



Future Financial Prospective - FFP

For Dedicated Shareholders, Investors, Partners and Investing Corporations

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Forward

Welcome to our latest edition of our Financial Prospective, which aims to provide much-needed context and clarity, at a time when volatility and uncertainty weigh on investors' minds. Uncertainty is rife in financial markets in the midst of the conflict in Ukraine, rampant inflation, and recessionary risks. Turning to secular themes may be one way to avoid the short-term noise.

The CEO asked me last year to lead a review of the future of the world's financial system, and what it might mean for the bank's agenda, toolkit and capabilities over the coming decade. We agreed this work should be grounded in how finance serves the economy and in turn, how the bank can enable innovation, empower competition and build resilience.

The team and I have kept this uppermost in our minds. Over the past months, I have met with over three hundred entrepreneurs, financiers, tech firms, global investors, consumer groups, charities, policymakers and business leaders across the globe. At each roundtable or meeting, I asked for workable suggestions for how to improve finance and what we can learn from other markets or pilots. I also looked at how data standards and protocols can improve the plumbing of capital markets and empower competition. It is striking from my meetings that the world's largest asset owners, insurance companies, asset managers and index providers do not yet feel they have sufficiently robust data to assess whether companies on individual level are transition-ready for climate change.

I have investigated new vulnerabilities and evolving risks. Do world financials have top cyber-security and how can it improve? What could happen if the big tech firms that are dipping their toes in financial services dive in? What can we learn from the previous experiences of leading online platforms moving into financial services? Where are the vulnerabilities from a decade of ultra-low rates around the world? I have sought to balance cutting-edge thinking with evidence and realism.

Priorities

Let me highlight a few priorities in the recommendations.

The first section explores how the bank can support the digital economy to enable innovation and empower competition, while ensuring monetary and financial stability. One example is the payments system. In Sweden, cash payments have fallen by **80 percent** over the past decade. Our analysis suggests most banks around the globe may only be four to six years behind. ATM usage is down **9 percent** so far this year, an acceleration on **2018**. Digital payments bring many benefits. However, the Swedish experience shows that without a coordinated plan, the pace of change risks excluding some groups in society. That is why a joined-up roadmap for payments infrastructure without leaving anyone behind — alongside next generation payments regulation — should be a priority.

Another priority should be for financial services to embrace cloud technologies, which have matured to the point they can meet the high expectations of regulators and financial institutions. Shifting from in-house data storage and processing to cloud environments can speed up innovation, enable use of the best analytical tools, increase competition and build resilience. For mid-sized firms in particular upgrading to the cloud can materially improve cyber-security. To enable international financial firms to innovate and compete on a level playing field, the bank should play a leading role in taking advantage of public cloud in a resilient way in the financial sector.

The second section addresses financing major transitions, such as changes in demographics, climate change or addressing the shifts in global markets.

The transition to a low-carbon economy is vital for the planet. It poses risks and opportunities for the financial sector and the economy. The bank is already a world leader in focusing on climate change. Roundtables highlighted that investors, lenders, insurers lack a clear view of how companies will fare as the environment changes, regulations evolve, new technologies emerge, and customer behavior shifts. Without this information, financial markets cannot price climate-related risks and opportunities effectively. The bank should champion the mainstreaming of decision useful climate disclosures to help stakeholders assess if a company is transition-ready. Armed with this data, it should also undertake a climate change stress test of the Cypriot financial institutions.

The third section explores how the financial system can build resilience and address the unbundling of financial services.

The bank should be a world leader in the use of digital regulation. Machine learning and new data sets can strengthen the bank's armory to spot irregularities and get a better picture of the system's overall health and emerging risks. There is huge scope to use advanced analytics and new data sets for macroeconomic trends, financial surveillance and supervision. The explosion in data in finance demands new techniques. Supervisory teams now receive the equivalent of twice the entire works of Shakespeare of reading each week. This is going to continue to increase.

The financial system is under almost constant cyber-attack. Firms, in collaboration with authorities, are preventing the overwhelming majority of incidents and investing to stay ahead. Individual institutions cannot prevent all attacks, yet in our connected world, a paralyzing attack on one firm could

potentially cause loss of confidence in others. To protect customers, financial institutions and public confidence, the bank and private sector should look to enhance data recovery in the event of a major incident, including a mechanism for firms to step in for each other. This should ideally be led by the private sector. Meanwhile, the bank will want to continue to help up the game of individuals, institutions and corporations alongside other authorities.

The bank has long played a highly influential role in charting the course of finance. The recommendations, which are put out in this review, will, I hope, create substantial benefits for consumers and businesses and underpin a more resilient, effective and efficient wholesale and retail financial system. I hope they will also prove useful to the many central banks around the world wrestling with similar challenges.

All forecasts demand humility. To make my recommendations as all-weather as possible, I have taken a dual approach developing scenarios, including with help from industry experts, while also analyzing developments elsewhere in the world. I am delighted that the bank, some before publishing this report, is already taking many of my recommendations forward. However, there remains much to do in the years ahead. The job of protecting the financial system is never done.

I would like to thank the CEO for his generous support and vision in establishing this review. I would also love to express my immeasurable gratitude to my team and everyone who has been involved until the publication of this report.

This review has benefited from a collaborative spirit and a wide variety of inputs across the bank, public and private sectors. I would like to express my thanks for everyone's contribution and challenge, as well as the hosts of our regional and overseas roundtables.

Regards,

Alex Christoforou G.

Chief Financial Officer - CFO

Universal Banks - UB



Global economy at a glance

Projecting what the future holds is an important exercise for business and governments looking to plan. More importantly, we look ahead to the trends we expect to come to the fore in the global economy in the year to come.

