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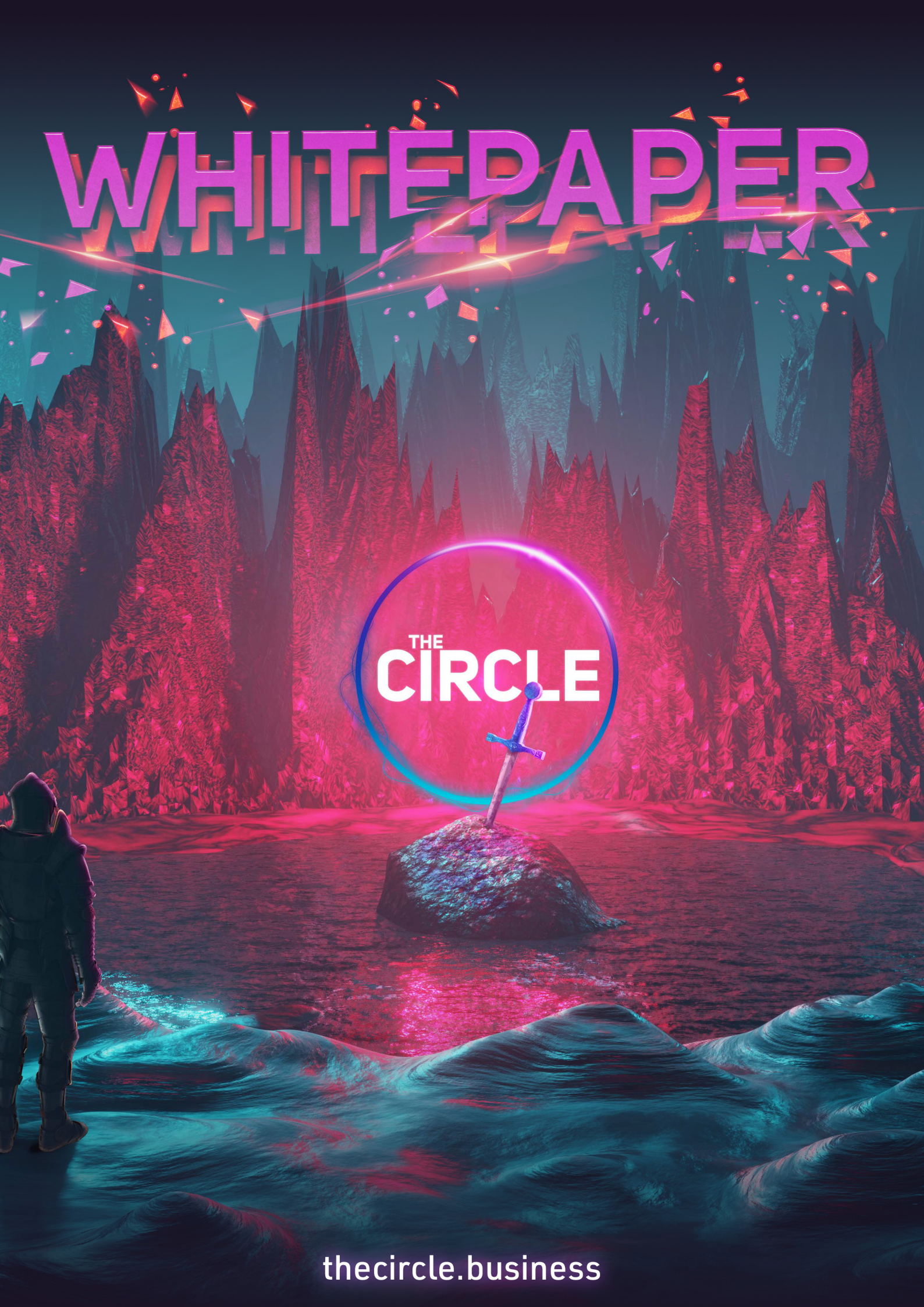

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01 Introduction to the Main Theme: Store of Value

What is a Store of Value?

A store of value is any asset, currency or product that retains its value over a long period of time. In order to be considered a store of value, it has to have a stable value or increase its value over time, but in any case, it doesn't decrease in value.

Understanding what is a store of value

In order for an item to be part of this category, it must have the same or higher value after a period of time.

The central concept of preserving value is risk avoidance. Prices can be maintained if there is a constant demand for the underlying item. To illustrate, gold and other precious metals are a storehouse of value because they can be useful due to their long shelf life without sacrificing value. On the other hand, for example, milk is a bad store of value because it is perishable and will expire over time and end up without value.

Interest-bearing assets, such as US Treasury bonds (T-bonds), also qualify for being a store of value because they retain their value while generating income.

Examples of stores of value

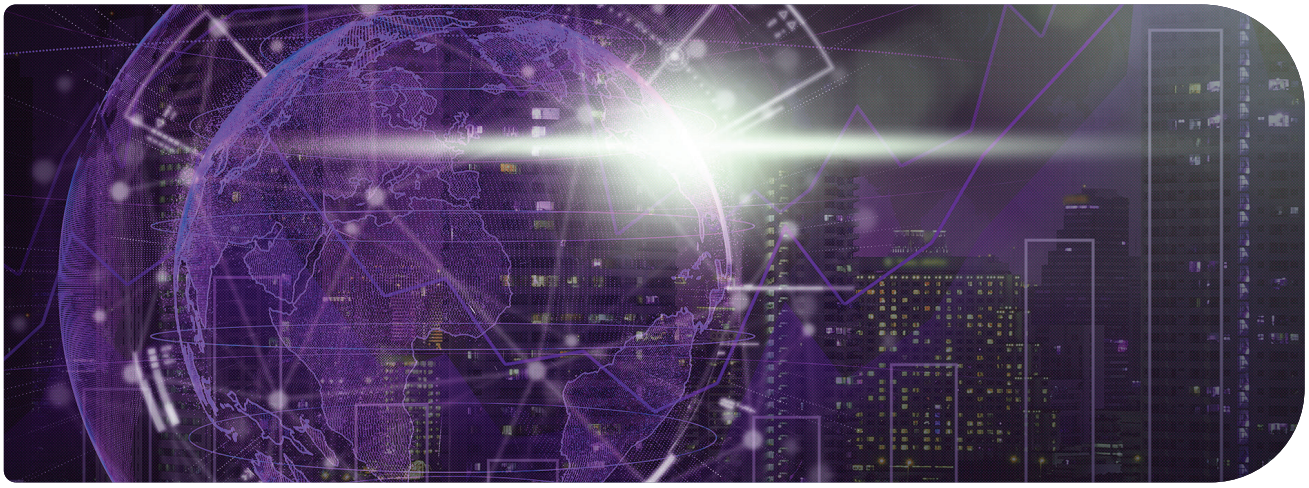
· Currency
A reasonably stable currency is essential to a healthy economy. A nation's money must be a credible store of value in order for its citizens to engage in labour and trade, save money, and spend it. A monetary unit that serves poorly as a store of value destroys all incentive to save or even earn, and reduces the ability to trade.

· Precious Metals
Many economies throughout history have used gold, silver, and other precious metals as currencies because of their ability to store value, their relative ease of transport, and the ease of exchanging them for different denominations. In fact, the United States was on a gold standard, meaning that dollars were redeemable for a specific weight of gold, up until 1971.
The end of the gold standard concept gave the Federal Reserve even more power to influence macro factors such as inflation, unemployment rates, and economic outputs. Afterward, the U.S. implemented a fiat currency, which is a legal tender issued by the government but is not backed by a commodity.

Other Examples of Stores of Values

· Cryptocurrency
Some economists view cryptocurrencies, such as Bitcoin and Ethereum, as a good store of value. Their features – such as scarcity, divisibility, decentralized security network, and as a holder of transfer of value – make it a good store of value.
A store of value is any asset, currency or product that retains its value over a long period of time. In order to be considered a store of value, it has to have a stable value or increase its value over time, but in any case, it doesn't decrease in value.

02 Financial Services: Sizing the Sector in the Global Economy



THE MICRO AND MACRO ECONOMIC WORLD SCENE

Economics is split between analysis of how the overall economy works and how single markets function

Physicists look at the big world of planets, stars, galaxies, and gravity. But they also study the minute world of atoms and the tiny particles that comprise those atoms.

Economists also look at two realms. There is big-picture macroeconomics, which is concerned with how the overall economy works. It studies such things as employment, gross domestic product, and inflation—the stuff of news stories and government policy debates. Little-picture microeconomics is concerned with how supply and demand interact in individual markets for goods and services.

In macroeconomics, the subject is typically a nation—how all markets interact to generate big phenomena that economists call aggregate variables. In the realm of microeconomics, the object of analysis is a single market.

For example, whether price rises in the automobile or oil industries are driven by supply or demand changes. The government is a major object of analysis in macroeconomics—for example, studying the role it plays in contributing to overall economic growth or fighting inflation. Macroeconomics often extends to the international sphere because domestic markets are linked to foreign markets through trade, investment, and capital flows. But microeconomics can have an international component as well. Single markets often are not confined to single countries; the global market for petroleum is an obvious example.

The macro/micro split is institutionalised in economics, from beginning courses in "principles of economics" through to postgraduate studies. Economists commonly consider themselves microeconomists or macroeconomists. The American Economic Association recently introduced several new academic journals. One is called Microeconomics. Another, appropriately, is titled Macroeconomics.

Why the divide?

It was not always this way. In fact, from the late 18th century until the Great Depression of the 1930s, economics was economics—the study of how human societies organise the production, distribution, and consumption of goods and services. The field began with the observations of the earliest economists, such as Adam Smith, the Scottish philosopher popularly credited with being the father of economics—although scholars were making economic observations long before Smith authored The Wealth of Nations in 1776. Smith's notion of an invisible hand that guides someone seeking to maximise his or her own well-being to provide the best overall result for society as a whole is one of the most compelling notions in the social sciences. Smith and other early economic thinkers such as David Hume gave birth to the field at the onset of the Industrial Revolution.

Macroeconomics is more abstruse. It describes relationships among aggregates so big as to be hard to apprehend—such as national income, savings, and the overall price level. The field is conventionally divided into the study of national economic growth in the long run, the analysis of short-run departures from equilibrium, and the formulation of policies to stabilise the national economy—that is, to minimise fluctuations in growth and prices. Those policies can include spending and taxing actions by the government or monetary policy actions by the central bank.

Bridging the micro/macro divide

Like physical scientists, economists develop theory to organise and simplify knowledge about a field and to develop a conceptual framework for adding new knowledge. Science begins with the accretion of informal insights, particularly with observed regular relationships between variables that are so stable they can be codified into "laws." Theory is developed by pinning down those invariant relationships through both experimentation and formal logical deductions—called models.

Since the Keynesian revolution, the economics profession has had essentially two theoretical systems, one to explain the small picture, the other to explain the big picture (micro and macro are the Greek words, respectively, for "small" and "big"). Following the approach of physics, for the past quarter century or so, a number of economists have made sustained efforts to merge microeconomics and macroeconomics.

They have tried to develop microeconomic foundations for macroeconomic models on the grounds that valid economic analysis must begin with the behaviour of the elements of microeconomic analysis: individual households and firms that seek to optimise their conditions. There have also been attempts to use very fast computers to simulate the behaviour of economic aggregates by summing the behaviour of large numbers of households and firms.

It is too early to say anything about the likely outcome of this effort. But within the field of macroeconomics there is continuing progress in improving models, whose deficiencies were exposed by the instabilities that occurred in world markets during the global financial crisis that began in 2008.

How they differ?

Contemporary microeconomic theory evolved steadily without fanfare from the earliest theories of how prices are determined. Macroeconomics, on the other hand, is rooted in empirical observations that existing theory could not explain. How to interpret those anomalies has always been controversial. There are no competing schools of thought in microeconomics—which is unified and has a common core among all economists. The same cannot be said of macroeconomics—where there are, and have been, competing schools of thought about how to explain the behaviour of economic aggregates. Those schools go by such names as New Keynesian or New Classical. But these divisions have been narrowing over the past few decades.

Microeconomics and macroeconomics are not the only distinct subfields in economics. Econometrics, which seeks to apply statistical and mathematical methods to economic analysis, is widely considered the third core area of economics. Without the major advances in econometrics made over the past century or so, much of the sophisticated analysis achieved in microeconomics and macroeconomics would not have been possible.

Macro vs microeconomic policy: is there a winner?

The objectives of macro- and microprudential policies have broadly coincided since the Global Crisis. With the turning of the financial, economic and political cycles, their objectives will conflict more in coming years, leading to difficult turf battles.

