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Scenarios for China's Economy

The world's second-largest economy has likely slipped into a recession, China. Most notably, the International Monetary Fund recently lowered its China GDP growth forecast for 2022 to 4.4%, well below the government's target of about 5.5% .....

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What are ESG Bonds?

In most cases, FIIs have stock positions on international financial markets. Because of the robust inflow of cash as a result, the companies that FIIs invest in typically have enhanced capital structures. As a result....

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Interstellar and Reality

The bright lights of the night sky have fascinated humans for generations. The stars visible from the naked eye have helped us shape the world as we know it today, drawing man's curiosity to what lies beyond the protective shell that we live in. Throughout history we have found maps and calculations that helped our ancestors travel and develop...

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Scenarios for China's economy

The world's second-largest economy has likely slipped into a recession, China. Most notably, the International Monetary Fund recently lowered its China GDP growth forecast for 2022 to 4.4%, well below the government's target of about 5.5%.

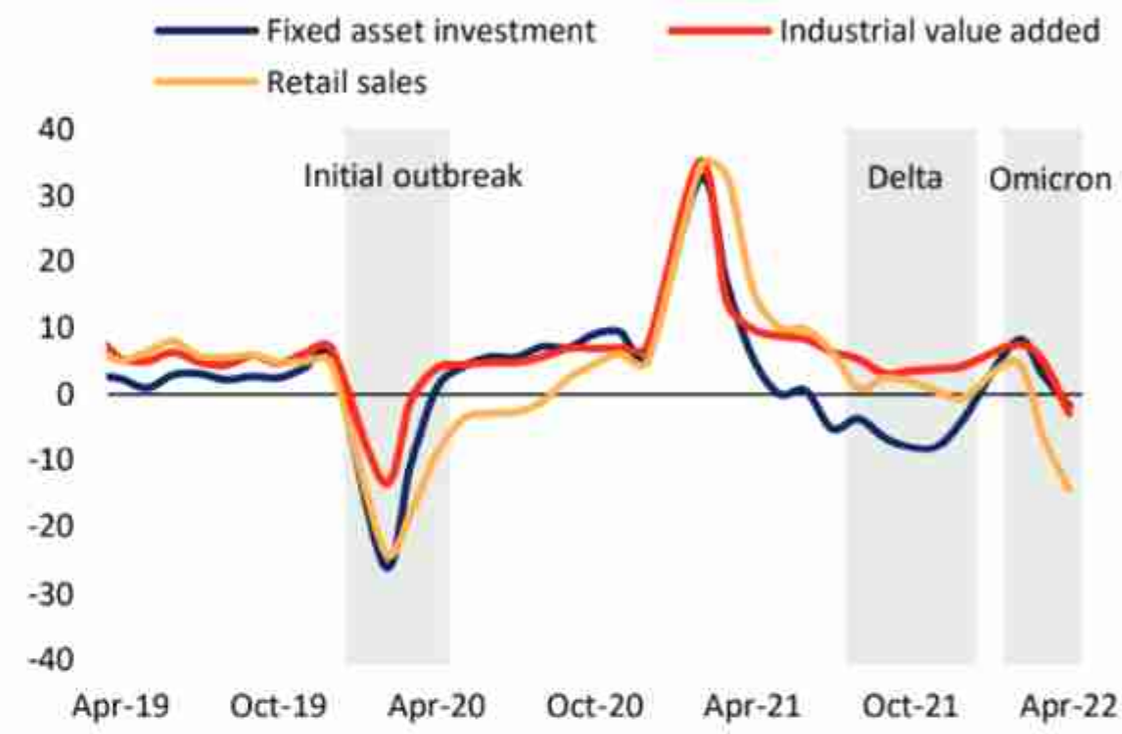
The Caixin Services Purchasing Managers' Index, a closely watched indicator of the services sector of China's economy, plunged to 36.2 in April from 42 in March (below 50 indicates contraction).

With China's manufacturing sector also shrinking last month, it appears that the world's second-biggest economy may have gotten smaller in April.

China and the global economy:

China may be losing its edge: According to Financial Times, 60% of companies and 82%(in 2022) of manufacturers now report their production slowed during the present outbreak due to lack of employees, inability to obtain supplies, or explicit factory halts resulting from the lockdowns.

Should major companies begin to abandon China, it could result in some big costs—both in terms of lost sales and higher production costs?