We identify three themes for this year:

Global economy projected to grow at record speed: In our main scenario, we expect the global economy to expand by around 5 percent in market exchange rates, which is the fastest rate recorded this century. Our projection is conditional on a successful deployment and spread of effective vaccines and continued accommodative fiscal, financial and monetary conditions. Nevertheless, the next three to six months will continue to be challenging, particularly for the Northern Hemisphere countries going through the winter months as they could be forced to further localized or full economy-wide lockdowns as displayed in Cyprus. Output in some advanced economies, for example, could contract in the first quarter of the year. We think that economic growth is more likely to pick up in the second half of the year, which is also when we expect large advanced economies to have vaccinated a substantial share of their population.





Recovery will be uneven across sectors, countries and income levels: By the end of 2022 or early 2023, we expect the global economy to revert to its pre-pandemic level of output. However, this picture masks an uneven pattern. At one end of the spectrum is the conflict between Russia and Ukraine. On the other end are mostly advanced economies, which are either service-based or more, focused on exporting capital goods and are unlikely to recover to their pre-crisis levels by the end of the year. In these economies, growing but lower levels of output is projected to lead to push up unemployment rates. In its economic outlook, the Organisation for Economic Co-operation and Development projects an unemployment rate of around 7 percent in its member states compared to pre-pandemic levels of around 5.5 percent. Most of the jobs affected are likely to be those at the bottom end of the earnings distribution that is likely to exacerbate income inequalities. We therefore expect governments' focus to gradually shift from fighting the pandemic that is making a comeback in recent times, the conflict in Eastern Europe to dealing with higher unemployment rates by upskilling their workforce and creating jobs in newly emerging labor-intensive sectors.

Synchronized push for green infrastructure: 2021 was the first year where the three main economies or trading blocs of the world — the US, the European Union and China — will refocus their efforts to fighting climate change. The US is expected to re-join the Paris Accord and host an international climate summit early in the year. EU member states are expected to finalize their plans to accelerate the transition towards a greener and more digital economy by the end of **2025**. The EU Commission is then expected to release the first tranche of grants and loans worth around **0.5 percent** of Eurozone GDP to speed up the process. Finally, China's fourteenth five-year plan is expected to be put to action — part of which includes increasing energy efficiency.

As a global financial center, the Cyprus has an opportunity to share in the growth of the global economy as well as help mobilize international finance to support the transition to a green economy. However, this means ensuring that the conditions are in place for safe, resilient and open international financial flows.

Political changes around the world affects the global economy and financial system and will keep doing so even in the decade ahead. For instance, the UK's exit from the EU which will be critical context against which policymakers in the UK, including financial institutions over there, will need to make decisions going forward. Irrespective of the outcome of "Brexit", there are numerous areas where we, Universal Banks - UB can collaborate internationally to contribute to an effective and safe global financial system.

This is critical, as over the next decade, emerging market economies or emerging markets will likely play a more central role in the global financial system as they continue to grow and open. By **2030**, China could be the world's biggest economy and India the third largest, with their combined output accounting for more than a quarter of global GDP particularly at market prices.

The Cypriot economy surpassed growth expectations in the first half of **2022**, mainly on the back of a strong domestic demand. Real GDP increased by **6.3 percent** in the first half of **2022** compared with the same period in **2021**. The vigorous increase of private consumption was mainly supported by an increase in employment and the use of savings accumulated during the pandemic period. Investment increased - except in construction - boosted by the inflow of foreign companies, especially in the information, communication and technology sector. It is also profiting from the implementation of the **Recovery and Resilience Plan**.

In contrast, investment in construction took a hit due to the supply disruptions and exceptionally high prices for construction material, and more recently by the tightened financial conditions. Growth was also supported by external demand for tourism and other services, notably transport, information and communication and financial.

The tourism sector outperformed and recovered most of ground lost during the pandemic. ICT foreign companies are establishing their headquarters in Cyprus. The Cypriot government has implemented a set of incentives Since the beginning of **2022**, **1100** companies with more than **9000** of employees have been registered in the Business Facilitation Unit of the Ministry of Energy, Commerce and Industry. These companies and employees have supported consumption, professional services and the real estate sector. The full impact on the real economy, the labor market and the external sector is still under examination by the Cypriot authorities.

The real estate sector continues to grow, albeit moderately. For **2022** as a whole, the economy showed solid growth, though as of the fourth quarter of the year, this growth is set to start weakening. The labor market has shown strength. Inflation in Cyprus is driven by high oil prices and supply disruptions. The current account deficit deteriorated in the first half of **2022**.



Recession and the future of financial markets

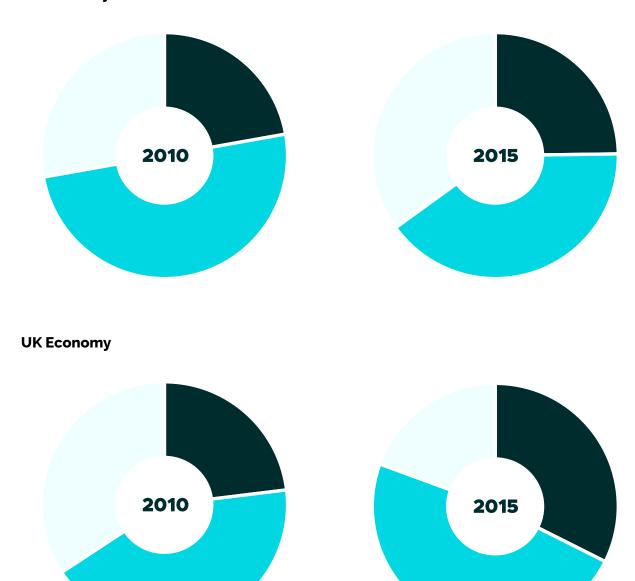
Right after the shortest recession on record, many market participants are already eyeing inflation rates and economic activity for signs of another recession – one of a very different kind. We provide a typology of recessions, study their effects on financial markets, and assess what this means for the next one.