Before the Crisis, financial policy was dominated by macroprudential regulations, the implicit assumption being that a successful micro policy was sufficient to maintain the efficient operation of the financial system, just as a successful anti-inflation policy was all that was required from monetary policy.

The limitations of both approaches became very clear during the Crisis and since then, macro has been a major part of financial policy. However, while the ultimate objectives and implementation tools of macro and micro are closely aligned, their intermediate objectives are not, setting the scene for conflict.

The potential for conflict

Both macro and micro serve the same ultimate policy objective of ensuring that the financial system provides the best service to the real economy, but in detail their objectives are quite different. Micro is motivated by consumer and client protection, and aims to encourage confidence in banking services and hence to increase their use and consequently value to society. Macro is focused on systemic risk and the stability of the entire financial system.

A micro regulator might argue that as long as each institution is made to act prudently, the entire financial system is safe so therefore there is no need for macro. A macro regulator might counter by pointing that it is easy to construct models in which this is not true.

In a stress scenario, if prices start falling, prudent financial institutions will have no choice but to sell into a falling market, causing prices to drop more and spreading contagion. The resulting vicious feedback loop is a direct consequence of prudent self-preserving behaviour and amplified by harmonised micro prudential regulations. Similarly, micro regulators would always see margin calls as beneficial, while macro authorities might be concerned with the resulting forced selling and contagion.

Such fallacies of composition suggest that one cannot at all times achieve financial stability by the micro alone.

Top-down and bottom-up

Claudio Borio noted in 2003 that micro is bottom-up, with the focus on individual behaviour aggregated up to the level of the institution. In some circumstances, the legal person that is regulated is the institution and it takes responsibility for the behaviour of its employees; or employees and the institution may both be regulated and share responsibility. In both cases, conduct is regulated and sanctioned. Implemented by lawyers and accountants, micro is essentially retributive.

Macro is different. It is more supportive rather than retributive, being based on support for the financial system as a whole and the need to maintain its healthy operation at times and under circumstances when market forces do not on their own appear capable of achieving this. The institution is conceptually the smallest unit considered and it is interactions between institutions rather than their internal functions that are of most interest. Consequently, it is more influenced by economists.

The banks prefer micro in upturns

In good times, banks love micro regulation because it creates barriers to entry and hence increases profits.

If micro regulation is great for business, macro is bad and to the banks it is just a long list of old-fashioned proscriptions on profitable things they want to do. Perhaps a 1990s bank can't buy a securities business because of the 1933 Glass-Steagall Act, or it can't buy these high-yielding structured AAA credits because of ancient leverage limits.

If macro regulation has not proved its worth in a long while it will be seen as pointless and restrictive, so inconvenient rules will be steadily pared back by a powerful bank lobby.

During good times micro regulation will always come to the fore.
In bad times the roles reverse.

Bad times reveal bad practice and the micro regulator is naturally inclined to retribution –when banks do not meet their obligations, fines and penalties result. The macro regulator, however, is tasked to keep the system running and is now the banks' friend – it will help to supply capital as required and it wishes to forgive and forget transgressions as rapidly as possible so that banks can play their part.

This explains why the regulators always seem to be on the banks' side – in each state of the world, the banks have a friend calling the regulatory shots, whether macro or micro.

Toolkits and turf battles

Quite how separate micro and macro regulation are has of course changed substantially over time. Over the past few decades, most regulatory efforts were on the micro side. For example, the Basel accords have always been much more micro-focused than macro-focused, even though calling them only microprudential is misleading. This changed with the Crisis.

Even when both are actively practised and are located in the same government organisation, macro and micro are likely to be in separate silos, despite the overlap of their toolkits. Micro regulation operates on a clear legal basis with defined rules, investigative powers and penalties. While many of the micro tools are specific to the micro objective, many are also useful and even necessary for macro.

That is one source of conflict, since micro regulators may resent having to share their enforcement tools with macro regulators and the conflict between the two becomes most visible when the macro and micro authorities want to push the levers in opposite directions.

Conflict and cycles

The degree of conflict between macro and micro depends on the state of the financial and economic cycle, as noted by Schoenmaker et al. (2011, 2013). It also depends on the political support cycle and the direction of bank lobbying.

The conflict between the two is lowest when their objectives coincide and both enjoy a high degree of political support, as in the past few years. Both the macro and micro policymakers have wanted to de-risk the financial system, both wanted to increase capital. Their regulatory efforts have enjoyed a level of political support that comes only in the aftermath of the crisis. However, this happy coincidence of the economic, financial and regulatory cycles is already starting to break down.

In times of severe stress or crisis, a micro authority might want to increase margins and collateral to mitigate risk, while a macro authority could be concerned with fire sales, wanting to decrease margins and collateral. However, we do not need times of acute stress for the conflict to emerge. In an economy suffering from low growth, a macro regulator might prioritise the health of the economy and seek a loosening of capital constraints to encourage more risky lending.

If it opted to do so, a macro regulator would receive strong political support.

The European Commission has increasingly sought to improve the investment climate to overcome sluggish economic growth and high unemployment, for example through its capital markets union initiative.

Related is the appeal from the European Commission in September for evidence of "unnecessary regulatory burdens" and "other unintended consequences" of banking and markets laws.

In the words of Jyrki Katainen, vice-president of the commission responsible for jobs and investment, "during the past five years... regulators at European level have concentrated on crisis management. Stability has come back... now we are in the situation where we have to use the European regulatory power to create new markets".

Furthermore, France, Germany and Italy recently intervened directly in macro prudential regulations by undercutting global bank capital standards, relaxing rules on total loss absorbing capacity. The motivation for this is probably macroeconomic, and the banks' ability to make risky loans to small and medium-sized enterprises, but it comes at the expense of more risk and the undermining of the macro authorities.

The micro regulator is always concerned primarily with institutional stability and naturally tends to oppose any such moves.

Conclusion

While the macro and micro objectives have always been present in the regulatory design, their relative importance has waxed and waned according to the changing requirements of economic, financial and political cycles.

Before the Crisis, macro regulation was on the back burner, with only micro actively pursued. During the Crisis, only macro regulation mattered. Since, we have a rare situation in which all three cycles coincide – micro and macro pull in the same direction and this masks the potential for conflict

However, that coincidence has been dependent on the political, economic and financial imperative to clear up the aftermath of the Crisis, and this imperative is starting to weaken. While the macro concerns that resulted remain important, distinctly micro ones are growing while the macro objectives are being undermined by the political leadership.

This presents a difficult challenge for the macro authorities. They can opt to incorporate macroeconomic targets into macroprudential policies, but that risks undermining the credibility of the macro agenda, and hence the erosion of political support. Alternatively, the macro authorities may resist incorporating economic targets, but this also risks losing political support.

Either way, the conflict between macro and micro seems set on deepening.
It will be interesting to see how the macro and micro authorities manage their conflicts as the situation evolves, and the position of the political leadership. Our hope is that whatever the outcome, it will not lead to the undermining of the central bank's execution of monetary policy, as discussed by Chwieroth and Danielsson here on Vox in 2013.

PURCHASING POWER OF THE US DOLLAR

If you're 30 years old, you've already gone through 3 major financial crises, which means you've lost money 3 times just because of inflation and devaluation.

This is the reality no matter where you live, it affects all the worlds' economies, even the strongest ones.

Even the US dollar, one of the strongest coins worldwide, has undergone major fluctuations, all negative, throughout history. We are subject to financial crises which occur more and more often and are increasingly serious. From 1910 until the present day, the purchasing power of the US dollar has constantly dropped, culminating with the crises that happened in 2008. Even now, due to the pandemic, another financial crisis occurred faster than we thought. In fact, in 2020 alone, around 20% of all U.S. dollars in the money supply, $3.4 trillion, were created out of thin air. This is why such crises appear, because the governments print more and more money, an action that sooner or later leads to hyperinflation: accelerated, major-rated inflation that erodes the value of the coin and makes people lose their wealth overnight.

Since the introduction of the fractional monetary system, no one is safe. They add more and more debt to the global debt by creating IOYs, making up a bubble that sooner or later is going to explode. This is why we can't financially protect ourselves because the rich get richer and the poor get poorer.

None of us stands a chance in front of these changes, because the world's economy is in the hands of people who make decisions in our stead while we are asleep. A handful of entities control all the money in the world and we can do nothing about it, just watch how we lose what we've saved so far. Moreover, if you think that saving your whole life for the next generations to ensure a better future for them is what will save you, just look at what happened in the world: thanks to hyperinflation, even major economies such as Germany, USSR, China, France, and the US have been affected because the system is built in such a way that, from a generation to another, money loses its value. It is no coincidence that hyperinflation happens in a cyclic rhythm.

THE ONLY WAY OUT

The only way out is to change your mindset. As Robert Kyosaki said, every person's goal should be to make money work for them, not the other way around. It doesn't matter in which quadrant you find yourself at the moment, employees, self-employed, business owners, you should build yourself an escape plan. And now that is finally available thanks to our process of facilitating access to information. That means you can read, see and hear much faster about good and strong ideas that can and will change the world or have a positive impact on it. Let's say you decide to take this step. The thing is, it is very hard to research and know where and how you can make your money work. There are some options out there, but every single one of them is based on the current markets and all of them are still centralised, regulated to their advantage and they are meant to eat the small fish in the market, things that have been proven both in the past and now.

WHAT ARE YOUR OPTIONS?

Let's take a deeper look.

There are several resources you can access, such as currency trading, stocks, and daily trading.

If you choose one of these, the major benefits are: an easy buy and sell process, hundreds of brokers to choose from, the possibility of choosing daily payments, non-stop availability, the possibility to earn from investing in companies which will increase their value and therefore your outcome will increase.

The downsides of these are the possibility of losing money because of the high volatility, the fact that brokers bet against you, the market is susceptible of influence because of the high volume of transactions, the lack of transparency, the slow processes, few experienced brokers that can be contracted, the market being an emotional roller coaster and especially the fact that the market can be manipulated.

On the other hand, choosing to invest in natural resources brings another set of advantages to the table:

Silver investments represent a store of value, allow you to diversify your portfolio, and offer better protection against inflation. The downside of adding silver to your assets is the lack of liquidity, the fact that it is difficult to manage, and needs special conditions to be deposited. In addition, it has speculative value.
Adding oil to your portfolio comes with high-profit margins, steady dividends, tax advantages and offers diversity to your portfolio but at the same time the prices are volatile, implies high-risk exploration and it is difficult to manage.
All these resources, although available to be exploited and also having the

quality of being valuable, are almost impossible to access for small investors. They are only future ideas and moreover, all the transactions are made through brokers who bid against you. Besides, the markets are manipulated, with a long history of such events: JP Morgan manipulated the silver market between 2008 and 2016 and was proven guilty. The oil market was proven to be manipulated back in 2013 when several companies were conspiring to manipulate spot prices. Another market that has been manipulated was the gold market, through 'pump and dump' schemes. This is a form of fraud where a stock price is artificially inflated for personal gain by distributing positive information that is either false or misleading.

In addition to all the manipulation that can be done on these markets comes the fact that you need special knowledge to understand how the market works and this is why you need a broker to make any transaction. Therefore, you end up running in circles because trying to get out of the system by investing in these markets gets you to the same centralised, easily manipulated system, one that lacks transparency.

CURRENCY TRADING, STOCK TRADING AND DAILY TRADES

›Benefits:

- easy buy
- easy sell hundreds of brokers to choose from daily payments
- non-stop availability
- growth opportunity

INVESTING IN OIL, SILVER AND OTHER TANGIBLE ASSETS

›Benefits:

- high-profit margins
- steady dividends
- tax advantages
- diversification
- a store of value
- portfolio diversification
- better protection against inflation

GOLD

›Benefits:

- evergreen valuable asset
- high liquidity
- portfolio diversification opportunity
- most secure asset of all times

OBSTACLES IN THE TRADITIONAL INVESTMENT FIELD

- high volatility
- counterbids from the brokers
- high malleability because of the significant trades
- lack of transparency
- slow transfers
- few experienced brokers
- emotional roller coaster
- volatile oil prices
- high-risk exploration
- difficult to manage
- liquidity problem
- needs special conditions to be deposited
- speculative value
- needs special conditions to be deposited
- under many regulation and special condition
- speculative value

It's difficult to know the precise size of the global financial services sector. This is a large group of industries related to banking, lending, and the management of wealth and funds. However, there are few comprehensive metrics for the size of the entire sector. The World Bank itself only collects data from 189 countries and estimates the rest. Meanwhile, the definition and scope of industries that fall within the financial services sector are not consistent among data sources.
Furthermore, reporting is not that readily available on a regular basis or compiled on a global scale in specific financial sector terms. Without a doubt, determining what numerical measurement is the best way to represent the size of a sector has been a subject of much debate.