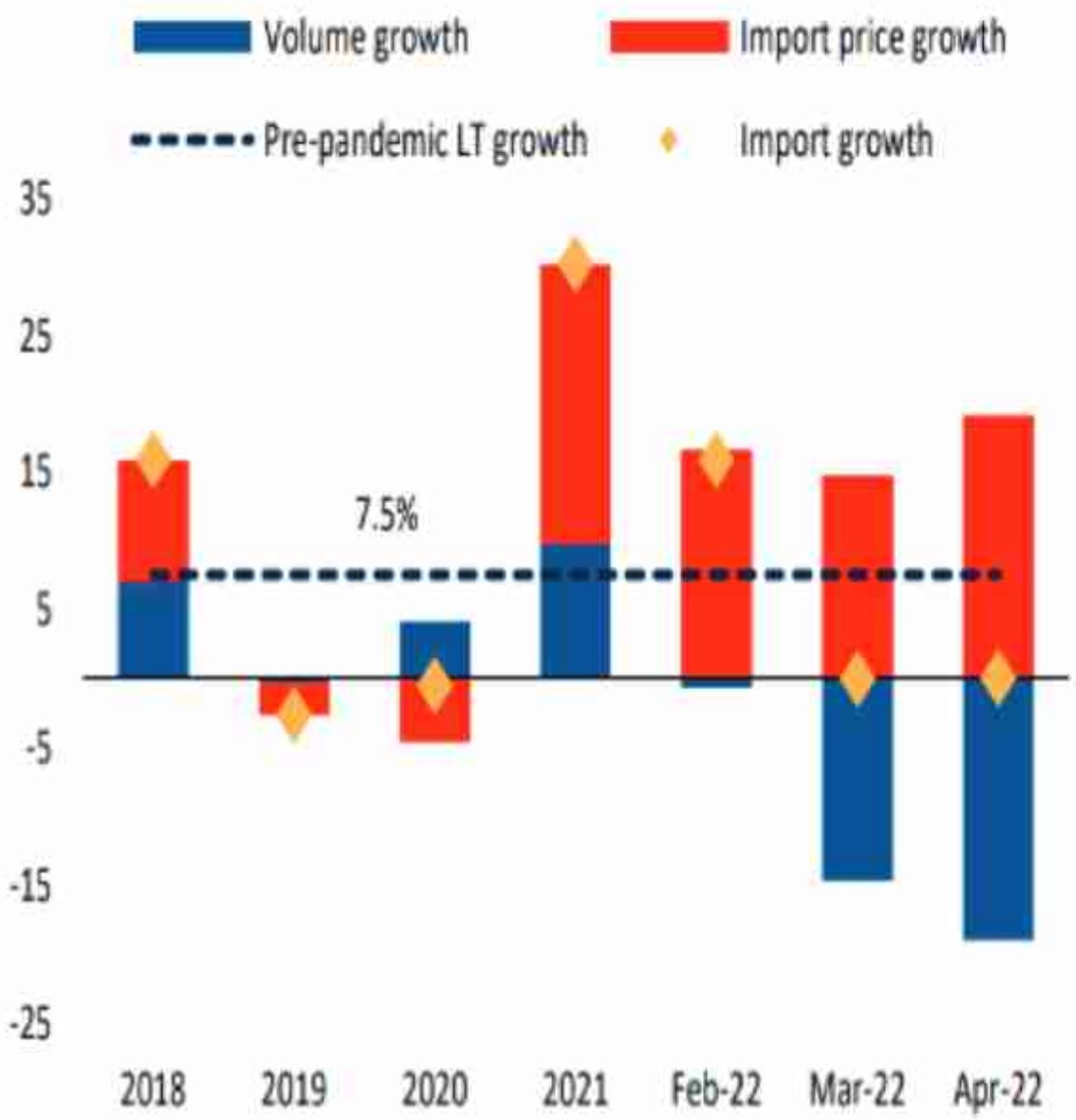
The global environment has significantly worsened after Russia's invasion of Ukraine followed by a number of countries imposing a variety of sanctions on Russia. Global inflation has risen sharply, and global financial conditions have tightened amid soaring energy and food prices.

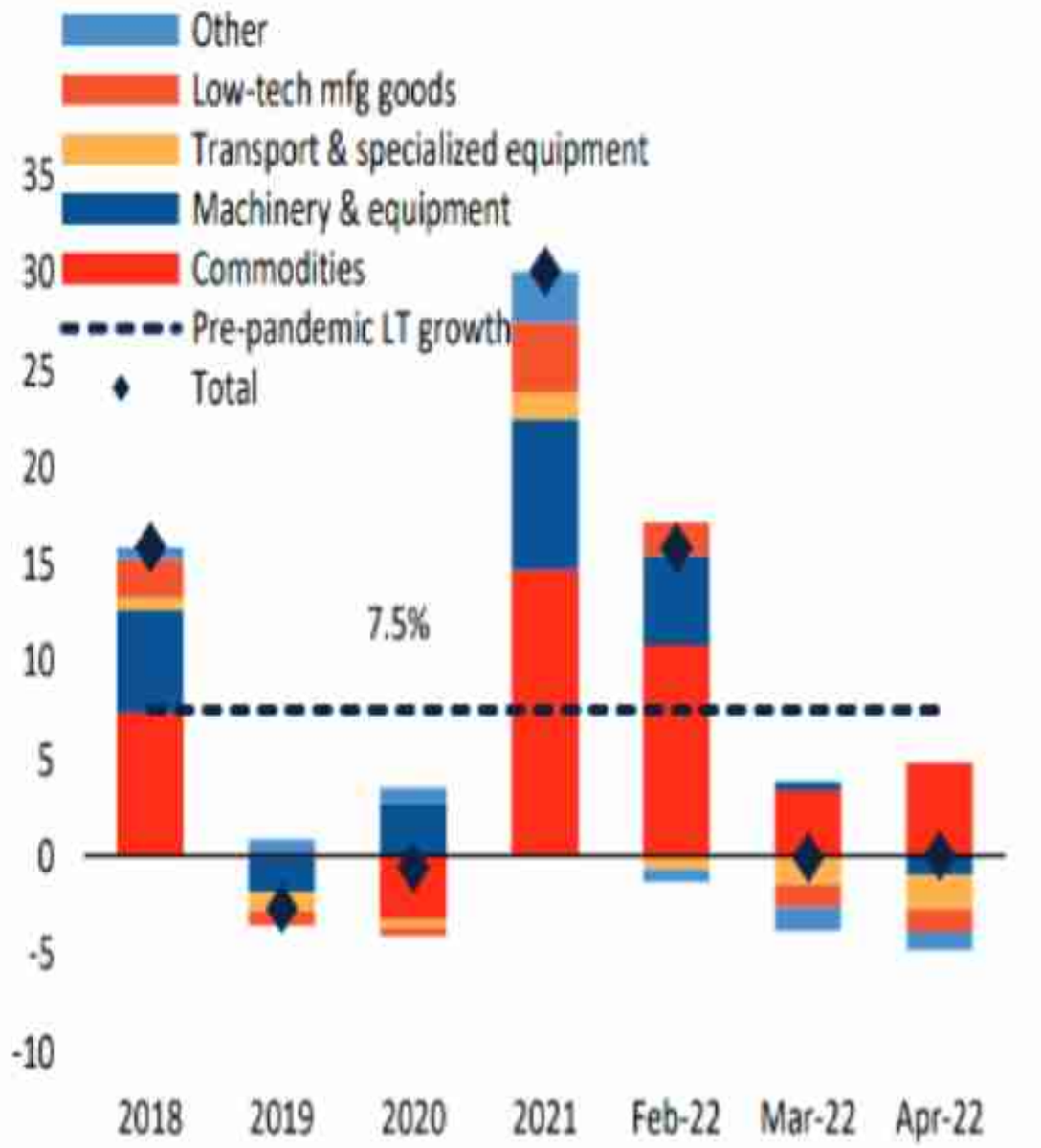
Global activity and trade have decelerated faster-than-expected, led by the manufacturing sector amid high inflation, tighter financing conditions, and persistent supply strains. After Chinese stocks declined considerably in the past months, Chinese authorities' COVID-19 lockdowns have added another headwind to the world's second-largest economy.