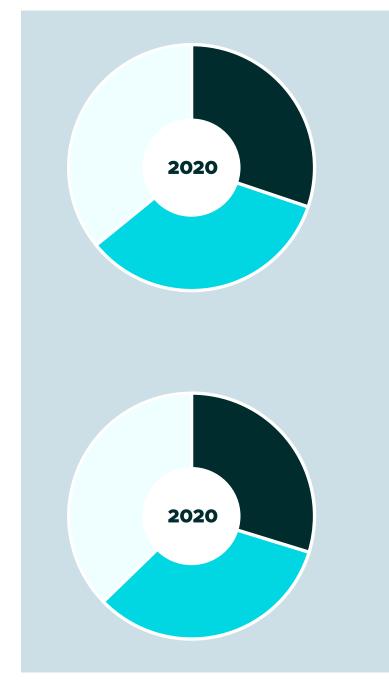
The term recession is widely used as a blanket term and therefore, lacks a clear definition. In this article, we employ the definition by the economists at the **National Bureau of Economic Research - NBER**. According to their definition, a recession or economic contraction describes the period between a peak and a trough in economic activity. To define these turning points for the US economy, a committee looks at a range of monthly activity indicators albeit without following a rigid rule.

The longest recession since **1900** for the United States spanned several years, starting in **1929**, while the shortest one was the most recent, pandemic-induced recession that only lasted two months. Recessions from a bird's eye view – One distinction often made is the behavior of inflation. The following charts display inflation, real GDP growth, and unemployment rates for the US, UK and Cyprus from **2010**. In a typical business cycle recession as it was in the UK in **1991**, inflation is reined in by aggressive monetary policy tightening. Recessions in macro context – US NBER-defined recessions and UK technical recessions; two consecutive quarters of negative quarter-on-quarter growth in gross domestic product and effects on growth, inflation and unemployment.

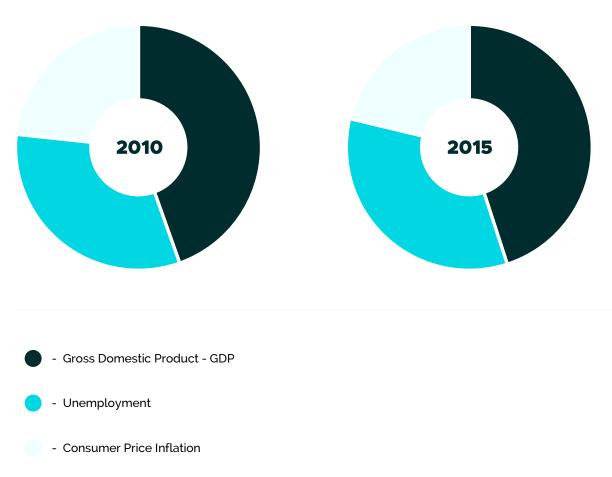
Observing recessions from a micro perspective, and looking at GDP from the income perspective, the data are a lot messier. However, one obvious observation in the last five decades is that first company profits suffer, and then employee pay declines for most of the contraction and the beginning of the expansion, before profits and finally total wages start to recover again. For Europe and many emerging economies, where the policy response relied more on automatic stabilizers such as unemployment insurance or short-time work, the cycle is not as advanced. This has implications for the risks stemming from a temporary period of extreme inflation. These risks are lower due to the earlier position in the cycle.

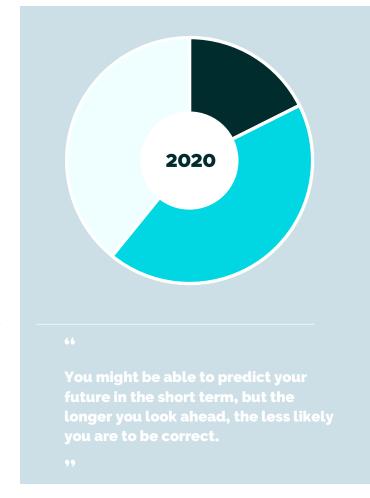
US Economy





Cyprus Economy





Recessions typically spill over from the real economy to financial markets - or the other way around, and therefore it comes a no surprise that historically they are the worst periods to hold risky assets. For our analysis, we computed cumulative losses since **1973** based on monthly total returns. Starting from a peak, we measure cumulative returns to the point when the peak-level is restored. A pure global equity portfolio sustained its heaviest losses during the global financial crisis.

By mixing in **40** percent of US government bonds – a very crude diversification strategy – the maximum drawdowns were roughly halved in most recessions. A more sophisticated diversification strategy could provide even more protection, but the data is not sufficiently long enough to allow legitimate comparison across recessions. From this perspective, the oil shocks seen in **1973** and **1979** were not the most frightening market event for a long-term investor. However, local equity markets had less international exposure then and valuations were much lower than seen more recently.

Market participants have been increasingly worried about stagflation risk this year. Stagflation describes a period of low growth and high inflation, traditionally seen as strange bedfellows, and was last experienced in the **1970s**. The key to assessing whether stagflation is coming or much-desired relief on the inflation is round the corner lies in inflation expectations. After a worrying surge in long-term inflation expectations last year, survey measures from both consumers and professional forecasters improved in the first quarter, re-strengthening inflation expectation anchors. This reflects the general trust in the ability of central banks to bring inflation back under control eventually. However, surveys for one-year ahead inflation expectations have climbed again this year. Worryingly, they will be the basis for many wage negotiations this year in a tightening labor market.

Similar increases for short-term inflation expectations were measured for the Cyprus and the Eurozone at large. However, as pointed out earlier, the cycle is less advanced than the US and UK one, which should dampen the inflationary effect of rising short-term expectations.