The following are some ways to measure the size of the financial services sector:

- The financial sector involves a large group of industries associated with banking, lending, insurance, investment, and other business activities related to the allocation of wealth and money.

- There are few comprehensive metrics on the global finance sector, and the only way to measure its size is through estimation.

- Financial services are a bedrock for many other industries that rely on loans and credit in order to operate.

- There are several different metrics for estimating the size of the finance sector, such as by Assets under Management (AUM), the market capitalization of financial companies, or the size of the market.

- Although results vary, most estimates place the financial services sector at around 20-25% of the world economy.

A GROWING, SHIFTING SECTOR

The market estimation for 2021 was that the financial services market would likely reach $22.5 trillion, which means a growing rate of 9.9% from the previous year. This was still lower than the initial projections, due to the recession caused by the pandemic. With an expected global GDP of $93 trillion,this means the financial services comprised about 24% of the world's economy for the year.

This represents a significant improvement over the financial sector of 2010, which was then struggling to recover from the Great Recession. The sector is expected to grow and shift to mobile and online banking as Millennials and Generation Z become more economically powerful. This growth has led to an increase in funding for startups and fintech companies looking to compete for a share of that business.

BANKING AND INVESTMENTS

Another way to estimate the size of the financial services sector is by measuring the banking sector. The global banking sector had an estimated market capitalization of 7.3 trillion euros in the first quarter of 2021, equivalent to $8.58 trillion. Global market capitalization, or the combined value of every listed company on every stock exchange in the world, is estimated to be $56 trillion. Using these metrics, the banking sector accounts for 14% of the global economy.

However, this is an incomplete measurement because it only measures banks whose shares are publicly traded. It will not include information on private banks, government-owned banks, or fintech companies.

Another statistic worth assessing is assets under management (AUM). AUM is a figure that captures the total amount of assets managed by an investment company for its clients. In 2020, global AUM reached $103 trillion, according to Boston Consulting Group. With total global wealth estimated at $431 trillion, that means that the banking and investment sector accounts for just under a quarter of the world's assets.

Although it is difficult to obtain specific figures, the financial services sector is a major building block of the world economy. It consists of banks, investment firms, and insurance companies, all of which play a large role in the workings of the market.

There are several different ways to measure the size of the financial services sector in relation to the world economy. While these estimates vary, most put the financial services sector at around a quarter of the world's economy.

The market capitalization of the global banking sector was 7.5 trillion euros in the second quarter of 2021. Market cap is the number of shares in a company multiplied by the price per share. In this case, the sector market cap is the sum of this metric for all major banks.

MARKET CAP AND BANKING

The leading banks worldwide each have a market cap up to hundreds of billions of U.S. dollars. Naturally, the metric can mostly measure publicly traded companies as they are obliged to publish financial reports. The major international banks are already publicly traded, as opposed to smaller financial institutions or fintech companies operating in the banking sector.

03 Types of Investments

Think of the various types of investments as tools that can help you achieve your financial goals. Each broad investment type — from bank products to stocks and bonds — has its own general set of features, risk factors and ways in which they can be used by investors.

Learn more about the various types of investments below:

- Stocks
- Bonds
- Mutual Funds and ETFs
- Bank Products
- Options
- Annuities
- Retirement
- Saving for Education
- Alternative and Complex Products
- Initial Coin Offerings and Cryptocurrencies
- Commodity Futures
- Security Futures
- Insurance
- Liquidity pool
- DeFi
- NFT

›› STOCKS

When you invest in a stock, you become one of the owners of a corporation. Stocks represent ownership shares, also known as equity shares. Whether you make or lose money on a stock depends on the success or failure of the company, which type of stock you own, and what's going on in the stock market overall and other factors.
Stocks and stock mutual funds often can be an important component of a diversified investment portfolio. Learn more about different types of stocks and how to assess whether a given stock is right for you.

Your return on investment, or what you get back in relation to what you put in, depends on the success or failure of that company. If the company does well and makes money from the products or services it sells, you expect to benefit from that success.

There are two main ways to make money with stocks:

a. **Dividends**. When publicly owned companies are profitable, they can choose to distribute some of those earnings to shareholders by paying a dividend. You can either take the dividends in cash or reinvest them to purchase more shares in the company. Many retired investors focus on stocks that generate regular dividend income to replace income they no longer receive from their jobs. Stocks that pay a higher than average dividend are sometimes referred to as "income stocks."

b. **Capital gains**. Stocks are bought and sold constantly throughout each trading day, and their prices change all the time. When a stock price goes higher than what you paid to buy it, you can sell your shares at a profit. These profits are known as capital gains. In contrast, if you sell your stock for a lower price than you paid to buy it, you've incurred a capital loss.

Both dividends and capital gains depend on the fortunes of the company—dividends as a result of the company's earnings and capital gains based on investor demand for the stock. Demand normally reflects the prospects for the company's future performance. Strong demand—the result of many investors wanting to buy a particular stock—tends to result in an increase in the stock's share price. On the other hand, if the company isn't profitable or if investors are selling rather than buying its stock, your shares may be worth less than you paid for them.

The performance of an individual stock is also affected by what's happening in the stock market in general, which is in turn affected by the economy as a whole. For example, if interest rates go up and you think you can make more money with bonds than you can with stock, you might sell off stock and use that money to buy bonds. If many investors feel the same way, the stock market as a whole is likely to drop in value, which in turn may affect the value of the investments you hold. Other factors, such as political uncertainty at home or abroad, energy or weather problems, or soaring corporate profits, also influence market performance.

However—and this is an important element of investing—at a certain point, stock prices will be low enough to attract investors again. If you and others begin to buy, stock prices tend to rise, offering the potential for making a profit. That expectation may breathe new life into the stock market as more people invest.

This cyclical pattern—specifically, the pattern of strength and weakness in the stock market and the majority of stocks that trade in the stock market—recurs continually, though the schedule isn't predictable. Sometimes, the market moves from strength to weakness and back to strength in only a few months. Other times, this movement, which is known as a full market cycle, takes years.

At the same time that the stock market is experiencing ups and downs, the bond market is fluctuating as well. That's why asset allocation, or including different types of investments in your portfolio, is such an important strategy: In many cases, the bond market is up when the stock market is down and vice versa. Your goal as an investor is to be invested in

several categories of investments at the same time, so that some of your money will be in the category that's doing well at any given time.

You can buy two kinds of stock. All publicly traded companies issue common stock. Some companies also issue preferred stock, which exposes you to somewhat less risk of losing money, but also provides less potential for total return. Your total return includes any income you receive from an investment plus any change in its value.

If you hold common stock you're in a position to share in the company's success or feel the lack of it. The share price rises and falls all the time—sometimes by just a few cents and sometimes by several dollars—reflecting investor demand and the state of the markets. There are no price ceilings, so it's possible for shares to double or triple or more over time—though they could also lose value. The issuing company may pay dividends, but it isn't required to do so. If it does, the amount of the dividend isn't guaranteed, and it could be cut or eliminated altogether—though companies may be reluctant to do either if they believe it will send a bad message about the company's financial health.

Holders of preferred stock, on the other hand, are usually guaranteed a dividend payment and their dividends are always paid out before dividends on common stock. So if you're investing mostly for income—in this case, dividends—preferred stock may be attractive. But, unlike common stock dividends, which may increase if the company's profit rises, preferred dividends are fixed. In addition, the price of preferred stock doesn't move as much as common stock prices.

This means that while preferred stock doesn't lose much value even during a downturn in the stock market, it doesn't increase much either, even if the price of the common stock soars. So if you're looking for capital gains, owning preferred stock may limit your potential profit.

Another point of difference between common stock and preferred stock has to do with what happens if the company fails. In that event, there's a priority list for a company's obligations, and obligations to preferred stockholders must be met before those to common stockholders. On the other hand, preferred stockholders are lower on the list of investors to be reimbursed than bondholders are.

Classes of Stock

In addition to the choice of common or preferred stock, certain companies may offer a choice of publicly traded share classes, typically designated by letters of the alphabet—often A and B. For example, a company may offer a separate class of stock for one of its divisions which itself was perhaps a well-known, formerly independent company that has been acquired. In other cases, a company may issue different share classes that trade at different prices and have different dividend policies.

When a company has dual share classes, though, it's more common for one share class to be publicly traded and the other to be non-traded. Non-traded shares are generally reserved for company founders or current management. There are often restrictions on selling these shares, and they tend to have what's known as super voting power. This makes it possible for insiders to own less than half of the total shares of a company but control the outcome of issues that are put to a shareholder vote, such as a decision to sell the company.

Understanding various ways stocks are described

In addition to the distinctions a company might establish for its shares—such as common or preferred—industry experts often group stocks generally into categories, sometimes called subclasses. Common subclasses, explained in greater detail below, focus on the company's size, type, performance during market cycles, and potential for short- and long-term growth.

Each subclass has its own characteristics and is subject to specific external pressures that affect the performance of the stocks within that subclass at any given time. Since each individual stock fits into one or more subclasses, its behaviour is subject to a variety of factors.

Market Capitalization

You'll frequently hear companies referred to as large-cap, mid-cap, and small-cap. These descriptors refer to market capitalization, also known as market cap and sometimes shortened to just capitalization. Market cap is one measure of a company's size. More specifically, it's the dollar value of the company, calculated by multiplying the number of outstanding shares by the current market price.

There are no fixed cutoff points for large-, mid-, or small-cap companies, but you may see a small-cap company valued at less than $2 billion, mid-cap companies between $2 billion and $10 billion, and large-cap companies over $10 billion—or the numbers may be twice those amounts. You might also hear about micro-cap companies, which are even smaller than other small-cap companies.

Larger companies tend to be less vulnerable to the ups and downs of the economy than smaller ones—but even the most venerable company can fail. Larger companies typically have larger financial reserves, and can therefore absorb losses more easily and bounce back more quickly from a bad year. At the same time, smaller companies may have greater potential for fast growth in economic boom times than larger companies. Even so, this generalisation is no guarantee that any particular large-cap company will weather a downturn well, or that any particular small-cap company will or won't thrive.

Industry and Sector

Companies are subdivided by industry or sector. A sector is a large section of the economy, such as industrial companies, utility companies, or financial companies. Industries, which are more numerous, are part of a specific sector. For example, banks are an industry within the financial sector.

Frequently, events in the economy or the business environment can affect an entire industry. For example, it's possible that high gas prices could lower the profits of transportation and delivery companies. A new rule changing the review process for prescription drugs could affect the profitability of all pharmaceutical companies.

Sometimes an entire industry might be in the midst of an exciting period of innovation and expansion, and becomes popular with investors. Other times that same industry could be stagnant and have little investor appeal. Like the stock market as a whole, sectors and industries tend to go through cycles, providing strong performance in some periods and disappointing performance in others.

Part of creating and maintaining a strong stock portfolio is evaluating which sectors and industries you should be invested in at any given time. Having made that decision, you should always evaluate individual companies within a sector or industry you've identified to focus on the ones that seem to be the best investment choices.

Defensive and Cyclical

Stocks can also be subdivided into defensive and cyclical stocks. The difference is in the way their profits, and therefore their stock prices, tend to respond to the relative strength or weakness of the economy as a whole.

Defensive stocks are in industries that offer products and services that people need, regardless of how well the overall economy is doing. For example, most people, even in hard times, will continue filling their medical prescriptions, using electricity, and buying groceries. The continuing demand for these necessities can keep certain industries strong even during a weak economic cycle.

In contrast, some industries, such as travel and luxury goods, are very sensitive to economic ups-and-downs. The stock of companies in these industries, known as cyclicals, may suffer decreased profits and tend to lose market value in times of economic hardship, as people try to cut down on unnecessary expenses. But their share prices can rebound sharply when the economy gains strength, people have more discretionary income to spend, and their profits rise enough to create renewed investor interest.

Growth and Value

A common investment strategy for picking stocks is to focus on either growth or value stocks, or to seek a mixture of the two since their returns tend to follow a cycle of strength and weakness.

Growth stocks, as the name implies, are issued by companies that are expanding, sometimes quite quickly but in other cases over a longer period of time. Typically, these are young companies in fairly new industries that are rapidly expanding.

Growth stocks aren't always new companies, though. They can also be companies that have been around for some time but are poised for expansion, which could be due to any number of things, such as technological advances, a shift in strategy, movement into new markets, acquisitions, and so on.