• Given China's importance in the global supply chain, investors may wish to look out for potential spillover effects to the global economy and another source of upward pressure on inflation.

• In accordance with the stress tests of Financial Times, which assumes economic decoupling and a growth slowdown, a diversified portfolio of global equities and U.S. bonds and real estate could lose 9% in 2022

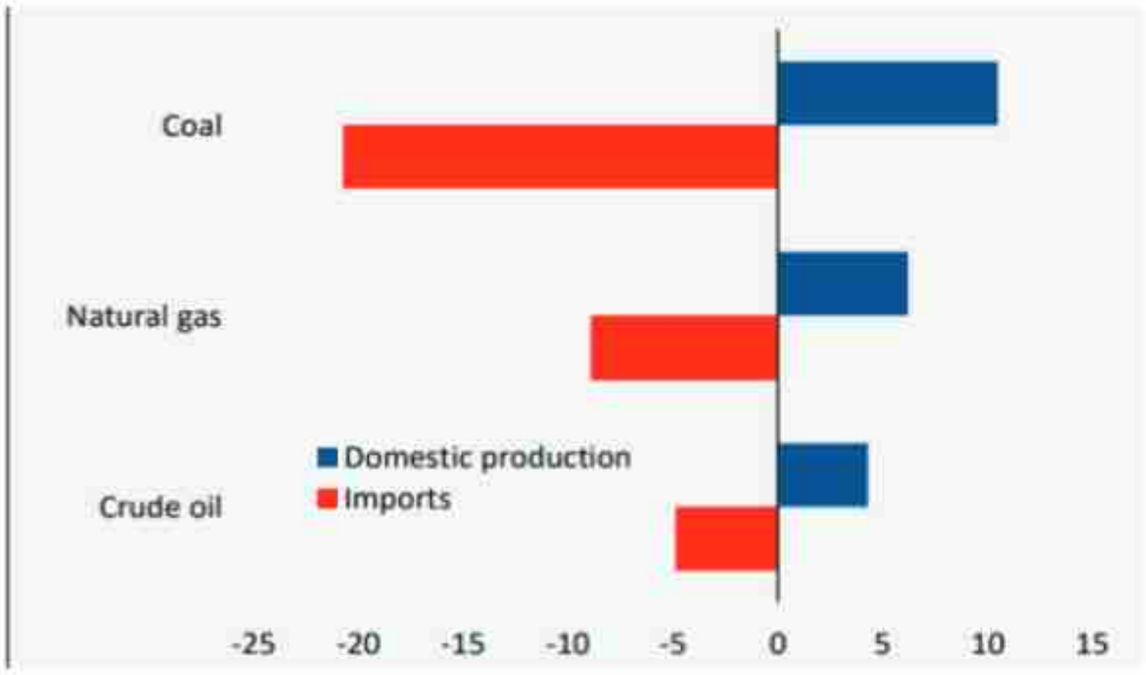
Following a robust performance in the first two months of 2022, import growth contracted in March and remained flat in April. After growing at about 15.5 percent y/y in the first two months, import growth contracted mildly on a y/y basis in March and remained subdued in April in US dollar terms. Excluding price effects, imports in volume terms contracted by 19.1 percent y/y in April, reflecting the weakening of domestic demand and the likely turn in the inventory cycle following the peak in late 2021. The downturn followed a long period of double-digit import growth, which was supported by rebuilding inventories following the first wave of COVID-19 in early 2020 and fiscal policy easing to stimulate infrastructure investment in the second half of 2021. Following the war in Ukraine, China stepped up imports of some strategic commodities, including soybeans and grains.





Source: The World Bank

value terms, and narrow the trade surplus.