From valuations, it is clear that in equity markets are elevated in absolute terms. Using the approach to estimate cyclically adjusted price-earnings - CAPE - ratios for **S and P 500** first described by Professor Shiller in his book Irrational Exuberance, we find valuation about multiples of **35**. Based on the recessions seen in the past five decades, only the popping of the dotcom bubble started at a higher CAPE ratio. In the past, Shiller CAPE ratios could even go beyond **40**, but never with inflation rates outside of the **zero** to **five percent** range – a band in which US Federal Reserve banks typically feel more comfortable with an additional buffer added on top.

With mounting wage pressures and high stakes in equity valuations in mind, we prefer defensive sectors in equities and repeat the appeal of diversification in portfolios. Not only have economies become much less dependent on oil since the **1970s**, but the trilogy of globalization, the internationalization of asset markets, and innovative monetary policy have warped the financial landscape.

In turn, making it far more difficult, if possible, to compare the economy now with the past. What we can say with certainty is that when the next recession hits, a multi-asset diversified portfolio will be better equipped to withstand the brunt of it, and guard wealth.

Soundness indicator for the banking sector in Cyprus

	2019	2020	2021	2022
NPLs, all loans – EUR Billion	9.0	5.1	3.0	2.9
NPLs, all loans – percentage of total	27.9	17.7	11.0	11.2
NPLs, loans to NFCs – percentage of total	24.5	14.5	8.1	8.7
Restructured non-performing – percentage of total	-	-	-	-
Restructured performing – percentage of total	-	-	-	-
NPLs, loans to households - percentage of total	35.2	23.7	14.7	13.4
Restructured non-performing – percentage of total	-	-	-	-
Restructured performing – percentage of total	-	-	-	-
Coverage rate – Impairments and NPLs	55.2	46.2	42.7	46.2
Cost-income ratio	-	-	-	-
Lending margin	2.7	2.7	2.7	2.7
Common equity tier one ratio	-	-	-	-
Return on assets – annualized	0.3	0.2	0.1	0.2

NPLs - Non-Performing Loans

The figures cover the Cyprus operations of all domestic and foreign credit institutions operating in Cyprus on a consolidated basis. Local NPL definition was used until the end 2014. Starting with 2015, the EU NPL definition was used, as defined in Commission Implementing Regulation EU 2015 - 227, later amended by Commission Implementing Regulation EU 2015 1278. Figures exclude exposures to central banks and credit institutions.

Sovereign financing and ability to repay

The government debt-to-GDP ratio resumed its declining path in 2021 and is projected to continue decreasing over the 10-year projection period. In 2021, public debt fell by 12.5 percentage points to 101 percent of GDP, while by the end of 2022 it is expected to decrease further to 89.6 percent of GDP. For 2023 and 2024, the debt-to-GDP ratio is forecast to fall to some 84 percent and 77.7 percent, respectively. This reduction is mainly driven by the projected economic growth, in conjunction with high inflation alongside fiscal primary surpluses, and a reduction of the cash buffer accumulated since the beginning of the pandemic. Thereafter, the government debt ratio is projected to continue its downward path and to gradually decline over the coming decade.

The Cypriot government tapped international markets at highly favorable market conditions in January **2022**, issuing a **EUR 1 billion bond** - **3.8 percent** of GDP. The bond has a **10-year maturity** with a fixed interest rate of **0.95 percent**. According to the Public Debt Management Office, the new benchmark attracted a diverse set of investors. The bond covered a large part of the gross financing needs for **2022**.

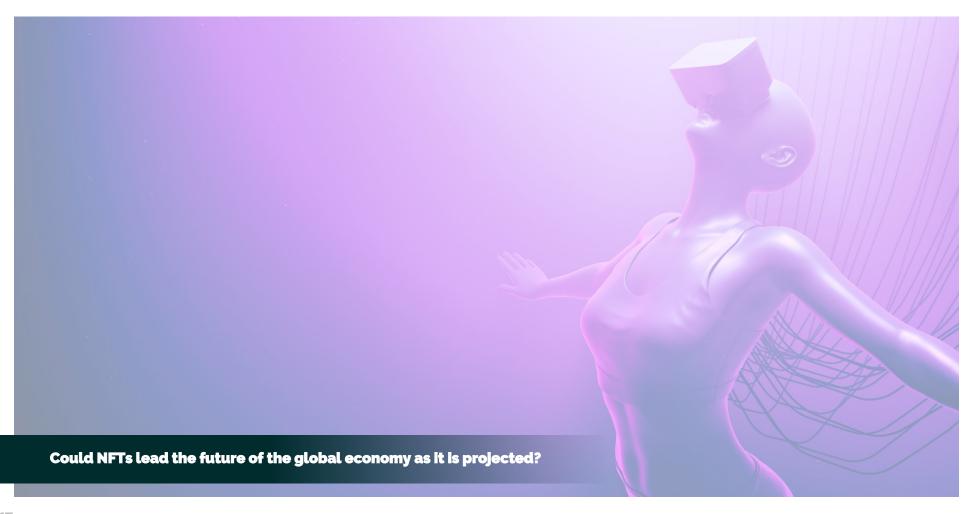
While sovereign yields increased this year, Cyprus benefited from upgrades in its debt ratings. Over this year, the yields on Cyprus' bonds have increased, against the background of a volatile global geopolitical situation, increasing inflation and tightening of monetary policy. The yields have broadly followed European trends. In mid-October, the yields on the **10-year bond** stood at around **4.1 percent**, while the **10-year spread** was **1.7 percent**. At the same time, **DBRS** and **S and P** upgraded Cyprus' rating by one notch in April and September **2022**, respectively - to BBB, which is two notches within the investment grade area. The main credit rating agencies rate Cyprus' sovereign debt at investment grade, with the exception of Moody's. The credit outlook is stable according to **S and P**, Fitch and DBRS, while Moody's switched to a positive outlook in August **2022**. Cyprus will start to repay in **2025**, with repayments scheduled to end in **2031**. Under the current repayment schedule, the first repayment amounts to EUR **0.35** billion in **2025**. In the following years until its full repayment in **2031**, repayments will reach **EUR 0.9 - 1.05** billion for each year

Cyprus retains the capacity to service its debt. On the background of increasing interest rates and yields, Cyprus is facing higher financing costs when accessing markets. Besides increasing interest rates, further risks relate to the macroeconomic outlook and risks to the fiscal balance - due to potential energy-related measures and health care costs. According to the DSA, Cyprus is assessed to face low fiscal sustainability risks in the short-term, while medium- and long-term risks appear to be medium.