Because growth companies often receive intense media and investor attention, their stock prices may be higher than their current profits seem to warrant. That's because investors are buying the stock based on potential for future earnings, not on a history of past results. If the stock fulfils expectations, even investors who pay high prices may realise a profit. Since companies may take big risks to expand, however, growth stocks may be very volatile, or subject to rapid price swings.

For example, a company's new products may not be a hit, there may be unforeseen difficulty doing business in new countries, or the company may find itself saddled with major debt in a period of rising interest rates. As always with investing, the greater the potential for an outstanding return, the higher the risk of loss.

When a growth stock investment provides a positive return, it's usually as a result of price improvement—the stock price moves up from where the investor originally bought it—not because of dividends. Indeed, a key feature of most growth stocks is an absence of dividend payments to investors. Instead, company managers tend to plough gains directly back into the company.

Value stocks, in contrast, are solid investments selling at what seem to be low prices given their history and market share. If you buy a value stock, it's because you believe that it's worth more than its current price. You might look for value in older, more established industries, which tend not to get as much press as newer industries. One of the big risks in buying value stocks, also known as undervalued stocks, is that it's possible that investors are avoiding a company and its stock for good reasons, and that the price is a fairer reflection of its value than you think.

On the other hand, if you deliberately buy stocks that are out of fashion and sell stocks that other investors are buying—in other words, you invest against the prevailing opinion—you're considered a contrarian investor.

There can be rewards to this style of investing, since by definition a contrarian investor buys stocks at low prices and sells them at high ones. However, contrarian investing requires considerable experience and a strong tolerance for risk, since it may involve buying the stocks of companies that are in trouble and selling stocks of companies that other investors are favouring. Being a contrarian also takes patience, since the turnaround you expect may take a long time.

Stock Trading vs. Buy and Hold

The goal of most investors generally is to buy low and sell high. This can result in two quite different approaches to equity investing.

One approach is described as "trading." Trading involves following the short-term price fluctuations of different stocks closely and then trying to buy low and sell high. Traders usually decide ahead of time the percentage increase they're looking for before you sell (or decrease before they buy).

While trading has tremendous potential for immediate rewards, it also involves a fair share of risk because a stock may not recover from a downswing within the time frame you'd like—and may in fact drop further in price. In addition, frequent trading can be expensive, since every time you buy and sell, you may pay broker's fees for the transaction. Also, if you sell a stock that you haven't held for a year or more, any profits you make are taxed at the same rate as your regular income, not at your lower tax rate for long-term capital gains.

Be aware that trading should not be confused with "day trading," which is the rapid buying and selling of stock to capitalise on small price changes. Day trading can be extremely risky, especially if you attempt to day trade using borrowed money. Individual investors frequently lose money by trying to use this approach.

A very different investing strategy—called buy-and-hold—involves keeping an investment over an extended period, anticipating that the price will rise over time. While buy-and-hold reduces the money you pay in transaction fees and short-term capital gains taxes, it requires patience and careful decision-making.

As a buy-and-hold investor, you generally choose stocks based on a company's long-term business prospects. Increases in the stock price over years tend to be based less on the volatile nature of the market's changing demands and more on what's known as the company's fundamentals, such as its earnings and sales, the expertise and vision of its management, the fortunes of its industry, and its position in that industry.

›› BONDS

A bond is a loan an investor makes to a corporation, government, federal agency or other organisation in exchange for interest payments over a specified term plus repayment of principal at the bond's maturity date. There are a wide variety of bonds including Treasuries, agency bonds, corporate bonds, municipal bonds and more. Likewise there are many types of bond mutual funds.

When you invest in bonds and bond mutual funds, you face the risk that your investment might lose money, especially if you bought an individual bond and want or need to sell it before it matures. And bond mutual fund prices can fluctuate, just as stock mutual funds do. Risk will also vary depending on the type of bond you own.

Bonds and bond mutual funds often can be an important component of a diversified investment portfolio. Whether you are just starting out or a seasoned investor, we have an array of articles, tools and resources to help learn more about bond investing.
To better understand bonds and bond funds, let's start with some basic concepts.

What's a Bond?

A bond is a loan that an investor makes to a corporation, government, federal agency or other organisation. Consequently, bonds are sometimes referred to as debt securities. Since bond issuers know you aren't going to lend your hard-earned money without compensation, the issuer of the bond (the borrower) enters into a legal agreement to pay you (the bondholder) interest.
The bond issuer also agrees to repay you the original sum loaned at the bond's maturity date, though certain conditions, such as a bond being called, may cause repayment to be made earlier. The vast majority of bonds have a set maturity date—a specific date when the bond must be paid back at its face value, called par value.

Bonds are called fixed-income securities because many pay you interest based on a regular, predetermined interest rate—also called a coupon rate—that is set when the bond is issued. Similarly, the term “bond market” is often used interchangeably with "fixed-income market."

Bond Maturity

A bond's term, or years to maturity, is usually set when it is issued. Bond maturities can range from one day to 100 years, but the majority of bond maturities range from one to 30 years. Bonds are often referred to as being short-, medium- or long-term. Generally, a bond that matures in one to three years is referred to as a short-term bond. Medium- or intermediate-term bonds are generally those that mature in four to 10 years, and long-term bonds are those with maturities greater than 10 years. The borrower fulfils its debt obligation typically when the bond reaches its maturity date, and the final interest payment and the original sum you loaned (the principal) are paid to you.

Callable Bonds

Not all bonds reach maturity, even if you want them to. Callable bonds are common. They allow the issuer to retire a bond before it matures. Call provisions are outlined in the bond's prospectus (or offering statement or circular) and the indenture—both are documents that explain a bond's terms and conditions. While firms are not formally required to document all call provision terms on the customer's confirmation statement, many do so. When you buy municipal securities, firms are required to provide more call information on the customer confirmation than you will see for other types of debt securities.

You usually receive some call protection for a period of the bond's life (for example, the first three years after the bond is issued). This means that the bond cannot be called before a specified date.

After that, the bond's issuer can redeem that bond on the predetermined call date, or a bond may be continuously callable, meaning the issuer may redeem the bond at the specified price at any time during the call period.

Before you buy a bond, always check to see if the bond has a call provision, and consider how that might impact your investment strategy.

Bond Coupons

A bond's coupon is the annual interest rate paid on the issuer's borrowed money, generally paid out semiannually. The coupon is always tied to a bond's face or par value, and is quoted as a percentage of par. For instance, a bond with a par value of $1,000 and an annual interest rate of 4.5 percent has a coupon rate of 4.5 percent ($45).

Many bond investors rely on a bond's coupon as a source of income, spending the simple interest they receive.

You can also reinvest the interest, letting your interest gain interest. If the interest rate at which you reinvest your coupons is higher or lower, your total return will be more or less. Also be aware that taxes can reduce your total return.

Accrued Interest

Accrued interest is the interest that adds up (accrues) each day between coupon payments. If you sell a bond before it matures or buy a bond in the secondary market, you most likely will catch the bond between coupon payment dates. If you're selling, you're entitled to the price of the bond, plus the accrued interest that the bond has earned up to the sale date. The buyer compensates you for this portion of the coupon interest, which is generally handled by adding the amount to the contract price of the bond.

Use our Accrued Interest Calculator to figure out a bond's accrued interest.

Bond Prices

Bonds are generally issued in multiples of $1,000, also known as a bond's face or par value. But a bond's price is subject to market forces and often fluctuates above or below par. If you sell a bond before it matures, you may not receive the full principal amount of the bond and will not receive any remaining interest payments. This is because a bond's price is not based on the par value of the bond. Instead, the bond's price is established in the secondary market and fluctuates. As a result, the price may be more or less than the amount of principal and the remaining interest the issuer would be required to pay you if you held the bond to maturity.

The price of a bond can be above or below its par value for many reasons, including:

- interest rate adjustments to the bond;
- whether a bond credit rating has changed;
- supply and demand;
- a change in the creditworthiness of a bond's issuer;
- whether the bond has been called or is likely to be (or not to be) called; or,
- a change in the prevailing market interest rates.

If a bond trades above par, it is said to trade at a premium. If a bond trades below par, it is said to trade at a discount. For example, if the bond you desire to purchase has a fixed interest rate of 8 percent, and similar-quality new bonds available for sale have a fixed interest rate of 5 percent, you will likely pay more than the par amount of the bond that you intend to purchase, because you will receive more interest income than the current interest rate (5 percent) being attached to similar bonds.

›› MUTUAL FUNDS AND ETFS

Investment funds pool the money of many investors and invest according to a specific strategy. Funds come in various types, each with differing features. Generally, publicly offered funds — such as mutual funds, exchange-traded funds, closed-end funds and unit investment trusts — must be registered with the Securities and Exchange Commission (SEC) as investment companies. Private investment funds (often called hedge funds) are often exempt from registration.

Funds can offer diversification and professional management — and they can feature a wide variety of investment strategies and styles. As with any security, investing in a fund involves risk, including the possibility that you may lose money. And how a fund performed in the past is not an indication of how it will perform in the future.

Some funds, such as hedge funds, do not register their shares with the SEC. This means they are not subject to the same regulatory standards that apply to mutual funds and other funds registered with the SEC.

Mutual funds are a popular way to invest in securities. Because mutual funds can offer built-in diversification and professional management, they offer certain advantages over purchasing individual stocks and bonds. But, like investing in any security, investing in a mutual fund involves certain risks, including the possibility that you may lose money.

Technically known as an "open-end company," a mutual fund is an investment company that pools money from many investors and invests it based on specific investment goals. The mutual fund raises money by selling its own shares to investors. The money is used to purchase a portfolio of stocks, bonds, short-term money-market instruments, other securities or assets, or some combination of these investments. Each share represents an ownership slice of the fund and gives the investor a proportional right, based on the number of shares he or she owns, to income and capital gains that the fund generates from its investments.

The particular investments a fund makes are determined by its objectives and, in the case of an actively managed fund, by the investment style and skill of the fund's professional manager or managers. The holdings of the

mutual fund are known as its underlying investments, and the performance of those investments, minus fund fees, determine the fund's investment return.
You can find all of the details about a mutual fund — including its investment strategy, risk profile, performance history, management, and fees — in a document called the prospectus. You should always read the prospectus before investing in a fund.

Mutual funds are equity investments, as individual stocks are. When you buy shares of a fund you become a part owner of the fund. This is true of bond funds as well as stock funds, which means there is an important distinction between owning an individual bond and owning a fund that owns the bond. When you buy a bond, you are promised a specific rate of interest and return of your principal. That's not the case with a bond fund, which owns a number of bonds with different rates and maturities. What your equity ownership of the fund provides is the right to a share of what the fund collects in interest, realises in capital gains, and receives back if it holds a bond to maturity.

If you own shares in a mutual fund you share in its profits. For example, when the fund's underlying stocks or bonds pay income from dividends or interest, the fund pays those profits, after expenses, to its shareholders in payments known as income distributions. Also, when the fund has capital gains from selling investments in its portfolio at a profit, it passes on those after-expense profits to shareholders as capital gains distributions. You generally have the option of receiving these distributions in cash or having them automatically reinvested in the fund to increase the number of shares you own.

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Of course, you have to pay taxes on the fund's income distributions, and usually on its capital gains, if you own the fund in a taxable account. When you invest in a mutual fund you may have short-term capital gains, which are taxed at the same rate as your ordinary income — something you may try to avoid when you sell your individual securities. You may also owe capital gains taxes if the fund sells some investments for more than it paid to buy them, even if the overall return on the fund is down for the year or if you became an investor of the fund after the fund bought those investments in question.

However, if you own the mutual fund in a tax-deferred or tax-free account, such as an individual retirement account, no tax is due on any of these distributions when you receive them. But you will owe tax at your regular rate on all withdrawals from a tax-deferred account.

You may also make money from your fund shares by selling them back to the fund, or redeeming them, if the underlying investments in the fund have increased in value since the time you purchased shares in the funds. In that case, your profit will be the increase in the fund's per-share value, also known as its net asset value or NAV. Here, too, taxes are due the year you realise gains in a taxable account, but not in a tax-deferred or tax-free account. Capital gains for mutual funds are calculated somewhat differently than gains for individual investments, and the fund will let you know each year your taxable share of the fund's gains.

One of key distinguishing features of a mutual fund, or open-end fund, is that investors can buy and sell shares at any time. Funds create new shares to meet demand for increased sales and buy back shares from investors who want to sell. Sometimes, open-end funds get so large that they are closed to new investors. Even if an open-end fund is closed, however, it still remains an open-end fund since existing shareholders can continue to buy and sell fund shares.