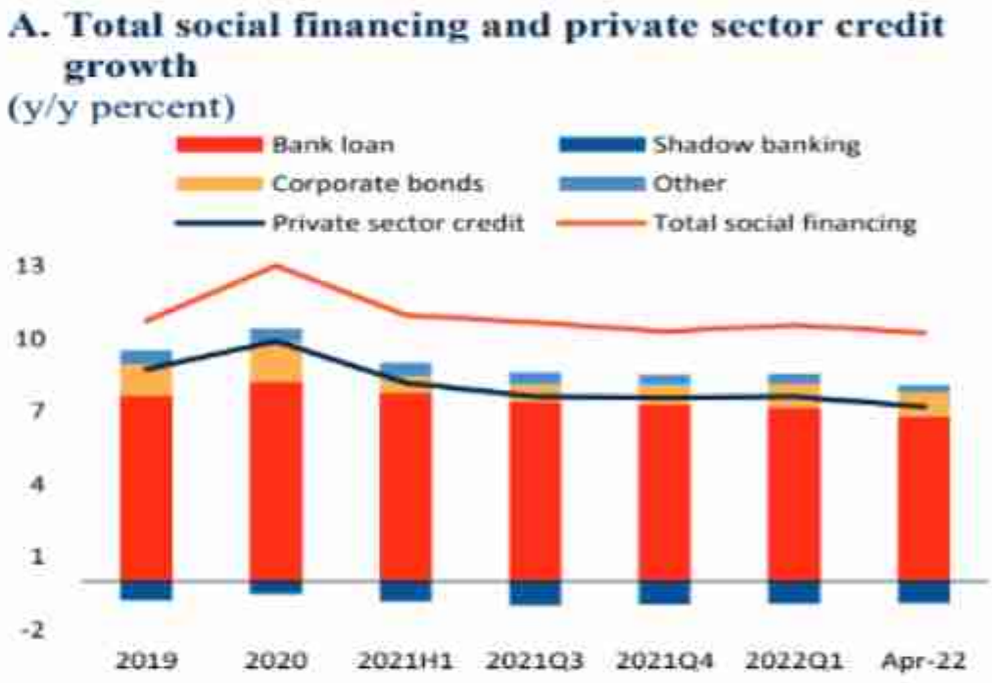
Source: The World Bank

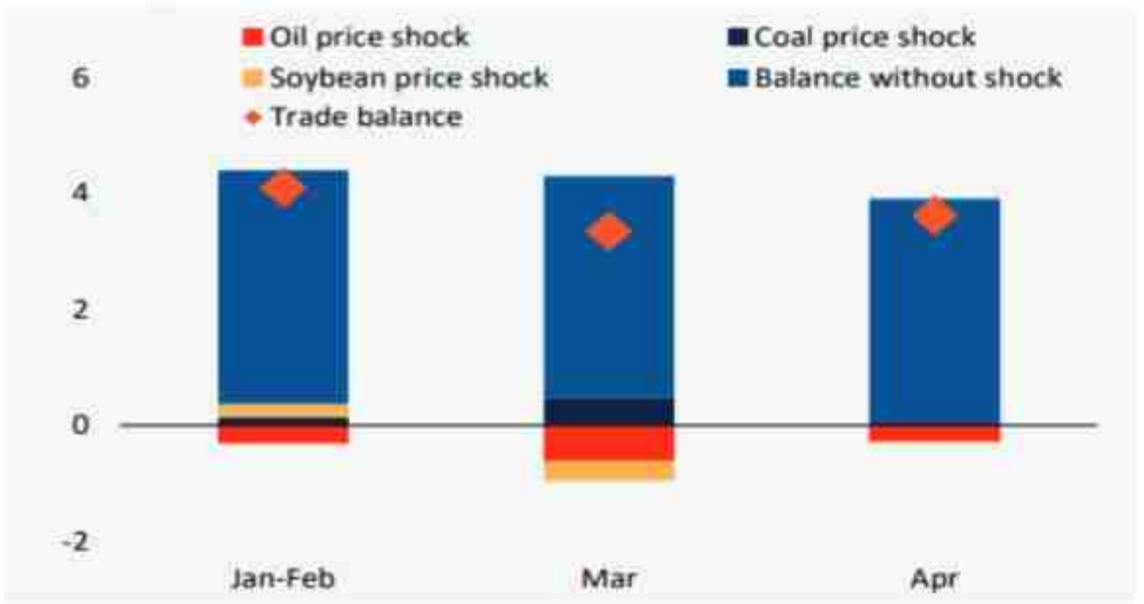
Chinese commodities :

The commodity price shock from the war has had a limited impact on China's trade balance so far, despite China's net commodity importer status. In general, higher commodity prices would worsen China's terms of trade, increase imports in value terms, and narrow the trade surplus. To quantify the impact of changing imported commodity prices on the trade balance, the world bank, estimate the impulse responses of price shocks based on the local projection method.

The analysis finds that increases in the price of imported crude oil knocked off 0.6 percent and 0.3 percent, respectively, of monthly GDP from the trade surplus in March and April. Similarly, the higher prices of imported soybeans reduced the trade surplus by 0.3 percent of the monthly GDP in March. At the same time, falling prices of imported coal improved the trade surplus by 0.5 percent of the monthly GDP in March 2022.

In addition to the uncertainty around the Russia-Ukraine war, global investors may wish to closely monitor developments in China. Potential macroeconomic headwinds in the world's second-largest economy, which is heavily intertwined with the global economy, could have a significant impact on global multi-asset-class portfolios.





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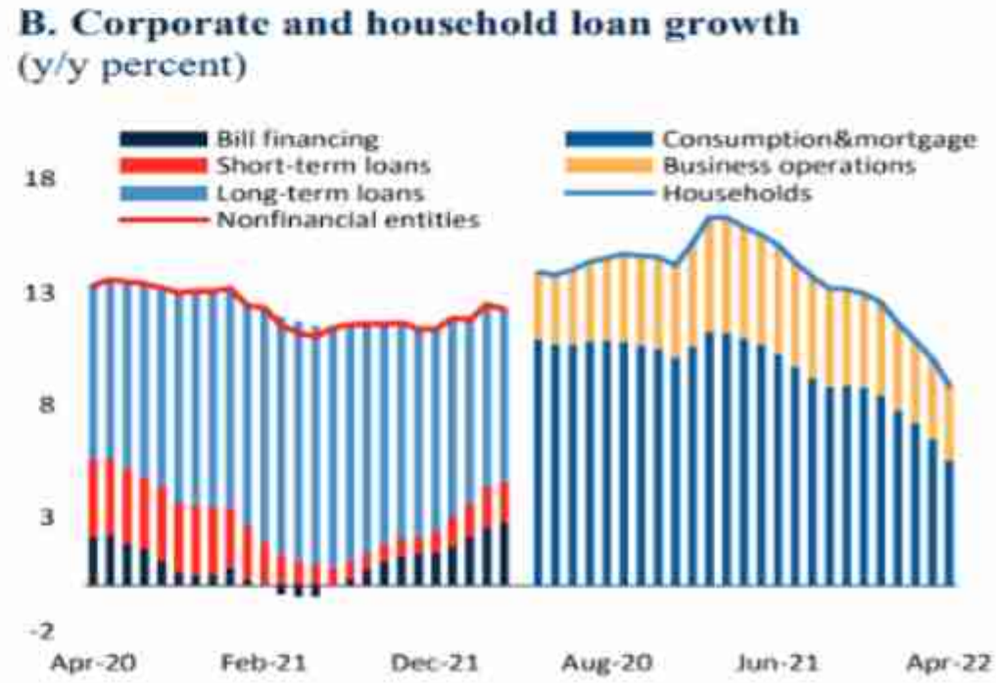


Source: The World Bank

Chinese banks :

Five of China's largest banks showed wounds from the ongoing property sector crisis, with bad debts linked to real estate surging in the first half of the year, even as they posted sound profits against the backdrop of an economic slowdown. The credit quality of commercial banks' loan portfolios has improved on aggregate, but the banking sector profitability remained weak.

