments in subordinated MBS involve greater credit risk of default than the senior classes of the same issue. Default risk may be pronounced in cases where the MBS security is secured by, or evidencing an interest in, a relatively small or less diverse pool of underlying mortgage loans.

MBS are also sensitive to interest rate changes which can negatively impact the market value of the security. During times of heightened volatility, MBS can experience greater levels of illiquidity and larger price movements. Price volatility may also occur from other factors including, but not limited to, prepayments, future prepayment expectations, credit concerns, underlying collateral performance and technical changes in the market.

An investment in alternative investments can be highly illiquid, is speculative and not suitable for all investors. Investing in alternative investments is for experienced and sophisticated investors who are willing to bear the high economic risks associated with such an investment. Investors should carefully review and consider potential risks before investing. Certain of these risks may include:

- loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices;

- lack of liquidity in that there may be no secondary market for the fund and none is expected to develop;
- volatility of returns;
- restrictions on transferring interests in the Fund;
- potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized;
- absence of information regarding valuations and pricing;
- complex tax structures and delays in tax reporting;
- less regulation and higher fees than mutual funds; and
- manager risk.

Individual funds will have specific risks related to their investment programs that will vary from fund to fund.

Asset allocation does not assure a profit or protect against a loss in declining financial markets.

Diversification does not guarantee a profit or protect against loss. Different asset classes present different risks.

The indexes are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance.

Past performance is no guarantee of future results.

International investing entails greater risk, as well as greater potential rewards compared to US investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economics.

Investing in smaller companies involves greater risks not associated with investing in more established companies, such as business risk, significant stock price fluctuations and illiquidity.

Factors affecting commodities generally, index components composed of futures contracts on nickel or copper, which are industrial metals, may be subject to a number of additional factors specific to industrial metals that might cause price volatility. These include changes in the level of industrial activity using industrial metals (including the availability of substitutes such as manmade or synthetic substitutes); disruptions in the supply chain, from mining to storage to smelting or refining; adjustments to inventory; variations in production costs, including storage, labor and energy costs; costs associated with regulatory compliance, including environmental regulations; and changes in industrial, government and consumer demand, both in individual consuming nations and internationally. Index components concentrated in futures contracts on agricultural products, including grains, may be subject to a number of additional factors specific to agricultural products that might cause price volatility. These include weather conditions, including floods, drought and freezing conditions; changes in government policies; planting decisions; and changes in demand for agricultural products, both with end users and as inputs into various industries.

The information contained herein is not intended to be an exhaustive discussion of the risks, strategies or concepts mentioned herein or tax or legal advice. Readers interested in the strategies or concepts should consult their tax, legal, or other advisors, as appropriate.

Environmental, Social and Governance (ESG) and sustainable investing may limit the type and number of investment opportunities, and, as a result may affect performance relative to other approaches that do not impose similar sustainability criteria. Sustainable investment products are subject to availability. Certain sustainable investment opportunities may not be available in all regions or not available at all. No guarantee is provided regarding the financial or sustainability performance of such products and the products may not meet their investment or sustainability objectives.

There is currently no globally accepted framework or definition (legal, regulatory or otherwise) nor market consensus as to what constitutes, an "ESG", "sustainable", "impact" or an equivalently labelled product, or regarding what precise attributes are required for a particular investment, product or asset to be defined as such. Different persons may arrive at varied conclusions when evaluating the sustainability attributes of a product or any of its underlying investments. Certain jurisdictional laws and regulations require classifications of investment products against their own sustainability definitions and as such there is likely to be a degree of divergence as to the meaning of such terms. For example, the term "sustainable investing" where used in this disclosure is by reference to CGWI's internal framework rather than any defined meaning under jurisdictional laws and regulations. There is no guarantee that investing in these products will have a sustainability impact.