Importantly, Cyprus has a large cash buffer, which could cover gross financing needs beyond the following **12** months. Furthermore, Cyprus is projected to have primary surpluses, which will help keep the government's gross financing needs for **2023** to **2024** at relatively low levels.



Non-fungible tokens



Non-fungible tokens – NFTs are blockchain-based assets representing ownership of unique digital or physical items. There is a range of views on what NFTs may represent. On the one hand, NFTs are thought to be a key element of the metaverse and **Web 3.0** and a revolution in how digital assets are marketed and monetized. On the other hand, the critics regard them as a fad fueled by celebrities and a way to launder money and avoid taxes. NFTs share many similarities with cryptocurrencies, with a key difference: they are not mutually interchangeable, or not fungible. We construct a comprehensive dataset for the overall NFT market, major NFT categories, and prominent NFT collections.

We aggregate transactions from the major exchanges and extensively cross-validate them with the direct blockchain data in order to establish the quality and reliability of the dataset. The data spans from the beginning of **2018** to the end of **2021**. The extent and comprehensiveness of our data allows both the overall and the granular view of the NFT market from studying the market performance at the daily frequency to detailed analysis at the collection and category level. The data covers not just the digital art and media categories but also a variety of other key objects such as those related to virtual worlds. This is important as many commentators argue that the main future applications of the NFTs are in their potential of becoming the cornerstone for the metaverse.

Given the comprehensive data that we assemble, a natural way to construct an overall index of the NFT market is to use the repeat sales method. The repeat sales method has been applied to many different markets where individual properties are heterogeneous and individual trades infrequent, such as the real estate market. The repeat sales method is particularly suitable for the NFT market because individual NFTs significantly differ from each other even within a given collection and also are traded infrequently, making alternative methods such as median price and hedonic models problematic.

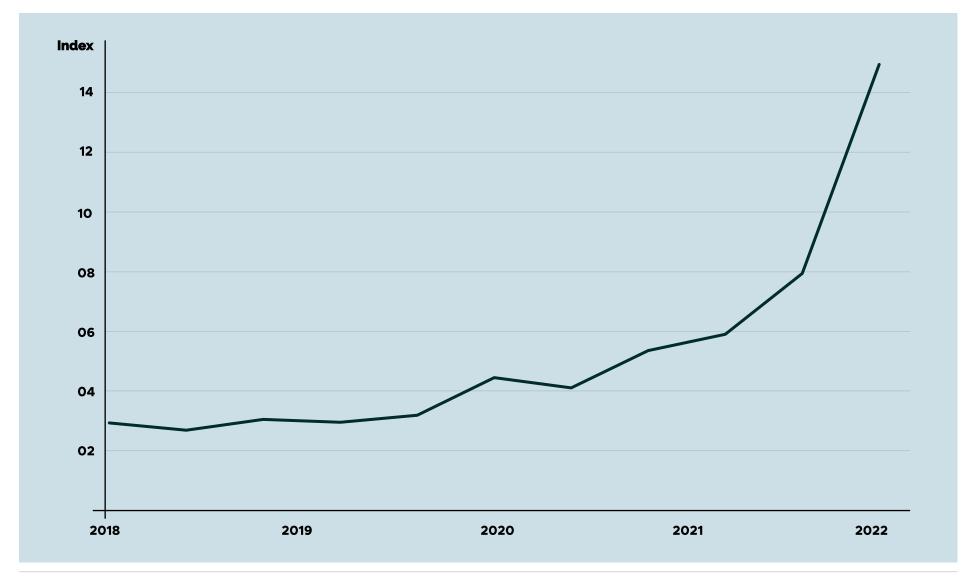
Blockchain allows for the "tokenization" of tangible and intangible assets to occur. This is the conversion of something of value into a digital token which can then be used on a blockchain application. They are designed to be fungible or non-fungible depending on the purpose. Cryptocurrencies, for example, are fungible tokens that can be traded on a like-for-like basis.

Non-fungible tokens represent unique digital assets that have their ownership secured on a blockchain. NFTs can be in the form of photos, digital artworks, GIFs, and audio clips to give just a few examples. However, by nature of being secured on a blockchain, NFTs can be traded using cryptocurrencies – with the blockchain holding irrefutable proof of an asset's ownership through peer-to-peer verification of transactions.

NFTs could also be tied to physical assets, such as real estate, which could revolutionize property transactions by mitigating trust-related market failures, and even reducing the costs of conveyancing. This is just one example of how the technology could modernize traditional markets

At present, NFTs broadly fall into five categories: collectibles, gaming, art, utilities, and the metaverse. Due to the clear desirability of these collections – as demonstrated by the 2021 NFT craze – many have compared blue-chip NFTs to alternative asset classes, such as classic cars, fine wine, and fine art.

This suggests that the tokens are perceived as a viable alternative investment opportunity or as a store of value. Consequently, the question arises whether NFTs should form a part of a digital asset portfolio or ultimately be part of investor portfolios.