The reported aggregate non-performing loan (NPL) ratio and special mention loan (SML) ratio continued to decrease, standing at 1.7 percent and 2.3 percent, respectively, at the end of 2021, both lower than pre-pandemic levels.

The proactive resolution of problem loans may have contributed to the improvement in 2021, as commercial banks resolved RMB 3.1 trillion of NPLs, representing 1.9 percent of total outstanding bank loans.

The conclusion of micro and small enterprise (MSE) loans, continuing property sector weakness, economic disruptions due to COVID-related restrictions and geopolitical uncertainties are likely to add to banks' credit quality stress.

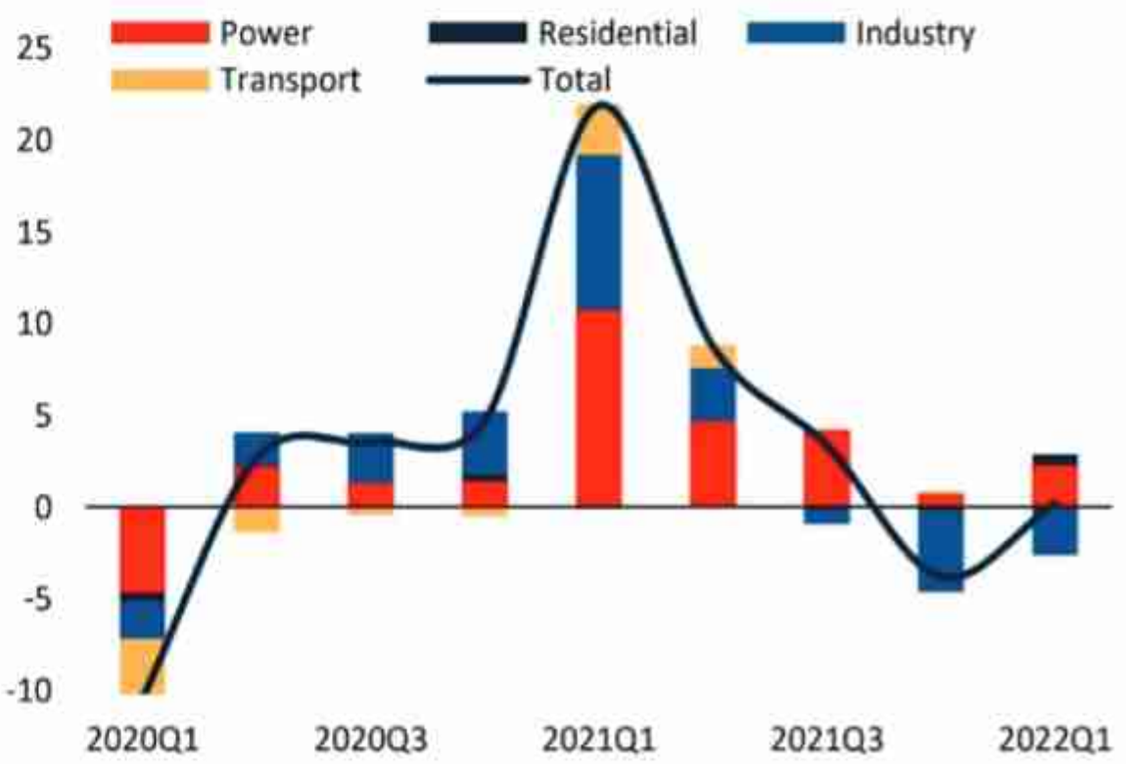
Meanwhile, wider recognition of problem loans and increased provisioning, along with a compression of net interest margins has weighed on profitability. Although the aggregate return on equity (ROE) and return on assets (ROA) in 2021 improved from one year ago, both measures are still markedly lower than end-2019 levels.

Chinese Energy Crisis:

As bad as the world's energy crisis has been this year, it would be much worse without a wetter-than-usual start to China's rainy season. While heavy downpours in southern China have been a public safety crisis, closing schools and causing fatalities, they've also led to reduced air-conditioning demand and surging hydropower generation. Both have lessened the need for fossil fuels, allowing the world's biggest coal and gas importer to cut purchases and leave more supply for other energy-starved nations. The graph above shows the sector-wise usage of Hydro energy.

Hydro is still China's biggest carbon-free energy resource, accounting for about as much power as solar, wind, and nuclear combined, although growth has flattened as topography limits expansion.

Hydropower generation through the end of May rose 18% from last year as rains filled reservoirs and two massive projects along tributaries of the Yangtze River ramped up output. The additional power would have consumed about 27 million tons of coal if it had come from thermal plants, based on data from the US Energy Information Administration.



Source: The World Bank

"Regions importing hydropower from southwest China are certainly able to alleviate some pressure of high thermal fuel costs," said David Fishman, a Shanghai-based analyst with The Lantau Group.

At the same time, rains helped keep temperatures cool in southern China, where intense heat in May and June last year contributed to a coal shortage that forced local governments to cut off power to factories. This May, the economic powerhouse of Guangdong province saw power consumption drop 15% from the previous year, saving about 4.6 million tons of coal.