Open-end funds calculate the value of one share, known as the net asset value (NAV), only once a day, when the investment markets close. All purchase and sales for the day are recorded at that NAV. To figure its NAV, a fund adds up the total value of its investment holdings, subtracts the fund's fees and expenses, and divides that amount by the number of fund shares that investors are currently holding.

NAV isn't necessarily a measure of a fund's success, as stock prices are, however. Since open-end funds can issue new shares and buy back old ones all the time, the number of shares and the dollars invested in the fund are constantly changing. That's why in comparing two funds it makes more sense to look at their total return over time rather than to compare their NAVs.

Closed-end funds differ from open-end funds because they raise money only once in a single offering, much the way a stock issue raises money for the company only once, at its initial public offering, or IPO. After the shares are sold, the closed-end fund uses the money to buy a portfolio of underlying investments, and any further growth in the size of the fund depends on the return on its investments, not new investment dollars. The fund is then listed on an exchange, the way an individual stock is, and shares trade throughout the day.

You buy or sell shares of a closed-end fund by placing the order with your stockbroker. The price for closed-end funds rises and falls in response to investor demand, and may be higher or lower than its NAV, or the actual per-share value of the fund's underlying investments.

›› BANK PRODUCTS

Banks and credit unions can provide a safe and convenient way to accumulate savings—and some banks offer services that can help you manage your money.

Deposits at banks and most credit unions are federally insured up to a limit set by Congress. And transaction (or checking) accounts and deposit accounts offer liquidity, making it easy for you to get to your funds for any reason—from day-to-day expenses to a down payment or money for unexpected emergencies. In addition to being insured by the FDIC, checking accounts let you transfer money by check or electronic payment to a person or organisation that you designate as payee.

But remember, the interest you earn from bank products—including certificates of deposit (CDs)—tends to be lower than potential returns from other investments.

Savings Accounts

Bank savings accounts have traditionally been one of the simplest and most convenient ways to save. These accounts typically have the lowest minimum deposit requirements and the fewest withdrawal restrictions. But they often pay the lowest interest rates of any of the savings alternatives. However, when banks are competing for your deposits, they may offer substantially higher interest or other benefits for opening a savings account.

Traditional savings accounts used to be called passbook savings accounts, since tellers would record your deposits and add the interest you'd earned in a small booklet called your passbook. These days, electronic records make passbooks unnecessary. But some banks still offer old-fashioned passbook accounts, especially for children's savings accounts.

Your Savings Account Interest Payments

Most savings accounts pay compound interest, which means that your earnings are added to the balance to create a larger base on which future interest is paid. The bank will tell you whether the interest compounds daily, monthly, or on some other schedule, and when the interest is credited to your account. The more frequently it compounds, the faster your earnings will accumulate—though, with small balances, the increases won't be very dramatic.

You generally begin to earn interest as soon as the money goes into your account, and that interest continues to accrue until you withdraw.

The bank will also tell you the basic interest rate and the annual percentage yield (APY). The APY is larger than the basic, or nominal, rate since it takes into account the impact of compounding. Banks often advertise the APY since it more accurately reflects the amount of interest the account will actually pay, and it makes the savings account a more attractive place to park your money.

Online banks may offer higher interest rates than more traditional brick-and-mortar banks. That's because online banks tend to have lower overhead, and can pass their reduced costs onto consumers in the form of increased earnings rates. Before deciding on a savings account, it pays to compare interest rates, along with other features, such as convenience of making deposits and withdrawals. Even a small difference in the rate can result in a substantial difference in interest over time, depending upon the amount you put into the account.

Other Savings Account Features

With a basic savings account, you can make as many deposits as you like, whenever you like. And you can usually withdraw as much as you like when you need the money. However, some banks may require minimum opening balances for basic savings accounts, and some banks charge fees if your balance falls below that minimum. Other banks don't have minimum balance requirements, so if your savings balance tends to be low, you may want to consider these fees in choosing a bank account.

You can also ask if the bank offers low-cost savings accounts. Many banks offer more flexible alternatives for children, college students, and senior citizens, and for people whose income falls below certain limits. But the way these accounts work vary from bank to bank.

One thing you can't do with a basic savings account is transfer money to another person or institution, so you can't pay bills from your savings account. But you can generally transfer funds from your savings to your checking account electronically, or withdraw funds from one of your savings accounts and deposit them in another. You should be aware of Federal Reserve Regulation D, though, which limits you to six transfers from your savings account in any four-week period, whether these transfers are made electronically, automatically, or by phone.

Emergency Funds

It's a good idea to have a separate savings account to serve as your emergency fund. Most experts agree that it's important to set aside enough money to cover your living expenses for three to six months in an account you use exclusively for this purpose. This money would come in handy, for example, if you were to stop earning income temporarily, or if you were faced with unexpected events, such as big medical bills, or any other expense that could arise without warning. Without savings, you might need to rely on credit cards and other borrowing to pay for emergencies, which could result in serious debt.

Money Market Accounts and Money Market Mutual Funds

Money market accounts are similar to savings accounts, but may pay higher interest rates. However, they tend to have higher balance requirements than savings accounts, and different interest rates may apply to different account balances. For example, there may be one rate for balances below $10,000, a higher rate for balances between $10,000 and $25,000, and an even higher rate for $25,000 and above. In addition, you may need a larger deposit to open a money market account.

Unlike traditional savings accounts, money market accounts let you write a limited number of checks each month, in essence combining features of savings and checking accounts

The ceiling is usually three checks—another of the restrictions imposed by Federal Reserve Regulation D. If you exceed the limit, the bank won't process any new transactions until the next period. However, you can make all the withdrawals you want by visiting a bank branch office in person, and you can deposit that money into your checking account without penalty.
You may want to use a money market account for a portion of your emergency fund, or to park money you intend to invest until you've accumulated enough to make a particular purchase.

Money market mutual funds are similar to money market accounts in some ways. They typically pay interest at about the same rate and many offer check-writing privileges. One advantage is that there's usually no limit on the number of checks you can write each month. However, any check you write against the account may have to be for at least the required minimum, such as $500. One drawback is that money market funds, unlike money market accounts, are not FDIC insured, although some offer their own insurance. While fund companies try to keep their money market share price stable at $1 a share, there is the possibility you could lose some of your principal.

›› OPTIONS

Options are contracts that give the purchaser the right, but not the obligation, to buy or sell a security, such as a stock or exchange-traded fund, at a fixed price within a specific period of time.
Options can help investors manage risk. But buying and selling options also involves risk, and it is possible to lose money. It pays to learn about different types of options, trading strategies and the risks involved.

Investor Insights: Options Spotlight

To the uninitiated, the options market can seem to have its own language, with a number of unfamiliar terms. This article lays out some basic terms to help you become conversant in the language of options.

Learn more about options assignments, an important concept that involves the seller's obligation to fulfil the terms of an option contract by either selling or buying the underlying security at the exercise price. This obligation is triggered when the buyer of an option contract exercises their right to buy or sell the underlying security.

Binary Options

Trading binary options can be an extremely risky proposition. Unlike other types of options contracts, binary options are all-or-nothing propositions. Trading binary options is made even riskier by fraudulent schemes, many of which originate outside the United States.

›› ANNUITIES

An annuity is a contract between you and an insurance company in which the company promises to make periodic payments to you, starting immediately or at some future time. You buy an annuity either with a single payment or a series of payments called premiums.

Some annuity contracts provide a way to save for retirement. Others can turn your savings into a stream of retirement income. Still others do both. If you use an annuity as a savings vehicle and the insurance company delays your pay-out to the future, you have a deferred annuity. If you use the annuity to create a source of retirement income and your payments start right away, you have an immediate annuity.

The two most common types of annuities are fixed and variable. There is also a hybrid called an indexed annuity, also referred to as an equity-indexed annuity or a fixed-index annuity. Variable annuities are securities and under FINRA's jurisdiction.

Annuities are often products investors consider when they plan for retirement—so it pays to understand them. They also are often marketed as tax-deferred savings products.

Annuities come with a variety of fees and expenses, such as surrender charges, mortality and expense risk charges and administrative fees. Annuities also can have high commissions, reaching seven percent or more.

›› RETIREMENT

Saving for retirement, and managing income once you retire, are two important aspects of personal financial management. When it comes to saving, tax-advantaged options such as a 401(k) or IRA can be smart choices. In addition to potential tax benefits, there is an opportunity for your savings to compound over time. FINRA's Smart 401(k) resource provides valuable information about how 401(k) plans work, whether you're just getting started or already retired.

Once you retire, the way you manage your income can mean the difference between living comfortably in retirement and running short of money down the road. Whether you are in retirement or still saving for it, there are actions you can take now to manage retirement income.

Federal regulations permit trading in futures contracts on single stocks (also known as single stock futures or SSFs) and narrow-based security indices (see glossary below). This article describes what security futures are, how they differ from stock options, some of the risks they can pose, and how they are regulated.

›› INITIAL COIN OFFERINGS AND CRYPTOCURRENCIES

Digital assets like cryptocurrencies and ICOs continue to evolve and spark interest from Main Street investors. With billions of dollars raised in ICO financings and over a thousand different cryptocurrencies currently available, these rapidly changing markets are tempting for investors. It is also difficult for most individual investors to make sense of these complex investment products and to determine the risk levels associated with them.

Cryptocurrencies

A cryptocurrency is a digital representation of a stored value secured through cryptography. Although Bitcoin might be one of the most widely known cryptocurrencies today, there are many others. The markets for cryptocurrencies remain highly volatile and risky.

It's not just bitcoin. There are now hundreds of cryptocurrencies, which are a type of digital currency, on the market. They've been publicized as a fast and inexpensive way to pay online, but many are now also being marketed as investment opportunities.

But before you decide to purchase cryptocurrency as an investment, here are a few things to know:

- Cryptocurrencies aren't backed by a government or central bank. Unlike most traditional currencies, such as the dollar or yen, the value of a cryptocurrency is not tied to promises by a government or a central bank.

- If you store your cryptocurrency online, you don't have the same protections as a bank account. Holdings in online "wallets" are not insured by the government like U.S. bank deposits are.

- A cryptocurrency's value can change constantly and dramatically. An investment that may be worth thousands of dollars on Tuesday could be worth only hundreds on Wednesday. If the value goes down, there's no guarantee that it will rise again.

- Nothing about cryptocurrencies makes them a foolproof investment. Just like with any investment opportunity, there are no guarantees.

- No one can guarantee you'll make money off your investment. Anyone who promises you a guaranteed return or profit is likely scamming you. Just because the cryptocurrency is well-known or has celebrities endorsing it doesn't mean it's a good investment.

• Not all cryptocurrencies or the companies behind them are the same. Before you decide to invest in a cryptocurrency, look into the claims the company is making. Do an internet search with the name of the company and the cryptocurrency with words like review, scam, or complaint. Look through several pages of search results.

›› SAVINGS FOR EDUCATION

Every parent wants what is best for their child. This is why many people offer access to college education as a gift for their kid when they graduate. Still, this means many years of savings.

The benefits of a college education are many, but one of the biggest benefits is closing the earnings gap. According to the Chronicle of Higher Education, a college education adds an average of $32,000 to the annual salary, which adds up to $1.4 million over a lifetime.

College is a good investment that offers proven returns, but the costs are still high and getting higher. A College Board survey revealed that for the 2017-18 academic year, a moderate college budget is $25,290 for the year at a state public college and $50,900 for a private university.

The earlier you start saving for your children's college education, the better. Considering all these, for most people the best choice is a 529 plan or education IRA.

A 529 plan is a tax-advantaged savings plan sponsored by state agencies, universities, and other institutions. It has specific tax advantages, depending on your state and situation, and if you use the money for qualified educational uses such as tuition, it is not taxable by the federal government.

There are various types of 529 plans, but the most common are education savings plans, which work like Roth IRAs and save after-tax dollars. An educational savings account (ESA) is similar, but allows you to choose where you invest.

An education IRA works in much the same way, allowing parents and guardians to set money aside that can be withdrawn tax-free for educational purposes. There are also prepaid tuition plans, which are typically set aside for state colleges but can be converted to funds for private institutions.

›› ALTERNATIVE AND COMPLEX PRODUCTS

Investment products abound that offer alternatives to conventional stock and bond investments. They are sometimes referred to as structured products or non-conventional investments and tend to be both more complex—and riskier—than traditional investments, and often tempt investors with special features and higher returns than offered by basic investments.