There are numerous ESG data providers that evaluate companies on their ESG performance and provide reports, ratings, and benchmarks. Report, rating and benchmark methodology, scope, and coverage, vary greatly among providers. ESG data may not be available for all companies, securities, or geographies and as such, may not necessarily be reliable or complete. Such data will also be subject to various limitations, including (inter alia): i) limitations in the third-party data provider's methodologies; ii) data lags, data coverage gaps or other issues impacting the quality of the data; iii) the fact that there are divergent views, approaches, methodologies and disclosure standards in the market, including among data providers, with respect to the identification, assessment, disclosure or determination of "ESG" factors or indicators and which precise attributes are required for a particular investment, product or asset to be defined as such; iv) the fact that ESG information, including where obtained from third-party data providers, may be based on qualitative or subjective assessment, and any one data source may not in itself represent a complete 'picture' for the ESG metric that it represents; v) the fact that such data may be subject to change without any notice of this to CGWI by the third-party data provider or other source. Furthermore, some of the data CGWI obtain from third-party providers is not obtained directly from investee companies, but rather represents estimated / proxy data that the third-party data provider has prepared using its own proprietary methodologies (e.g. because there is no actual investee company data). Such proprietary methodologies are also subject to various limitations of their own, acknowledging that estimates / proxies are in and of themselves an inexact science. CGWI does not make any representation or warranty as to the completeness or accuracy of any such third-party data (whether actual or estimated), or of data that is generated using this third-party data. CGWI shall have no liability for any errors or omissions in the information where such information has been obtained from third parties or not.

COUNTRY DISCLOSURES

Citibank, N.A., Hong Kong / Singapore organized under the laws of U.S.A. with limited liability. This communication is distributed in Hong Kong by Citi Private Bank operating through Citibank N.A., Hong Kong Branch, which is registered in Hong Kong with the Securities and Futures Commission for Type 1 (dealing in securities), Type 4 (advising on securities), Type 6 (advising on corporate finance) and Type 9 (asset management) regulated activities with CE No: (AAP937) or in Singapore by Citi Private Bank operating through Citibank, N.A., Singapore Branch which is regulated by the Monetary Authority of Singapore. Any questions in connection with the contents in this communication should be directed to registered or licensed representatives of the relevant aforementioned entity. The contents of this communication have not been reviewed by any regulatory authority in Hong Kong or any regulatory authority in Singapore. This communication contains confidential and proprietary information and is intended only for recipient in accordance with accredited investors requirements in Singapore (as defined under the Securities and Futures Act (Chapter 289 of Singapore) (the "Act") and professional investors requirements in Hong Kong (as defined under the Hong Kong Securities and Futures Ordinance and its subsidiary legislation). For regulated asset management services, any mandate will be entered into only with Citibank, N.A., Hong Kong Branch and/or Citibank, N.A. Singapore Branch, as applicable. Citibank, N.A., Hong Kong Branch or Citibank, N.A., Singapore Branch may sub-delegate all or part of its mandate to another Citigroup affiliate or other branch of Citibank, N.A. Any references to named portfolio managers are for your information only, and this communication shall not be construed to be an offer to enter into any portfolio management mandate with any other Citigroup affiliate or other branch of Citibank, N.A. and, at no time will any other Citigroup affiliate or other branch of Citibank, N.A. or any other Citigroup affiliate enter into a mandate relating to the above portfolio with you. To the extent this communication is provided to clients who are booked and/or managed in Hong Kong: No other statement(s) in this communication shall operate to remove, exclude or restrict any of your rights or obligations of Citibank under applicable laws and regulations. Citibank, N.A., Hong Kong Branch does not intend to rely on any provisions herein which are inconsistent with its obligations under the Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission, or which mis-describes the actual services to be provided to you.

Citibank, N.A. is incorporated in the United States of America and its principal regulators are the US Office of the Comptroller of Currency and Federal Reserve under US laws, which differ from Australian laws. Citibank, N.A. does not hold an Australian Financial Services License under the Corporations Act 2001 as it enjoys the benefit of an exemption under ASIC Class Order CO 03/1101 (remade as ASIC Corporations (Repeal and Transitional) Instrument 2016/396 and extended by ASIC Corporations (Amendment) Instrument 2023/588).