Alongside stringent virus restrictions in Shanghai and northern China, the rains have helped suppress fossil fuel usage so that thermal power generation recorded a 3.5% annual drop through the end of May, the worst annual performance for the first five months since 2016. That's cut imports of coal by 14% and liquefied natural gas by 20%, just as international prices have soared after Russia invaded Ukraine.

And there's no telling where global prices would be without that reduction. China has demonstrated it's willing to stump up whatever it takes for energy security, and officials are taking the same line this year with promises that factories won't face the same curtailments that struck last summer and fall.

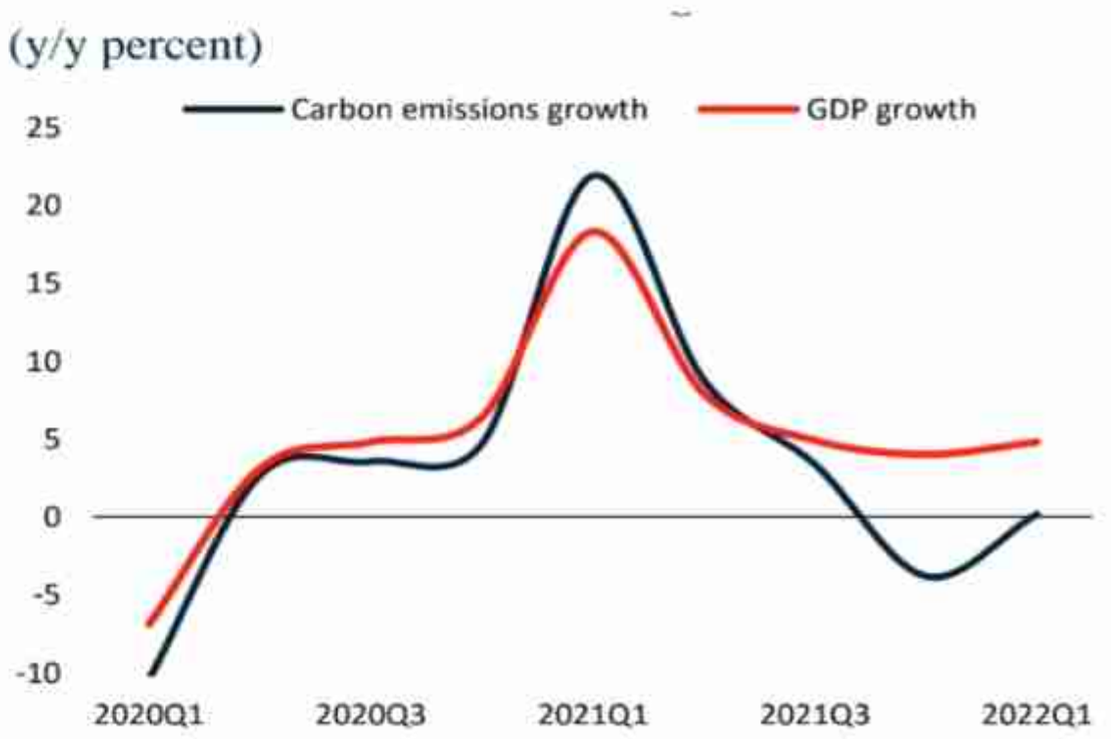
While fossil fuels, notably coal-fired power, still account for most of China's energy mix, investment is shifting fast to renewables like solar and wind. Transitioning away from fossil fuels will help China meet its climate change goals, but renewable sources provide intermittent supply, making it difficult to provide base load power.

How will China Cope?

Beijing has stressed there will be no repeat of the power crisis that rocked the country last year, with President Xi Jinping vowing that China "will never allow a major incident like large-scale power cuts to happen again". Premier Li Keqiang also pledged "resolute efforts" to stamp out electricity cuts during a trip to southwestern Yunnan province in May. Earlier this month, Vice-Premier Han Zheng said China will step up support for coal-fired power plants and miners to ensure a stable energy supply.

As a result, coal projects in China – the world's largest consumer of fossil fuel – continue to expand, undermining efforts to tackle climate change. In the fourth quarter of 2021, newly approved coal-fired power capacity increased 36.3 per cent year on year, while in the first quarter of this year it jumped 103.1 per cent, according to Essence Securities.

Guangdong, the wealthiest province in China, will add 6.7 million kilowatts of coal power projects, with the goal to have them online before 2024. In February,



Source: The World Bank

China's steel industry, the second largest carbon emitter, delayed carbon peaking by five years to 2030.

Efforts to expand green investment, supported by a technological shift away from high polluting and energy-intensive industries, will intensify amid heightened geopolitical tensions and the fallout from the war in Ukraine. Given the projected sharp slowdown in global growth, net exports will play a negligible role in supporting economic growth.

-Divyanshi Arora and Hrishita Gavhane

INTERSTELLAR AND REALITY

Introduction

The bright lights of the night sky have fascinated humans for generations. The stars visible from the naked eye have helped us shape the world as we know it today, drawing man's curiosity to what lies beyond the protective shell that we live in. Throughout history, we have found maps and calculations that helped our ancestors travel and develop, which were dependent on the stars that we could see. It was inevitable that we would realise that this is not all that exists. Black holes, dark energy, dark matter, gamma rays, and even alcohol have been found to be existing in the universe, proving that while humans may not be able to grasp the sheer enormity of the universe, we could fit it into our understanding of the same to make sense of it. And as our civilisation and technological prowess developed, so did our ambition, and today we find ourselves at the beginning of what could be the modern day equivalent of the bronze age revolution.

A history of Space Exploration

Our ancestors got insanely good at timing the tide, mapping the world, gauging the weather, and also understanding that the Earth is NOT the centre of the universe. And then, in 1608, the first telescope was made in the Netherlands. Just like with all our technological developments, humanity only moved upwards and faster towards understanding the blackness that surrounds us. The German V2 was the first object to make it to outer space in 1943, marking a pivotal point in space exploration as that one successful German flight answered one of our species' most baffling questions: can we make it out of here?