Some examples of complex products include notes with principal protection and high-yield bonds that have lower credit ratings and higher risk of default, but offer more attractive rates of return. Complex products may use futures and options, as well as complicated trading strategies, to achieve investment objectives.

Although these products may have attractive qualities, it is crucial to understand them before investing, otherwise they prove to be very risky.

›› COMMODITY FUTURES

Commodity futures contracts are agreements to buy or sell a specific quantity of a commodity at a specified price on a particular date in the future. Commodities include metals, oil, grains and animal products, as well as financial instruments and currencies.

With limited exceptions, trading in futures contracts must be executed on the floor of a commodity exchange.

The Commodity Futures Trading Commission (CFTC) is the federal government agency that regulates the commodity futures, commodity options, and swaps trading markets. Anyone who trades futures with the public or gives advice about futures trading must be registered with the National Futures Association (NFA), the independent regulator for anyone who trades futures with the public.

Before you invest in commodity futures, check to make sure the individual and firm are registered and whether they are the subject of any disciplinary actions. Use the NFA's Background Affiliation Status Information Centre (BASIC).

- *Commodity Futures Trading Commission*

CFTC is the federal regulator of commodity futures. Its website provides alerts, education and tools related to commodity futures.

- *National Futures Association*

NFA is the non-governmental regulator for anyone who trades futures with the public. Its website offers numerous educational resources for investors, as well as information on how to file a complaint and check out a salesperson or firm.

• *Securities and Exchange Commission*
Get an overview of commodity futures from the federal securities regulator.

›› SECURITY FUTURES

Security futures involve a high degree of risk and are not suitable for all investors. As with any investment, if you don't understand it, you shouldn't buy it.

With security futures, you may lose a substantial amount of money in a very short period of time. The amount you may lose is potentially unlimited and can exceed the amount you originally deposit with your broker.

This is because trading in security futures typically involves a high degree of leverage, with a relatively small amount of money controlling assets having a much greater value. Investors who are uncomfortable with this level of risk should not trade security futures.

There are no security futures contracts currently listed for trading on U.S. exchanges. Before trading security futures, please read the Security Futures Risk Disclosure Statement.

Security Futures Basics

What's a security futures contract?
A security futures contract is a legally binding agreement between two parties to buy or sell a specific quantity of shares of a security (i.e., common stock or an exchange-traded fund) or a narrow-based security index at a specified price, on a specified date in the future (known as the settlement or expiration date).

If you buy a futures contract, you are entering into a contract to buy the underlying security and are said to be "long" the contract.

Conversely, if you sell a futures contract, you are entering into a contract to sell the underlying security and are considered "short" the contract. The price at which the contract trades (or the “contract price”) is determined by relative buying and selling interest on a regulated U.S. exchange.

Security Futures Contract Specifications

Contract size—Each security futures contract has a set size. The size of a security futures contract is determined by the regulated exchange on which the contract trades. For example, a security futures contract for a single stock may be based on 100 shares of the underlying stock.

For narrow-based security indices, the value of the contract is the price of the component securities times the multiplier set by the exchange as part of the contract terms.

Contract month—The month when the contract expires. There will be several different contract months available for trading at any one time, and the number of contract months may vary from exchange to exchange.

Contract expiration, last trading day—The expiration of a security futures contract is established by the exchange on which the contract is listed.

On the expiration day, the contract terminates. Typically, the last trading day of a security futures contract will be the third Friday of the expiring contract month, and the expiration day will be the following Saturday.

Manner of settlement—Security futures may be settled by physical delivery of the underlying security or cash settlement. The terms of the contract dictate whether it is settled by cash or physical delivery.

Offsetting Transactions

Prior to expiration of the contract, investors realise their current gains or losses by executing an offsetting sale or purchase in the same contract (i.e., an equal and opposite transaction to the one that opened the position).
Example: Investor A is a long one September ABC Corp. futures contract. To close out or offset the long position, Investor A would sell an identical September ABC Corp. contract.

Investor B is short one October XYZ Corp. futures contract. To close out or offset the short position, Investor B would buy an identical October XYZ Corp. contract.

Contract Expiration and Delivery

Any futures contract that hasn't been liquidated by an offsetting transaction before the contract's expiration date will be settled at that day's settlement price (see glossary below). The terms of the contract specify whether a contract will be settled by physical delivery—receiving or giving up the actual shares of stock—or by cash settlement. Where physical delivery is required, a holder of a short position must deliver the underlying security. Conversely, a holder of a long position must take delivery of the underlying shares.
Where cash settlement is required, the underlying security is not delivered. Rather, any security futures contracts that are open are settled through a final cash payment based on the settlement price. Once this payment is made, neither party has any further obligations on the contract.

Margin and Leverage

When a brokerage firm lends you part of the funds needed to purchase a security, such as common stock, the term "margin" refers to the amount of cash, or down payment, the customer is required to deposit. By contrast, you should be aware that a security futures contract is an obligation and is not an asset. The contract has no value as collateral for a loan.

When you enter into a security futures contract, you are required to pay a margin deposit or performance bond. These are good faith deposits to ensure your performance of obligations under the contract rather than down payments for the underlying securities.

For a relatively small amount of money (the margin requirement), a futures contract worth several times as much can be bought or sold. The smaller the margin requirement in relation to the underlying value of the futures contract, the greater the leverage. Because of this leverage, small changes in the price of the contract can result in large gains and losses in a short period of time.

Margin requirements for security futures contracts would be set by the exchange on which the contract is traded, subject to certain minimum standards set by law. The basic margin requirement is 15 percent of the current value of the security futures contract, although some strategies may have lower margin requirements. It is important to understand that individual brokerage firms can, and in many cases do, require margin that is higher than the exchange requirements. Additionally, margin requirements may vary from brokerage firm to brokerage firm.

Importantly, a brokerage firm can increase its “house” margin requirements at any time without providing advance notice, and such increases could result in a margin call. You should thoroughly read and understand the customer agreement with your brokerage firm before entering into any transactions in security futures contracts.

Example: Assuming a security futures contract is for 100 shares of stock, if a security futures contract is established at a contract price of $50, the contract has a nominal value of $5,000 (see the definition of "nominal value" below in glossary). Currently, federal regulatory standards prescribe that margin requirements may be as low as 15 percent, which would require a margin deposit of $750.

Assume the contract price rises from $50 to $53 (a $300 increase in the nominal value). This represents a $300 profit to the buyer of the futures contract, and a 40 percent return on the $750 deposited as margin.

The reverse would be true if the contract price decreased from $50 to $47. This represents a $300 loss to the buyer, or 40 percent of the $750 deposited as margin. Thus, leverage can either benefit or harm an investor.
Note that a six percent decrease in the value of the contract resulted in a loss of 40 percent of the margin deposited. A 15 percent decrease in the contract price ($50 to $42.50) would mean a drop in the nominal value of the contract from $5,000 to $4,250, thereby wiping out 100 percent of the margin deposited on the security futures contract.

Adverse price movements that reduce the reserve below a specified level will therefore result in a demand from your broker that you promptly deposit additional margin funds to your account. Returning to our earlier example, the six percent decrease in the value of the contract that resulted in the loss of 40 percent of the margin deposit would reduce the margin deposit to $450. Therefore, the account holder would need to deposit $187.50 in the margin account to raise the margin level back up to 15 percent of the current value of the contract ($4,250).

Because of the always-present possibility of margin calls, security futures contracts are not appropriate if you cannot come up with the additional funds on short notice to meet margin calls on open futures positions. If you fail to meet a margin call, your firm may close out your security futures position or sell assets in any of your accounts at the firm to cover your margin deficiency. If your position is liquidated at a loss, you will be liable for the loss. Thus, you can lose substantially more than your original margin deposit.

Gains and Losses

Unlike stocks, gains and losses in security futures contracts are credited or debited to your account every day, based on the settlement price of the contracts at the close of that day's trading. If the daily settlement price of a particular security futures contract rises, the buyer has a gain and the seller a loss. If due to losses your account falls below maintenance margin requirements, you may be required to place additional funds in your account to cover the margin deficiency.

›› INSURANCE

Life insurance products are often a part of an overall financial plan. They come in various forms, including term life, whole life and universal life policies. There also are variations on these—variable life insurance and variable universal life insurance—which are considered securities and must be registered with the Securities and Exchange Commission (SEC). FINRA has jurisdiction over the investment professionals and firms that sell variable life and variable universal life products.

Insurance products often are developed to meet specific objectives. For example, long-term care insurance is designed to help manage health care expenses as you age. As with other financial products, insurance products can be complex and come with fees, so it pays to do your homework before you buy.

Here are some of the most common types of life insurance:

•Term Life Insurance. Term life provides coverage for a specified and limited period, known as the term. Premiums for most term policies tend to go up as you age or at the end of each renewal period. After the term ends, so does the policy and its coverage if it's not renewed.

- Whole Life Insurance. Whole life or ordinary life insurance is a type of permanent life insurance. It provides coverage for the life of the insured and can build cash value, which is a savings feature. Premium payments typically remain the same for the life of the insured.

- Universal Life Insurance. Universal life provides coverage for the life of the insured and also offers flexible premium payments and insurance coverage. The cost of your insurance protection and in some cases other costs are deducted from the cash or policy account value.

- Variable Life Insurance. Variable life is a type of security that offers fixed premiums and a minimum death benefit. Unlike whole life insurance, its cash value is invested in a portfolio of securities. As the policyholder, you can choose the mix of investments from those the policy offers. However, the policy's investment return is not guaranteed and the cash value will fluctuate.

- Variable Universal Life Insurance. This type of security combines features of universal life insurance and variable life insurance. It offers flexibility in premium payments and insurance coverage, as well as an investment account.

Another type of insurance is long-term care insurance, which tends to cover what Medicare and most conventional health insurance policies don't: long-term custodial care expenses. It's a risk-management product to help cushion the financial blow of prolonged and expensive elder care or custodial care.

›› LIQUIDITY POOL

A liquidity pool is a collection of funds locked in a smart contract. Liquidity pools are used to facilitate decentralized trading, lending, and many more functions we'll explore later.

Liquidity pools are the backbone of many decentralized exchanges (DEX), such as Uniswap. Users called liquidity providers (LP) add an equal value of two tokens in a pool to create a market. In exchange for providing their funds, they earn trading fees from the trades that happen in their pool, proportional to their share of the total liquidity.
As anyone can be a liquidity provider, AMMs have made market making more accessible.

One of the first protocols to use liquidity pools was Bancor, but the concept gained more attention with the popularisation of Uniswap. Some other popular exchanges that use liquidity pools on Ethereum are SushiSwap, Curve, and Balancer. Liquidity pools in these venues contain ERC-20 tokens. Similar equivalents on Binance Smart Chain (BSC) are PancakeSwap, BakerySwap, and BurgerSwap, where the pools contain BEP-20 tokens.

How do liquidity pools work?

Automated market makers (AMM) have changed this game. They are a significant innovation that allows for on-chain trading without the need for an order book. As no direct counterparty is needed to execute trades, traders can get in and out of positions on token pairs that likely would be highly illiquid on order book exchanges.

You could think of an order book exchange as peer-to-peer, where buyers and sellers are connected by the order book. For example, trading on Binance DEX is peer-to-peer since trades happen directly between user wallets.

Trading using an AMM is different. You could think of trading on an AMM as peer-to-contract.

As we've mentioned, a liquidity pool is a bunch of funds deposited into a smart contract by liquidity providers. When you're executing a trade on an AMM, you don't have a counterparty in the traditional sense. Instead, you're executing the trade against the liquidity in the liquidity pool. For the buyer to buy, there doesn't need to be a seller at that particular moment, only sufficient liquidity in the pool.

When you're buying the latest food coin on Uniswap, there isn't a seller on the other side in the traditional sense. Instead, your activity is managed by the algorithm that governs what happens in the pool. In addition, pricing is also determined by this algorithm based on the trades that happen in the pool. If you'd like to get a deeper dive into how this works, read our AMM article.

Of course, the liquidity has to come from somewhere, and anyone can be a liquidity provider, so they could be viewed as your counterparty in some sense. But, it's not the same as in the case of the order book model, as you're interacting with the contract that governs the pool.

What are liquidity pools used for?

So far, we've mostly discussed AMMs, which have been the most popular use of liquidity pools. However, as we've said, pooling liquidity is a profoundly simple concept, so it can be used in a number of different ways.

One of these is yield farming or liquidity mining. Liquidity pools are the basis of automated yield-generating platforms like yearn, where users add their funds to pools that are then used to generate yield.