In the United Kingdom, Citibank N.A., London Branch (registered branch number BR001018), Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB, is authorized and regulated by the Office of the Comptroller of the Currency (USA) and authorized by the Prudential Regulation Authority. Subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. The contact number for Citibank N.A., London Branch is +44 (0)20 7508 8000.

Citibank Europe plc (UK Branch) is a branch of Citibank Europe plc, which is authorised and regulated by the Central Bank of Ireland and the European Central Bank. Authorised by the Prudential Regulation Authority. Subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. Citibank Europe plc, UK Branch is registered as a branch in the register of companies for England and Wales with registered branch number BR017844. Its registered address is Citigroup Centre, Canada Square, Canary Wharf, London E14 5LB. VAT No.: GB 429 6256 29. Citibank Europe plc is registered in Ireland with number 132781, with its registered office at 1 North Wall Quay, Dublin 1. Citibank Europe plc is regulated by the Central Bank of Ireland. Ultimately owned by Citigroup Inc., New York, USA.

Citibank Europe plc, Luxembourg Branch, registered with the Luxembourg Trade and Companies Register under number B 200204, is a branch of Citibank Europe plc. It is subject to the joint supervision of the European Central bank and the Central Bank of Ireland. It is furthermore subject to limited regulation by the Commission de Surveillance du Secteur Financier (the CSSF) in its role as host Member State authority and registered with the CSSF under number B00000395. Its business office is at 31, Z.A. Bourmicht, 8070 Bertrange, Grand Duchy of Luxembourg. Citibank Europe plc is registered in Ireland with company registration number 132781. It is regulated by the Central Bank of Ireland under the reference number C26553 and supervised by the European Central Bank. Its registered office is at 1 North Wall Quay, Dublin 1, Ireland.

This document is communicated by Citibank (Switzerland) AG, which has its registered address at Hardstrasse 201, 8005 Zurich, Citibank N.A., Zurich Branch, which has its registered address at Hardstrasse 201, 8005 Zurich, or Citibank N.A., Geneva Branch, which has its registered address at 2, Quai de la Poste, 1204 Geneva. Citibank (Switzerland) AG and Citibank, N.A., Zurich and Geneva Branches are authorised and supervised by the Swiss Financial Supervisory Authority (FINMA).

In Jersey, this document is communicated by Citibank N.A., Jersey Branch which has its registered address at PO Box 104, 38 Esplanade, St Helier, Jersey JE4 8QB. Citibank N.A., Jersey Branch is regulated by the Jersey Financial Services Commission. Citibank N.A. Jersey Branch is a participant in the Jersey Bank Depositors Compensation Scheme. The Scheme offers protection for eligible deposits of up to £50,000. The maximum total amount of compensation is capped at £100,000,000 in any 5-year period. Full details of the Scheme and banking groups covered are available on the States of Jersey website www.gov.je/dcs, or on request.

Citi may offer, issue, distribute or provide other services in relation to certain unsecured financial instruments issued or entered into by BRRD Entities (i.e., EU entities within the scope of Directive 2014/59/EU (the BRRD), including EU credit institutions, certain EU investment firms and / or their EU subsidiaries or parents) (BRRD Financial Instruments).

In various jurisdictions (including, without limitation, the European Union and the United States) national authorities have certain powers to manage and resolve banks, broker dealers and other financial institutions (including, but not limited to, Citi) when they are failing or likely to fail. There is a risk that the use, or anticipated use, of such powers, or the manner in which they are exercised, may materially adversely affect (i) your rights under certain types of unsecured financial instruments (including, without limitation, BRRD Financial Instruments), (ii) the value, volatility or liquidity of certain unsecured financial instruments (including, without limitation, BRRD Financial Instruments) that you hold and / or (iii) the ability of an institution (including, without limitation, a BRRD Entity) to satisfy any liabilities or obligations it has to you. In the event of resolution, the value of BRRD Financial Instruments may be reduced to zero and or liabilities may be converted into ordinary shares or other instruments of ownership for the purposes of stabilisation and loss absorption. The terms of existing BRRD Financial Instruments (e.g., date of maturity or interest rates payable) could be altered and payments could be suspended.