Graphical representation of the NFT market Index, which plots the NFT index constructed based on the baseline repeat sales method. The beginning of the indices is normalized to one.

However, before being blinded by the sheer size and potential of the market, some points are worth looking at. In particular, potential investors should be mindful of a number of risk factors that could create strong headwinds for broader implementation and wide adoption of NFTs. The environmental impact of cryptocurrency is well known. Bitcoin is estimated to use around the same amount of energy annually as Egypt and Ethereum uses roughly the same as Finland. This is due to the computational power required in 'proof of work' networks to mine blocks – odds of success increase as more equipment that is powerful is used.

With most NFT transactions occurring on energy-intensive blockchains, the related carbon emissions are directly attributable to the tokens. However, Ethereum is soon due to transition its entire network to a 'proof of stake' model that will allow the network to scale while using **99 percent** less energy and reaching **100,000** transactions per second. It remains to be seen when exactly this will happen and the effects for decentralized finance more broadly.

Other issues worth considering with NFTs relate to security, crime and the nature of decentralized networks. There have been many reported instances of scam releases and cyberattacks which have led to people either losing money or having their digital assets stolen. In a sense this is similar to the risks associated with alternative investments such as art, wine, and classic cars. However, the decentralized nature of blockchain complicates this somewhat as there is no central authority to handle transactions and thus police the system. But rather, it is all based on peer-to-peer networks spanning multiple jurisdictions. In banking, if a fraudulent payment is made on an account, or even human error is made on a trading floor, it is common practice for banks to recompense fraud victims and for beneficiaries to acknowledge such errors.

In the crypto space, there is no bank or code of ethics on which to rely and so counterparty risk can be high. There have been many cases of people pricing NFTs for much less than they intended, for them to be snapped up by purchasing bots before they have chance to realize their mistake. A more interesting, and thought-provoking, finding is that the correlation between the changes in trading volume and those in the Google Trends score for Bitcoin and Ethereum started in very different positions in **January 2021**, and has moved steadily in an opposite direction since. The former - latter was positive - negative at the outset of our observation period, and has trended down - up over the next **16** months, finishing with the opposite sign at the end of the sample.

This could mean that crypto enthusiasts and investors have searched for the term Bitcoin when trading activity in NFTs took off initially.



Promising markets, our divestitures and future prospects

Making data-led decisions on market expansion has never been as important as it is in times like this, when the international economy is experiencing a tremendous downturn. The trickling effects of the pandemic has not been evenly distributed, coupled with the dispute in Eastern Europe; some countries, even within narrow confines of Western Europe have seen far greater economic impact than others. Similarly, businesses have reacted in different ways, from pausing all advertising to dialing up their spends aggressively. Those differences are further compounded across categories, with slow-to-evolve companies struggling to keep up in more digitalized landscapes.

We have spotted opportunities through the phase of exploration, ensuring all market expansion is powered by highly relevant and focused insight, launching into the newly discovered opportunities governed by an established process for growth and lastly, expanding by turning the nascent market into a mature one which involves optimizing media mix and embedding a constant, rigorous approach to test an learn.

As we delve deeper into the market, we looked at trends in how each site in the competitive set is acquiring those users. We returned our web category reporting to view channel traffic trended over time. That can help to pinpoint periods of more aggressive advertising, for instance, or when competitors receive large amounts of email traffic. While market and competitor insight is crucial throughout market expansion process, it is particularly important during the exploration process. Here, we look to spot market conditions that might impact our client's or member's earning potentials. Specifically, that means understanding the size of the market, the depth of the competition within it, and the landscape within the media channels in which we intend to launch it. Emerging markets, and their untapped potential, have captured the attention and imagination of businesses and governments at least as far back as the **1500s**. England, Spain, France, China, and others sent explorers to North America, expecting to bring home untold riches, comprised of gold, silver, and other natural resources.

Five-hundred years later, not much has changed. Emerging markets in Central and South America, Africa, the Middle East as well as in Asia and Eastern Europe continue to capture the imagination of businesses looking to expand their market share. With its millions of people and limited competition, businesses in mature markets are looking across borders and oceans to grow revenue and increase profits.

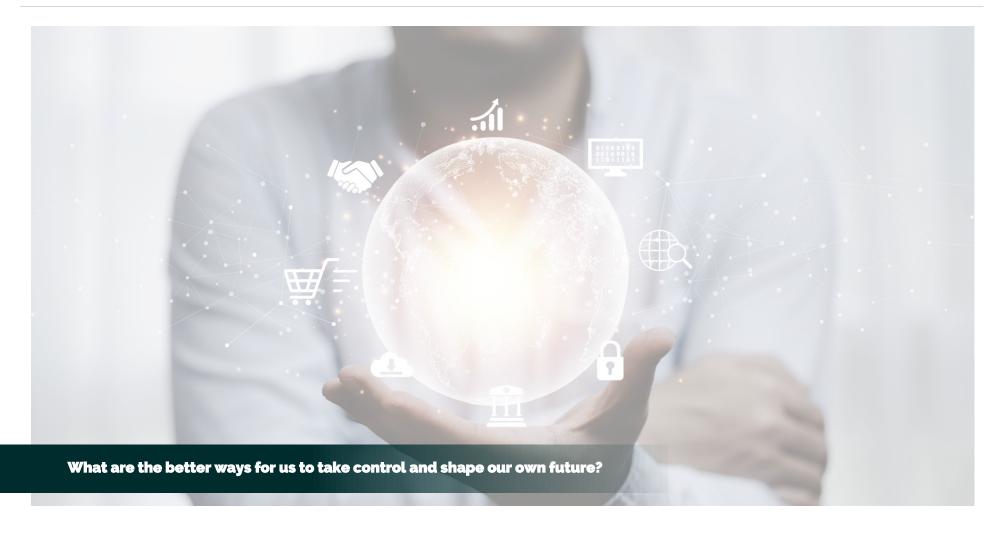
Today's technologies, expanded online presence and a high technological adoption ratio in emerging markets has encouraged businesses to reach out across borders. However, such opportunities do not come without challenges. For example, one software-as-a-service company spent months trying to expand to the Brazilian market. They updated their localization files, and translated their entire offering into Portuguese and Spanish. They believed their software was perfect for people living in Brazil.