Distributing new tokens in the hands of the right people is a very difficult problem for crypto projects. Liquidity mining has been one of the more successful approaches. Basically, the tokens are distributed algorithmically to users who put their tokens into a liquidity pool. Then, the newly minted tokens are distributed proportionally to each user's share of the pool.

Bear in mind; these can even be tokens from other liquidity pools called pool tokens. For example, if you're providing liquidity to Uniswap or lending funds to Compound, you'll get tokens that represent your share in the pool. You may be able to deposit those tokens into another pool and earn a return. These chains can become quite complicated, as protocols integrate other protocols' pool tokens into their products, and so on.

We could also think about governance as a use case. In some cases, there's a very high threshold of token votes needed to be able to put forward a formal governance proposal. If the funds are pooled together instead, participants can rally behind a common cause they deem important for the protocol.

Another emerging DeFi sector is insurance against smart contract risk. Many of its implementations are also powered by liquidity pools.

Another, even more cutting-edge use of liquidity pools is for tranching. It's a concept borrowed from traditional finance that involves dividing up financial products based on their risks and returns. As you'd expect, these products allow LPs to select customised risk and return profiles.

Minting synthetic assets on the blockchain also relies on liquidity pools. Add some collateral to a liquidity pool, connect it to a trusted oracle, and you've got yourself a synthetic token that's pegged to whatever asset you'd like. Alright, in reality, it's a more complicated problem than that, but the basic idea is this simple.

What else can we think of? There are probably many more uses for liquidity pools that are yet to be uncovered, and it's all up to the ingenuity of DeFi developers.

» DeFi

What Is Decentralized Finance?

Decentralized finance (DeFi) is an emerging financial technology based on secure distributed ledgers similar to those used by cryptocurrencies. The system removes the control banks and institutions have on money, financial products, and financial services.

Some of the key attractions of DeFi for many consumers are:

- It eliminates the fees that banks and other financial companies charge for using their services.
- You hold your money in a secure digital wallet instead of keeping it in a bank.
- Anyone with an internet connection can use it without needing approval.
- You can transfer funds in seconds and minutes.

Key Takeaways:

- Decentralized finance, or DeFi, uses emerging technology to remove third parties in financial transactions.
- The components of DeFi are stablecoins, software, and hardware that enables the development of applications.
- The infrastructure for DeFi and its regulation are still under development and debate.

Understanding DeFi

To understand decentralized finance and how it works, it helps to understand how centralised finance differs from DeFi.

In centralised finance, your money is held by banks, corporations whose overarching goal is to make money. The financial system is full of third parties who facilitate money movement between parties, with each one charging fees for using their services. For example, say you purchase a gallon of milk using your credit card. The charge goes from the merchant to an acquiring bank, which forwards the card details to the credit card network.

The network clears the charge and requests a payment from your bank. Your bank approves the charge and sends the approval to the network, through the acquiring bank, back to the merchant. Each entity in the chain receives payment for its services, generally because merchants must pay for your ability to use credit and debit cards.

All other financial transactions cost money; loan applications can take days to be approved; you might not even be able to use a bank's services if you're travelling.

Two of DeFi's goals are to reduce transaction times and increase access to financial services.

Decentralized Finance

Decentralized finance eliminates intermediaries by allowing people, merchants, and businesses to conduct financial transactions through emerging technology. This is accomplished through peer-to-peer financial networks that use security protocols, connectivity, software, and hardware advancements.
From anywhere you have an internet connection, you can lend, trade, and borrow using software that records and verifies financial actions in distributed financial databases.

A distributed database is accessible across various locations; it collects and aggregates data from all users and uses a consensus mechanism to verify it.
Decentralized finance uses this technology to eliminate centralised finance models by enabling anyone to use financial services anywhere regardless of who or where they are.

DeFi applications give users more control over their money through personal wallets and trading services that cater to individuals.

While taking control away from third parties, decentralized finance does not provide anonymity. Your transactions may not have your name, but they are traceable by the entities that have access. These entities might be governments, law enforcement, or other entities that exist to protect people's financial interests.

How Does DeFi Work?

Decentralized finance uses the blockchain technology that cryptocurrencies use. A blockchain is a distributed and secured database or ledger. Applications called dApps are used to handle transactions and run the blockchain.

In the blockchain, transactions are recorded in blocks and then verified by other users. If these verifiers agree on a transaction, the block is closed and encrypted; another block is created that has information about the previous block within it.

The blocks are "chained" together through the information in each proceeding block, giving it the name blockchain. Information in previous blocks cannot be changed without affecting the following blocks, so there is no way to alter a blockchain. This concept, along with other security protocols, provides the secure nature of a blockchain.

DeFi Financial Products

Peer-to-peer (P2P) financial transactions are one of the core premises behind DeFi. A P2P DeFi transaction is where two parties agree to exchange cryptocurrency for goods or services with a third party involved.

To fully understand this, consider how you get a loan in centralised finance. You'd need to go to your bank or another lender and apply for one. If you were approved, you'd pay interest and service fees for the privilege of using that lender's services.

Peer-to-peer lending under DeFi doesn't mean there won't be any interest and fees. However, it does mean that you'll have many more options since the lender can be anywhere in the world.

In DeFi, you'd use your decentralized finance application (dApp) to enter your loan needs, and an algorithm would match you up with peers that meet your needs. You'd then need to agree to one of the lender's terms and receive your loan.

The transaction is recorded in the blockchain; you receive your loan after the consensus mechanism verifies it. Then, the lender can begin collecting payments from you at the agreed-upon intervals. When you make a payment via your dApp, it follows the same process in the blockchain; then, the funds are transferred to the lender.

DeFi Currency

DeFi is designed to use cryptocurrency for transactions. The technology is still developing, so it is difficult to determine precisely how existing cryptocurrencies will be implemented, if at all. Much of the concept revolves around stablecoin, a cryptocurrency backed by an entity or pegged to fiat currency like the dollar.

The Future of DeFi

Decentralized finance is still in the beginning stages of its evolution. For starters, it is unregulated, which means the ecosystem is still riddled with infrastructural mishaps, hacks, and scams.

Current laws were crafted based on the idea of separate financial jurisdictions, each with its own set of laws and rules. DeFi's borderless transaction ability presents essential questions for this type of regulation. For example, who is responsible for investigating a financial crime that occurs across borders, protocols, and DeFi apps? Who would enforce the regulations, and how would they enforce them?

The decentralized finance ecosystem's open and distributed nature might also pose problems to existing financial regulation.

Other concerns are system stability, energy requirements, carbon footprint, system upgrades, system maintenance, and hardware failures.

Many questions must be answered and advancements made before DeFi becomes safe to use. Financial institutions are not going to let go of one of their primary means of making money—if DeFi succeeds, it's more than likely that banks and corporations will find ways to get into the system; if not to control how you access your money, then at least to make money from the system.

›› NFT

An NFT is a unit of data stored on a digital ledger, called a blockchain, which can be sold and traded.The NFT can be associated with a particular digital or physical asset (such as a file or a physical object) and a licence to use the asset for a specified purpose.

An NFT (and the associated licence to use, copy or display the underlying asset) can be traded and sold on digital markets. The extralegal nature of NFT trading usually results in an informal exchange of ownership over the asset that has no legal basis for enforcement, often conferring little more than use as a status symbol.

NFTs function like cryptographic tokens, but, unlike cryptocurrencies such as Bitcoin or Ethereum, NFTs are not mutually interchangeable, hence not fungible. While all bitcoins are equal, each NFT may represent a different underlying asset and thus may have a different value.NFTs are created when blockchains string records of cryptographic hash, a set of characters identifying a set of data, onto previous records therefore creating a chain of identifiable data blocks. This cryptographic transaction process ensures the authentication of each digital file by providing a digital signature that is used to track NFT ownership. However, data links that point to details such as where the art is stored can be affected by link rot.

Economic theory developed considerably between the appearance of Smith's The Wealth of Nations and the Great Depression, but there was no separation into microeconomics and macroeconomics. Economists implicitly assumed that either markets were in equilibrium—such that prices would adjust to equalise supply and demand—or that in the event of a transient shock, such as a financial crisis or a famine, markets would quickly return to equilibrium. In other words, economists believed that the study of individual markets would adequately explain the behaviour of what we now call aggregate variables, such as unemployment and output.

The severe and prolonged global collapse in economic activity that occurred during the Great Depression changed that. It was not that economists were unaware that aggregate variables could be unstable. They studied business cycles—as economies regularly changed from a condition of rising output and employment to reduced or falling growth and rising unemployment, frequently punctuated by severe changes or economic crises. Economists also studied money and its role in the economy. But the economics of the time could not explain the Great Depression. Economists operating within the classical paradigm of markets always being in equilibrium had no plausible explanation for the extreme "market failure" of the 1930s.

If Adam Smith is the father of economics, John Maynard Keynes is the founding father of macroeconomics. Although some of the notions of modern macroeconomics are rooted in the work of scholars such as Irving Fisher and Knut Wicksell in the late 19th and early 20th centuries, macroeconomics as a distinct discipline began with Keynes's masterpiece, The General Theory of Employment, Interest and Money, in 1936. Its main concern is the instability of aggregate variables.
Whereas early economics concentrated on equilibrium in individual markets, Keynes introduced the simultaneous consideration of equilibrium in three interrelated sets of markets—for goods, labour, and finance.

He also introduced "disequilibrium economics," which is the explicit study of departures from general equilibrium. His approach was taken up by other leading economists and developed rapidly into what is now known as macroeconomics.

Coexistence and complementarity

Microeconomics is based on models of consumers or firms (which economists call agents) that make decisions about what to buy, sell, or produce—with the assumption that those decisions result in perfect market clearing (demand equals supply) and other ideal conditions. Macroeconomics, on the other hand, began from observed divergences from what would have been anticipated results under the classical tradition.

Today the two fields coexist and complement each other.

Microeconomics, in its examination of the behaviour of individual consumers and firms, is divided into consumer demand theory, production theory (also called the theory of the firm), and related topics such as the nature of market competition, economic welfare, the role of imperfect information in economic outcomes, and at the most abstract, general equilibrium, which deals simultaneously with many markets. Much economic analysis is microeconomic in nature. It concerns such issues as the effects of minimum wages, taxes, price supports, or monopoly on individual markets and is filled with concepts that are recognizable in the real world. It has applications in trade, industrial organisation and market structure, labour economics, public finance, and welfare economics. Microeconomic analysis offers insights into such disparate efforts as making business decisions or formulating public policies.

04 How the Crypto World improves financial performance

- The crypto ecosystem continues its rapid growth, presenting both opportunities and challenges. This chapter discusses the latest developments and financial stability challenges posed by the crypto ecosystem, with a focus on emerging markets and developing economies.
- Crypto assets come in different flavours and have evolved to meet varying needs for speculative investment, store of value, currency conversion, and payments. Decentralized finance (DeFi) is gaining momentum by offering new services to users.
- Financial stability risks are not yet systemic, but risks should be closely monitored given the global implications and the inadequate operational and regulatory frameworks in most jurisdictions.
- Challenges posed by the crypto ecosystem include operational and financial integrity risks from crypto asset providers, investor protection risks for crypto assets and DeFi, and inadequate reserves and disclosure for some stablecoins.
- In emerging markets, the advent of crypto assets has benefits but can accelerate cryptoization and circumvent exchange and capital control restrictions. Increased trading of crypto assets in these economies could lead to destabilising capital flows.

• Policymakers should implement global standards for crypto assets and enhance their ability to monitor the crypto ecosystem by addressing data gaps. As the role of stablecoins grows, regulations should correspond to the risks they pose and the economic functions they perform. Emerging markets faced with cryptoization risks should strengthen macroeconomic policies and consider the benefits of issuing central bank digital currencies.

The rapid growth of the crypto ecosystem presents new opportunities. Technological innovation is ushering in a new era that makes payments and other financial services cheaper, faster, more accessible, and allows them to flow across borders swiftly. Crypto asset technologies have potential as a tool for faster and cheaper cross-border payments. Bank deposits can be transformed to stablecoins that allow instant access to a vast array of financial products from digital platforms and allow instant currency conversion. Decentralized finance could become a platform for more innovative, inclusive, and transparent financial services.

Despite potential gains, the rapid growth and increasing adoption of crypto assets also pose financial stability challenges. This chapter discusses the implications of the expansion of the crypto ecosystem and provides an assessment of their associated financial stability risks. For emerging markets and developing economies, greater use of crypto assets presents some benefits, but also macro-financial risks, especially with respect to asset and currency substitution—referred to in this chapter as cryptoization. The chapter concludes with a set of eight actionable policy recommendations. For readers less familiar with the terminology and developments, Online Annex 2.1 provides a brief description of the taxonomy of crypto assets as well as a brief primer on the crypto ecosystem. The IMF has discussed many critical issues relating to regulatory frameworks with respect to crypto assets and digital money.