There can be no assurance that the use of any BRRD resolution tools or powers by the BRRD Resolution Authority or the manner in which they are exercised will not materially adversely affect your rights as a holder of BRRD Financial Instruments, the market value of any investment you may have in BRRD Financial Instruments and/or a BRRD Entity's ability to satisfy any liabilities or obligations it has to you. You may have a right to compensation from the relevant authorities if the exercise of such resolution powers results in less favourable treatment for you than the treatment that you would have received under normal insolvency proceedings. By accepting any services from Citi, you confirm that you are aware of these risks.

Canada - Citi Private Bank is a business of Citigroup Inc. ("Citigroup"), which provides its clients access to a broad array of products and services available through bank and non-bank affiliates of Citigroup. Not all products and services are provided by all affiliates or are available at all locations.

In Canada, Citi Private Bank is a division of Citibank Canada, a Schedule II Canadian chartered bank. References herein to Citi Private Bank and its activities in Canada relate solely to Citibank Canada and do not refer to any affiliates or subsidiaries of Citibank Canada operating in Canada. Certain investment products are made available through Citibank Canada Investment Funds Limited ("CCIFL"), a wholly owned subsidiary of Citibank Canada. Investment Products are subject to investment risk, including possible loss of principal amount invested. Investment Products are not insured by the CDIC, FDIC or depository insurance regime of any jurisdiction and are not guaranteed by Citigroup or any affiliate thereof.

This document is for information purposes only and does not constitute an offer to sell or a solicitation of an offer to buy any securities to any person in any jurisdiction. The information set out herein may be subject to updating, completion, revision, verification and amendment and such information may change materially.

Citigroup, its affiliates and any of the officers, directors, employees, representatives or agents shall not be held liable for any direct, indirect, incidental, special, or consequential damages, including loss of profits, arising out of the use of information contained herein, including through errors whether caused by negligence or otherwise.

CCIFL is not currently a member and does not intend to become a member of the Canadian Investment Regulatory Organization ("CIRO"); consequently, clients of CCIFL will not have available to them investor protection benefits that would otherwise derive from membership of CCIFL in the CIRO, including coverage under any investor protection plan for clients of members of the CIRO.

Bahrain: IN BAHRAIN, CITI PRIVATE BANK OPERATES UNDER SPECIFIC APPROVAL ISSUED ON THE BASIS OF CITIBANK, N.A., BAHRAIN BRANCH'S BANKING LICENSE

Marketing and distribution of Investment Funds to clients in Bahrain requires Notification to the Central Bank of Bahrain and will be limited to UHNWI as defined below. Minimum investment subscription criteria will apply for products for all subscriptions for Bahrain domiciled clients.

Ultra-high net worth investors are:
(a) Individuals who have a minimum net worth (or joint net worth with their spouse) of USD 25 million or more
(b) Companies, partnerships, trusts or other commercial undertakings, which have financial assets available for investment of not less than USD 25 million; or
(c) Governments, supranational organisations, central banks or other national monetary authorities, and state organisations whose main activity is to invest in financial instruments (such as state pension funds).

CONSUMER BANKING MARKET SPECIFIC DISCLOSURES

Hong Kong: This communication is distributed in Hong Kong by Citibank (Hong Kong) Limited ("CHKL") and/or Citibank, N.A., Hong Kong Branch ("CBNA HK", Citibank, N.A. is organized under the laws of U.S.A. with limited liability). CHKL and CBNA HK provide no independent research or analysis in the substance or preparation of this communication. Although information in this communication has been obtained from sources believed to be reliable, CHKL and CBNA HK do not guarantee its accuracy or completeness and accept no liability for any direct or consequential losses arising from its use.

This communication is for general information only, is not intended as a recommendation or an offer or solicitation for the purchase or sale of any products or services and should not be relied upon as financial advice. The information herein has not taken account of the objectives, financial situation or needs of any particular investor. Any person considering an investment should consider the suitability of the investment having regard to their objectives, financial situation and needs, and should seek independent advice before making an investment decision. You should obtain and consider the relevant product terms and conditions and risk disclosure statement, and consider if it's suitable for your objectives, financial situation or needs before making any investment decision. Investors are advised to obtain independent legal, financial and taxation advice prior to investing.