However, the company immediately ran into logistical challenges. They wanted to hire local personnel but did not have the financial infrastructure needed to pay them. They ran into a similar complication trying to find a local host for their software, which would reduce download times. Making payments was proving to be a time-consuming hassle. Instead, the company used a cloud hosting solution that based in their country and hired translators rather than local talent to develop their marketing plan. The result was a disaster. The website and advertising were not connecting with users. For those that did try to download the product, analytics showed consumers were abandoning their downloads because it took too long. When the company did require making a payment to someone in Brazil, they discovered additional challenges. Without a local banking presence, making payments to their Brazilian vendors was a complex operation. Transaction delays often meant delays in getting projects moving, and high wire-transfer fees were eating into profits.

Expansion into emerging markets, even with a fully tested software-as-a-service product, was not going to be easy. Working in multiple markets can be a currency nightmare. Your vendors require payments in their local currencies, while your customers pay you in a different currency. Eventually, much of that money is going to need to be transferred into your preferred currency to pay for expenses or salaries. Exchanging all that money using traditional banking and forex channels will eat away at your margins through prohibitive fees and high exchange rates. Look for an online e-wallet that allows you to easily manage all these different currencies and is very attentive to your exchange needs. Your online e-wallet should allow you to seamlessly exchange funds from one currency to the next without charging exorbitant exchange rates.

Globalization has made it easier than ever to connect with local talent. Rather than relying on translators to simply translate their existing marketing materials into multiple languages, businesses have the opportunity to find recommended local agencies, and outsource their marketing activities to a group that understands the market and the local culture.

Utilizing local marketing talent can also open the door to local influencers. These influencers are capable of driving traffic to our site and expanding our reach to local online forums unknown to foreigners.



With the discovered opportunities in newer promising markets, divestments into such markets are strategic to ensure we make more to equally distribute to our members and shareholders around the globe. These markets contribute grossly to the inflow of capital and profits for the bank which is evenly distributed as profits to its shareholders, clients, investors and investing partners and affiliates and also to lubricate the mechanical parts of the bank to ensure its smooth operation as a reputable digital financial institution.

The bank has made strategic divestitures into Exchange Traded Funds – ETFs, Mutual Funds, Stocks, Bonds, Spreads, Real Estate and Energy Markets with a targeted yield of over **450 Billion USD** in profits in **20 years** from its year of inception.

To understand the nature of these aforementioned divestitures and how promising they are, let us have a deep dive on how they are likely to be the potential drivers of breakthrough for the current situation of the international markets for a guaranteed economic stability.

Exchange Traded Funds – ETFs - Exchange-traded-funds, or ETFs, are similar to mutual funds in that they invest in a basket of securities, such as stocks, bonds, or other asset classes. But unlike mutual funds and similar to a stock, ETFs can be traded whenever the markets are open. Exchange-traded fund is a basket of securities you buy or sell through a brokerage firm on a stock exchange.

By combining the diversification benefits of mutual funds with the ease of stock trading, ETFs are able to provide investors with a simple way to access the world's financial markets. Briefly, an ETF is a basket of securities that you can buy or sell through a brokerage firm on a stock exchange. ETFs are offered on virtually every conceivable asset class from traditional investments to so-called alternative assets like commodities or currencies. In addition, innovative ETF structures allow investors to short markets, to gain advantage, and to avoid short-term capital gains taxes.

An ETF is bought and sold like a company stock during the day when the stock exchanges are open. Just like a stock, an ETF has a ticker symbol and intraday price data can be easily obtained during the course of the trading day. Unlike a company stock, the number of shares outstanding of an ETF can change daily because of the continuous creation of new shares and the redemption of existing shares. The ability of an ETF to issue and redeem shares on an ongoing basis keeps the market price of ETFs in line with their underlying securities.

Although designed for individual investors, institutional investors play a key role in maintaining the liquidity and tracking integrity of the ETF through the purchase and sale of creation units, which are large blocks of ETF shares that can be exchanged for baskets of the underlying securities. When the price of the ETF deviates from the underlying asset value, institutions utilize the arbitrage mechanism afforded by creation units to bring the ETF price back into line with the underlying asset value.

Speculated to yield profits amounting to about



in **20** years after inception

ETFs have several advantages and they include:

- Low cost and tax efficiency they have generally lower expense ratios than mutual funds, which means they are cheaper for investing institutions like us to hold. More so, they are more tax efficient than mutual funds because they are structured in a way that allows them to minimize capital gains distributions.
- **Diversification and Liquidation** ETFs provide investing institutions with a means to diversify their portfolios across a broad range of securities such as stocks, bond and commodities. Because they are traded on exchange, they can be bought and sold throughout the trading day, just like individual stocks.
- Flexibility and Transparency They can be used for a variety of investment strategies, such as value investing, growth investing as well as income investing. They also disclose their holdings on a daily basis allowing investing institutions to see and evaluate exactly what they are holding.

Mutual Funds – This is a type of investment vehicle that pools money from multiple investors to purchase a diversified portfolio of securities such as stocks, bonds or other assets. The value of a mutual fund's shares is determined by the fund's net asset value which is calculated by dividing the total value of the fund's assets by the number of outstanding shares.

Each mutual fund is managed by a group of professional portfolio managers who are responsible for selecting securities to be included in the fund's portfolio and making decisions about when to buy and sell those securities. Investing institutions in a mutual fund receive a pro-rata share of the fund's earnings such as dividends and capital gains, based on the number of shares they hold.