Thereon, the story of the "space race" is quite popularly known and well cherished. Two of the world's then most powerful countries going all out to one up the other gave us years of exciting achievements, the timing of which would seem absurd and unrealistic given that the first flight took place in 1903, a mere 54 years before the first satellite reached outer space. The space race saw that there was no stone left unturned when it came to the downpour of torrential funding, top-notch manpower, breathtaking technological development, and of course, the ruthless advertising. Even at the height of the cold war and in the subsequent years, the determination and the drive to explore more and do more has not dulled. If anything, countries like India, China, Japan, and the EU have joined the bandwagon to go star sailing.

The timeline of space exploration is very simple when seen at a glance. But just like the universe, it has a lot more to it when you take a closer look.

1608 - The world's first telescope is invented

1688 - Isaac Newton invents the first reflecting tele

scope

1926 - The world's first liquid fuelled rocket is invented and launched

1942 - The German V2 reached outer space

1957 - The Sputnik 1 successfully orbits the Earth (and starts the "space race")

1961 - Yuri Gagarin becomes the first man in space

1963 - Valentina Tereshkova becomes the first woman in space (yes, the soviets are winning)
1965 - Mariner 4 makes the first flyby of Mars

1969 - "One small step for man, one giant leap for mankind" - Neil Armstrong steps on the moon.

1977 - Voyager 1 and 2 are launched into space (they both crossed into interstellar space in 2012, effectively beyond the sun's reach)

1990 - The Hubble Telescope is launched into space

1998 - The International Space Station (also the most expensive manmade thing) is launched into space

When one sits back and thinks about it, we have achieved more in terms of space exploration in the past 50 years than we have in the past 100. The sheer vastness of the universe and our absolute ignorance of what lies out there is what makes it such an exciting and challenging prospect to so many industrialists who want history to mark them as a revolutionist.

The fuel to the rocket

While this article so far has focused on the scientific marvels of the space world, let's talk about the brains and of course the money behind it. Elon Musk, Jeff Bezos, Richard Branson, and many more big industry names have been pouring in extensive man-hours and ship loads of money into space exploration and travel. Two of the world's most infamous billionaires did fly to space over a year ago. And their ambitions to send people like you and me to space is only growing. While it might just be another avenue for the big, omnipresent corporations of the world to capitalise on. But this rivalry to be the first to open "commercial space travel" is reaping enormous benefits for the future of intergalactic exploration. From a science perspective, it is a continuous stream of funds for experimentation. And from a capitalist perspective, it is, to be put subtly, a cash cow.

There are over 10,000 companies worldwide that are fighting for human presence in space. The US houses over half of these, with 5,582 companies in its foray, and the next country with the most number of space-centric companies is the UK, with 612 ventures in its fold. These organisations have created over $4 Trillion in value over the past decade. A lot of these companies, however, specialise in areas like navigation mapping, cloud solutions, and manufacturing because, while the driving factor is of course interstellar colonisation, it requires a lot of ground work that provides us with the technological development to achieve our ultimate objective.

But just like fuel, which burns to provide energy but leaves behind toxic residue, this relentless fight to be the first in space travel has led to a very dangerous and quite frankly, destructive situation : The Kessler Syndrome. In a nutshell, it is a phenomenon where a small amount of space debris creates a dominoes effect and creates impossibly high amount of space debris. Picture this: There are over three thousand defunct spacecrafts still orbiting the Earth. All of them are flying at speeds of 27,500 km/hr or more. If the shrapnel or even a piece of cloth were to hit any of the spacecrafts, the triggering explosion would have over a million tiny bits of debris destroying the functional satellites, endangering any future rocket launches for decades to come before we clean it all up. Apart from hampering the existing infrastructure, we would be rendered without internet or even GPS, leading to a time of utter helplessness.

Current players

A lot of developed and developing countries in the world run their own space programs. NASA, ISRO, ESA are some of the more popular programs that have achieved remarkable results in the arena, notably the Voyager missions, the James Webb Telescope, the Mangalyan mission on a remarkably thin budget and many more laurels that decorate their walls. The respective nations have also realised the importance of space exploration as is visible in the government budget allocations that have increased in the past few years. The USA's budget is a whopping $41 Billion. The last few years have also seen private players like Virgin Galactic, Blue Origin, SpaceX emerge as promising candidates in the future of space travel. Their factor of success is their ability to bring down the manufacturing costs of equipment and research while boosting development. The SpaceX Starship brought orbital delivery costs down to an estimated $500/kilogram as compared to the $20,000/kilogram NASA spent on its iconic Space Shuttle. But the good part about this industry is that the government and the private players are actually working in tandem, benefitting from the other's discoveries and learning from the other's mistakes.

What then future holds?

NASA has maintained a steady, continuous and most importantly, safe human presence of humans for twenty years over 240 miles above land. Considering our state of affairs a hundred years ago, this is an impressive feat, to say the least. If we continue this pace of development, we are bound to colonise Mars in the next decade. The corporate behemoths mentioned above have set their sights on making space tourism a reality in the next few years. The total value generated by the industry is expected to grow to $10 trillion by 2030. The budget for the research and development of technology that helps us build space economies has increased exponentially. Space tech holds enormous economic potential, not just in tourism but in communication systems as well, as is clearly demonstrated by SpaceX's Starlink.

Conclusion

Given the astonishing rate of development that space exploration and travel has seen, it would not be far fetched to say that there would be breakthroughs that would change the way we view life and space in our lifetime. Humans have always possessed a conspicuous determination that has driven us forward. Trillions of dollars of revenue will be generated, thousands of

thousands of jobs will be created, impossible technological breakthroughs will take place, and development will happen at a pace that has not been seen before. The emerging opportunity in the industry is boundless. Space exploration is a niche avenue that will rule and run economies in the coming years, guiding us to our greatest achievements if done right or inevitable and ultimate doom and demise if we do it wrong.