Investments are not deposits, are not protected by the Deposit Protection Scheme in Hong Kong and are subject to investment risk including the possible loss of the principal amount invested.

This communication does not constitute the distribution of any information in any jurisdiction in which it is unlawful to distribute such information to any person in such jurisdiction.

CHKL does not provide discretionary portfolio management services.

Singapore: This communication is distributed in Singapore by Citibank Singapore Limited ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this communication. Please contact your Citigold/Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this communication. Investment products are not insured under the provisions of the Deposit Insurance and Policy Owners' Protection Schemes Act of Singapore and are not eligible for deposit insurance coverage under the Deposit Insurance Scheme.

This communication is for general information only and should not be relied upon as financial advice. The information herein has no regard to the specific objectives, financial situation and particular needs of any specific person and is not intended to be an exhaustive discussion of the strategies or concepts mentioned herein or tax or legal advice. Any person interested in the strategies or concepts mentioned herein should consult their independent tax, legal, financial or other advisors, as appropriate. This communication does not constitute the distribution of any information or the making of any offer or solicitation by anyone in any jurisdiction in which such distribution or offer is not authorized or to any person to whom it is unlawful to distribute such information or make any offer or solicitation.

Before making any investment, each investor must obtain the investment offering materials, which include a description of the risks, fees and expenses and the performance history, if any, which may be considered in connection with making an investment decision. Interested investors should seek the advice of their financial adviser about the issues discussed herein as appropriate. Should investors choose not to seek such advice, they should carefully consider the risks associated with the investment and make a determination based upon the investor's own particular circumstances, that the investment is consistent with the investor's investment objectives and assess whether the investment product is suitable for themselves. Although information in this document has been obtained from sources believed to be reliable, CSL does not guarantee its accuracy or completeness and accept no liability for any direct or consequential losses arising from its use.

CSL does not provide discretionary portfolio management services.

UAE: This document is distributed in UAE by Citibank, N.A. UAE. Citibank N.A. UAE is licensed by UAE Securities and Commodities Authority ("SCA") to undertake the financial activity as Promoter under license number 602003.

Citibank N.A. UAE is registered with Central Bank of UAE under license numbers BSD/504/83 for Al Wasl Branch Dubai, 13/184/2019 for Mall of the Emirates Branch Dubai, BSD/2819/9 for Sharjah Branch, and BSD/692/83 for Abu Dhabi Branch.

This is not an official statement of Citigroup Inc. and may not reflect all of your investments with or made through Citibank. For an accurate record of your accounts and transactions, please consult your official statement. Before making any investment, each investor must obtain the investment offering materials, which include a description of the risks, fees and expenses and the performance history, if any, which may be considered in connection with making an investment decision. Each investor should carefully consider the risks associated with the investment and make a determination based upon the investor's own particular circumstances, that the investment is consistent with the investor's investment objectives. At any time, Citigroup companies may compensate affiliates and their representatives for providing products and services to clients.

United Kingdom: This document is distributed in the U.K. by Citibank UK Limited and in Jersey by Citibank N.A., Jersey Branch.

Citibank UK Limited is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. Our firm's Financial Services Register number is 805574. Citibank UK Limited is a company limited by shares registered in England and Wales with registered address at Citigroup Centre, Canada Square, Canary Wharf, London E14 5LB, Companies House Registration No. 11283101.

Citibank N.A., Jersey Branch is regulated by the Jersey Financial Services Commission. Citi International Personal Bank is registered in Jersey as a business name of Citibank N.A. The address of Citibank N.A., Jersey Branch is P.O. Box 104, 38 Esplanade, St Helier, Jersey JE4 8QB. Citibank N.A. is incorporated with limited liability in the USA. Head office: 399 Park Avenue, New York, NY 10043, USA.

© 2024 Citigroup Inc. Citi, Citi and Arc Design and other marks used herein are service marks of Citigroup Inc. or its affiliates, used and registered throughout the world.