Speculated to yield profits amounting to about

67B USD

in 20 years post inception

Mutual Funds have several advantages. It offers investing institutions several advantages including professional management, diversification and liquidity. They are also convenient for investors to gain exposure to wide range of securities or specific markets or sectors. However, mutual funds also have some bottlenecks such as high expense ratio and potential for capital gains taxes when shares are sold.

Stocks and bonds – Stocks, also known as equities, represent ownership in a publicly traded company. When you purchase a stock, you become a shareholder of that company and have a claim, however small on its assets and earnings. Stocks can provide an opportunity for investors to earn a return through capital appreciation when the stock price goes up or dividends, which is a portion of the company's profits, paid out to shareholders.

Bonds, on the other hand, are debt securities issued by companies, municipalities, and governments to raise capital. When you purchase a bond, you are lending money to the issuer in exchange for regular interest payments and the return of the principal when the bond matures. Bonds generally offer a lower potential return compared to stocks, but also have a lower level of risk.

Advantages of Stocks:

- Potential for high returns Historically, stocks have provided higher returns than other investments, such as bonds or cash.
- Diversification Stocks can be used to diversify a portfolio, providing exposure to different industries, sectors, and geographies.
- Liquidity Stocks are traded on an exchange, which means they can be bought and sold easily.

Advantages of Bonds:

- Stability Bonds are considered less risky than stocks, and their returns are generally more predictable.
- Regular income Bonds provide regular interest payments, which can be useful for generating income or meeting regular financial obligations.
- **Diversification** Bonds can be used to diversify a portfolio and to balance the risk of stocks.
- Lower volatility Bond prices are less volatile than stock prices, which means they are less likely to experience large price swings.

Speculated to yield profits amounting to about

78B USD

in 20 years post inception

Real estate – Real estate investment refers to the acquisition, ownership, management, rental or sale of real property for profit. This can include residential and commercial properties, as well as land and other types of real estate. Real estate investors may purchase properties with the intention of holding onto them for a long period of time, or they may flip properties for a quick profit. They may also generate income through rental income from tenants.

Real estate investment can be done through various methods such as:

- Direct ownership buying a property and renting it out or holding onto it for appreciation.
- Real estate investment trusts REITs investing in a trust that owns and operates income-producing real estate.
- **Crowdfunding platforms** pooling money with other investors to purchase a property.
- Real estate development buying land or properties, renovating or developing them, and then selling them for a profit.
- Real estate notes Investing in a promissory note secured by a mortgage on a property.

Speculated to yield profits amounting to about

112B USD

in 20 years post inception

Investing in real estate can provide several advantages, including:

- Potential for long-term appreciation Real estate values can increase over time, providing the potential for significant returns on investment.
- Cash flow Rental income from tenants can provide a consistent source of income, which can be used to cover expenses and generate profit.
- Tax benefits Real estate investors may be able to take advantage of deductions and credits that can lower their tax liability.
- **Diversification** Investing in real estate can add diversification to an investment portfolio, reducing overall risk.
- Leverage Real estate investments can be made with the use of leverage, which can amplify returns but also increase risk.
- Tangible asset Real estate is a tangible asset that can be seen and touched, providing a sense of security for investors.

Energy markets – The energy market are the marketplaces where the buying and selling of energy commodities such as electricity, natural gas, and coal take place. Investment in energy markets refers to the purchase of securities or assets related to the production, distribution, and sale of energy commodities such as electricity, natural gas, and coal. This can include investments in:

- Energy companies Investing in publicly traded companies that are involved in the production, distribution, and sale of energy.
- Energy infrastructure Investing in assets such as pipelines, transmission lines, and storage facilities that are used to transport and store energy.
- Renewable energy Investing in companies that produce energy from renewable sources such as solar, wind, and hydroelectric power.
- Energy ETFs Investing in exchange-traded funds that track a basket of energy-related stocks.
- Energy Mutual funds Investing in mutual funds that hold a diversified portfolio of energy stocks and bonds
- Energy project finance Investing in specific energy projects such as wind farm, solar plants, etc.

Investment in energy markets can provide exposure to the growth and development of the energy industry, as well as the potential for returns on investment. The energy market is highly regulated and influenced by government policies, technological developments, and market conditions such as supply and demand. It also has a significant impact on the global economy, and fluctuations in energy prices can have far-reaching effects on industries

and consumers therefore, energy markets can be highly cyclical and subject to fluctuations in supply and demand, as well as changes in government policies and regulations.

Speculated to yield profits amounting to about

130B USD

in 20 years post inception

Conclusion

Following decades of slow productivity growth and faltering innovation potency, evidence is building for the existence of two types of novel innovation waves, each potentially having large productivity and welfare impacts – the digital age wave and the deep science wave. However, the positive effects of these waves will take a long time to materialize; numerous obstacles, particularly in the area of technology adoption and diffusion, have to be overcome.

Digital Age innovation and its advanced ICT solutions need to increase their sophistication, if they are to substantially increase productivity in the services sector. It is also uncertain whether existing productivity metrics are up to capturing the potency of innovation.

Many societal preoccupations, and many of the impacts of novel digital age and deep science innovations, are focused on well-being, including health, better education, the environment and housing. But they do not necessarily accord with the established productivity concept of producing more with less. This requires a fundamental rethink about how we measure innovation impacts and outcomes – a fertile field for future innovation measurement and policy work.

Finally, if innovation today is more oriented toward solving urgent challenges rather than merely driving enterprise productivity the linkage between innovation and productivity gains will, unsurprisingly, become weaker. Ultimately, this requires better metrics for measuring those innovation impacts that can be felt beyond firm-level productivity.

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