- Aasthaa Kumaarr

What are ESG bonds?

ESG stands for environmental, social, and governance in ESG bonds. It establishes requirements that businesses must achieve to be considered socially or environmentally responsible. Through ESG bonds, issuers raise capital for good governance, social and environmental effects. They fall within the category of debt instruments where the use of bond proceeds is subject to specific environmental, social, or governance condition.

Environmental elements focus on protecting the environment, social factors analyse how a firm treats its employees and the community at large, and governance factors analyse how a corporation is run.

Why should one think of ESG bonds in the first place?

- Investing in ESG bonds not only checks a box on the portfolio but also enables one to combine ethical investing with social investing. Since the issuer is obligated to submit annual reports and specific information about their investments, it is possible to determine the purpose for which money is being used if there is the transparency required to be classified under ESG.

- They are liquid investments that have transparency, making it simpler to convert when the need arises. Additionally, it makes it simpler for investor to diversify their portfolio beyond just standard bonds.

- It also aids in risk management because these assets are thought to entail less risk than others because they have lower credit risks. As a result, it aids in balancing the portfolio with other assets that carry risk.

- In addition to other advantages, it also offers tax exemption. ESG bond interest is exempt from state tax in various states, including California and New Jersey. Regarding interest rates and repayment schedules, ESG bonds provide advantages similar to those of conventional bonds. Bonds are a liquid investment since they can be purchased or traded at any time.

Is Sustainability all that one should consider?

- Given that ESG bonds can be purchased at any moment, which causes price changes, fluctuating prices may be one reason why someone decides against purchasing them.

- It also runs the risk of having a political impact; any modification to governmental regulations may necessitate a revision to the projects for which the funds were raised.

- Adhering to Sustainability may appear appealing at first, but it may also be counterproductive because sustainable initiatives are typically more expensive than conventional projects and take longer to complete.

Why should big investors and businesses choose ESG issue?

Because they are better prepared to handle the impact

of unfavourable occurrences like harsh weather conditions, listed organisations that recognise and address ESG risks and opportunities are more likely to outperform those that do not. Additionally, they better meet emerging demands, such as those brought on by decarbonization.

For instance, if fossil fuel corporations address their sustainability issues sooner, they can save expensive asset decommissioning and write-downs by cancelling expansion projects and substituting them with renewable or zero-emission programmes.

Examples of Project funded with ESG bonds
Microsoft

The biggest software firm in the world, Microsoft, also controls the cloud platform market.

- Commercial highlights: Microsoft's software products generate significant, rising subscription revenue. With its Azure platform, the business is the No. 2 player in the cloud computing market.
- Microsoft's aggressive acquisition pipeline and Azure's performance should enable significant future expansion.
- Microsoft shareholders have received 25% total annualised returns over the last 15 years. Microsoft's fiscal year ended June 30, 2021, saw an 18% increase in revenue to $168 billion and a 40% increase in diluted EPS to $8.05.

Highlights from ESG Microsoft's innovation in energy efficiency get them recognition as a leading ESG firm. Microsoft is aiming for 100% renewable energy by 2025, helped by its collaboration with the Black-owned solar startup Volt Energy. The corporation aims to compensate for all of the carbon emissions it has generated since 1975 by the year 2050.

Pool

- Pool Company distributes pool supplies to retail stores, repair shops, contractors, and pool builders.
- Commercial highlights With 120,000 wholesale clients in Australia, Europe, and North America, Pool leads its market. The business has a solid history of growing its market share, making wise acquisitions, and enhancing operational effectiveness.
- Pool has profited from a rise in demand for swimming pools brought on by the pandemic. In 2021, the corporation posted record EPS and sales. Sales jumped by 35% to $5.3 billion over the prior year, and diluted EPS rose by 78% to $15.97.

The business's 12-month EPS for the period ending March 31, 2022, was $17.96, up 68.8% over the previous year. The 10-year annualised total return of the pool is close to 30%.

Highlights from ESG Pool: participates in the EPA's WaterSense programme and offers Eco Select products. The business makes information available to consumers to encourage responsible water and wastewater management. Along with giving money to charities like the National Forest Foundation and Human Rights organisations, Pool has taught children how to swim for free.

Types of ESG Bonds

1. Green Bonds: Bonds issued specifically to finance initiatives (new or ongoing) that have a positive influence on the environment. Examples include wastewater management, sustainable water, carbon neutrality, and clean transportation.

2. Social Bonds: Bonds specially issued to finance initiatives (new or ongoing) with a beneficial social impact. Examples include the creation of affordable housing, workforce diversity, and basic infrastructure.

3. Sustainability Bonds: Bonds whose revenues are solely used for a mix of social and environmental projects.

4. Sustainability-Linked Bonds (SLBs): These bonds, which should not be confused with sustainable bonds, acquire their name from the issuers' commitment to ESG objectives and targets rather than from the use of proceeds. The profits from these bonds may be used by the issuers for any purpose, but they must meet the objectives they have stated. As a punishment for the issuer in the event that it does not meet the target(s), SLBs have coupon step-ups in place.

Conclusion

ESG bonds have a number of significant benefits, including lower costs, lower risk, steady returns, ESG transparency, and the option to choose bonds that are relevant to personally significant concerns.

But it doesn't mean there aren't some significant drawbacks to ESG bonds. They need to be standardized for ESG reporting, they frequently offer lower interest rates than traditional bonds, and they are still subject to market changes.

Nevertheless, ESG bonds provide excellent potential, and investors are putting a record amount of money behind them. While it took almost 12 years to reach the first $1 trillion in ESG bonds, it might take a little over a year to hit the $2 trillion mark, according to the US market.

-Akshaya Pawar

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