Some topics that are not covered in detail in this chapter can be found in IMF (2020a) and IMF (2021) along with analysis of financial integrity issues,such as anti-money laundering and combating the financing of terrorism (AML/CFT) (IMF 2020a; IMF 2020b); central bank digital currencies (CBDCs); and more (He and others 2016; Mancini-Griffoli and others 2018; IMF 2019).

Crypto Assets continue to grow through Ups and Downs

The market capitalization of crypto assets has grown significantly amid large bouts of price volatility. Through early May, the market capitalization almost tripled in 2021 to an all-time high of $2.5 trillion. This was followed by a 40 percent fall in May as concerns from institutional holders about the environmental impact of crypto assets grew and global regulatory scrutiny of the crypto ecosystem escalated. The sharp declines during May were likely exacerbated by high use of leverage, which led to automatic liquidations of margin and futures positions by exchanges. Since then, the market value of crypto assets has increased again to more than $2 trillion—a 170 percent increase year to date at the time of writing.

Despite significant price appreciation, the returns of non-stablecoin crypto assets are less impressive when adjusted for volatility. For example, the risk-adjusted returns of Bitcoin over the past year are similar to the performance of broader technology equities or the S&P 500. However, investors are exposed to larger drawdowns. The relative attractiveness of these crypto asset returns can be higher when compared with other asset classes that also experience large drawdowns, such as local currency bonds and equities in some emerging markets and developing economies with weak fundamentals. Another argument often put forward in favour of non-stablecoin crypto assets is their low correlation with other assets, offering diversification benefits to investor portfolios (see the April 2018 Global Financial Stability Report).

Although this is true to some extent, the correlation between these crypto assets and some key asset classes increased significantly during recent episodes of market stress (for example the COVID-19 sell-off in 2020). The diversification benefit could also decline over time if there is continued involvement of institutional holders that are affected by common factors.

A key component of the rise in market capitalization is increasing investor interest in stablecoins; newer technologies, such as Ethereum; other "smart contract" blockchains; and decentralized finance.

- Stablecoins: Their market capitalization has quadrupled in 2021 to more than $120 billion. Tether is the largest stablecoin, but its market share has declined sharply as major centralised crypto exchanges have introduced their own versions (for example, USD Coin by Coinbase and Binance USD by Binance). Stablecoin trading volumes outpace those of all other crypto assets primarily because they are highly usable for settlement of spot and derivatives trades on exchanges. The price stability for the top stablecoins continues to improve, as can be seen in the declining price deviations from the targeted 1:1 peg with the dollar and other currencies in 2021. Their relative price stability has shielded users from the volatility of other crypto assets, which means they do not have to move their funds outside the crypto ecosystem.

- Ethereum and other "smart contract" blockchains: Bitcoin remains the dominant crypto asset, but its market share has declined sharply in 2021 from more than 70 percent to less than 45 percent. Market interest has grown for newer blockchains that use smart contracts and aim to solve the challenges of earlier blockchains by introducing features to ensure scalability, interoperability, and sustainability. The most prominent is Ether, which surpassed Bitcoin trading volumes earlier in 2021.

• Decentralized finance (DeFi): The size of DeFi grew from $15 billion at the end of 2020 to about $110 billion as of September 2021 largely due to the rapid growth of decentralized exchanges that allow users to trade crypto assets without an intermediary and credit platforms that match borrowers and lenders without the need for a credit risk evaluation of the customer. These services operate directly on blockchains (usually) without customer identification requirements. Most of DeFi is built on the Ethereum blockchain and uses Ethereum-based tokens, including stablecoins. DeFi is also one of the main drivers of the rapid growth of stablecoins and warrants close attention. Chainalysis highlights that DeFi users for now are primarily institutional players from advanced economies, whereas adoption among retail users and emerging market and developing economies in general is lagging.

What are the financial stability implications of Crypto Assets?

In October 2018 the Financial Stability Board concluded that crypto assets did not pose a material risk to global financial stability (FSB 2018) but identified several transmission channels that could change its assessment. These channels include risks from the size of market capitalization, investor confidence effects, risks arising from direct and indirect exposures of financial institutions, and risks from the use of crypto assets for payments and settlements.

Since then, some of these channels have grown notably, and new sources of risk have emerged.

• Market capitalization has grown by a factor of 10 and is now comparable to some established asset classes (for example US high-yield bonds). It is still small, however, compared with government bond and stock markets in major advanced economies.

• Episodes of loss of confidence in crypto assets so far have had limited spillovers to broader markets despite large fluctuations in crypto asset valuations. Confidence effects from failures of crypto asset providers have also been limited so far.

However, their importance is rising as trading volumes in some countries' exchanges have increased dramatically and, in some cases, are comparable to the volumes of their respective domestic stock exchanges.

• Exposures to crypto assets in the banking system are growing, albeit from a low base. Exposures appear to be growing faster among some nonbank institutions, most notably hedge funds,78 which can lead to increased indirect exposures of the banking system.

• The use of crypto assets for payments and settlements is still limited, with some exceptions (see the "Cryptoization" section). This channel can accelerate rapidly, given that several global payment companies have only recently started to integrate with the crypto ecosystem, in particular with stablecoins. Finally, new sources of risk are emerging, such as stablecoins and DeFi, which did not exist on a large scale in 2018.
In the future, a widely used stablecoin or DeFi service with a reach and use across multiple jurisdictions could scale up quickly and become systemically important.

Innovations that have given rise to the crypto ecosystem are significant and can create tangible benefits for countries, but the risks should be kept in check. At a global level, financial stability risks appear contained for now,89 but the macro-criticality of crypto assets, and in particular stablecoins, can be significantly higher for some emerging markets and developing economies where adoption has progressed fast. The next sections focus on the following issues (Table 2.1): (1) challenges from the crypto ecosystem arising from operational risks, market integrity, data availability, and cross-border activities; (2) stablecoin-specific issues linked to their design, use, and regulation and supervision at the domestic and global levels; and (3) macro-financial stability issues such as cryptoization, which are more prominent in emerging market and developing economies.

Challenges Posed by the Crypto Ecosystem The rapid growth of the ecosystem has been accompanied by the entrance of new entities, some of which have poor operational, cyber risk management, and governance frameworks.

• Operational risks can result in significant downtime when failures and disruptions prevent the use of services and even result in large losses of customer funds. Such risks have coincided with periods of high transaction activity and can result from poorly designed systems and controls. For example, on May 19, when liquidations of leveraged positions peaked, major exchanges reported outages, citing "network congestion."

• Cyber risks include high-profile cases of hacking-related thefts of customer funds. Such attacks take place on centralised elements of the ecosystem (for example, wallets and exchanges) but can also arise on the consensus algorithms that underpin the operation of blockchains.

• Governance risks involve the lack of transparency around issuance and distribution of crypto assets and have resulted in investor losses.

So far, losses as a result of such risks have not had a significant impact on financial stability, globally or domestically. However, as crypto assets grow, the macro-criticality of such risks is likely to increase. In addition, the crypto ecosystem remains exposed to concentration risks, given its large reliance on a few entities (for example, Binance handles more than half of trading volumes, and Tether has issued more than half the supply of stablecoins).

With limited or inadequate disclosure and oversight, the crypto ecosystem is exposed to consumer fraud and market integrity risks. Most crypto assets are highly volatile, speculative assets.
One notable recent example was the increased investor interest in "meme tokens" . Some of these tokens were created for speculation purposes, and their price was highly influenced by social media trends.
Relatedly, investors are also likely to face losses from tokens ceasing to exist—something that is less common in regulated securities markets.

For example, more than 16,000 tokens have been listed on various exchanges over time, but around 9,000 exist today.

Risks can be further amplified by the use of leverage offered in crypto exchanges, which has been as high as 125 times the initial investment. In response to such risks, many jurisdictions have taken action or issued public warnings over the past few months, such as the central banks of Argentina (BCRA 2021), Mexico (Banxico 2021), and Thailand (Thai SEC 2021), which prohibited exchanges from offering tokens with certain characteristics; others imposed regulatory limits or banned derivative products across several exchanges (for example, Japan FSA 2021; UK FCA 2020).

DeFi products can expose users to even larger risks. Products can be more complex and less transparent, with large technological and governance risks arising from faulty computer code. The lack of central intermediaries complicates authorities' efforts to monitor and regulate these products.

As a result, many DeFi products contain risk disclosures that do not adequately warn against their large and volatile returns111. In addition, DeFi has been the victim of hacking, such as the record $0.6 billion hack of Polychain in August, and scams, such as rug pulls, in which developers abandon projects but keep investors' funds.

The anonymity of crypto assets and limited global standards create significant data gaps for regulators. Although authorities may be able to trace transactions that are executed on blockchains, they may not be able to identify the parties to a transaction. In addition, the crypto ecosystem falls under varied regulatory frameworks across countries, which results in little or no monitoring and information sharing across jurisdictions. Despite some progress through the AML/CFT obligations for crypto asset providers set out by the Financial Action Task Force (FATF), their implementation is still at an early stage (FATF 2021), with notable delays in key areas such as the "travel rule."

Monitoring the activity of crypto asset service providers is complicated by limited, fragmented, and, in some cases, unreliable data. Public data sharing by crypto asset providers is currently mostly voluntary and lacking standardisation. For example, while most major crypto exchanges report their trading activity, the information content varies widely, ranging from minimal information to full real-time order books. In addition, given that data are self-reported, there are incentives to manipulate the reporting of higher volumes so as to rank higher on exchange rankings.

Analysing on-chain activity is also challenging, given that data analysis techniques are at an early stage. On-chain data analytics companies have so far focused on detecting illicit activities, as opposed to providing reliable macro-relevant metrics regarding on-chain activity.

The FATF recently published a survey (FATF 2021) on the peer-to-peer (P2P) transactions of seven data companies in an attempt to detect the possibility that illicit P2P transfers are growing, given that such transfers are not explicitly subject to FATF standards. The survey shows large variation: one company estimated that 80 percent of the dollar value of Bitcoin transactions in 2020 occurred without a crypto asset provider, while another estimated it at only 3 percent.

Crypto asset providers offer and market their services in many jurisdictions, which makes their regulation and supervision more challenging. They are often headquartered in jurisdictions with favourable regulatory, tax, and legal frameworks. For example, most transactions on crypto exchanges take place through entities that operate primarily in offshore financial centres.

In addition, many countries do not have conduct or prudential regulations in place that encompass the activities of crypto asset service providers. And even though some jurisdictions require some type of registration or authorization process, the scope of such regulations in many cases is limited to AML/CFT.

The absence of effective supervision and regulatory frameworks can create regulatory arbitrage and curtail enforcement. For example, users can access crypto assets through global crypto exchanges or wallets, even though these providers lack domestic banking relationships.

The use of sovereign currencies on these platforms can occur through third-party payment processing companies taking advantage of regulatory loopholes.

Some jurisdictions, such as Malaysia, Nigeria, and Turkey, recently imposed restrictions on payments and/or transactions through global exchanges, such as Binance.

However, such actions cannot prevent on-chain transactions—for example, P2P transfers through online chat rooms or the use of decentralized exchanges (see the "Cryptoization" section).

Issues Specific to Stablecoins

The term "stablecoin" captures a very diverse set of crypto assets and can be misleading. While all aim to anchor their value to a specific asset (typically the US dollar) or a group of assets, stablecoins can be classified across a spectrum, depending on the type and credit quality of their collateral backing as well as their price stabilisation mechanisms.

- Cash-based: Fully backed by cash or liquid and safe assets (such as bank deposits and US government bills). These stablecoins are redeemable by the issuer at face value.

Their reserves are normally maintained by regulated entities, such as onshore US banks, and they may also provide a higher level of transparency, such as detailed disclosure of reserve assets and clear documentation of redemption rights, including full segregation from other corporate assets.

- Asset-based: Fully backed by non cash equivalent assets (for example, corporate bonds, commercial paper, or commodities) and cash. These stablecoins are akin to money market funds prior to the reforms that followed the global financial crisis.

Issuers and exchanges may market these stablecoins as immediately redeemable at face value, but in some cases—especially during periods of market stress—some issuers may be able to defer redemption, offer in-kind redemption, or impose higher redemption fees.

- Crypto-asset-based: Backed by other crypto assets. For example, DAI is (over-) collateralized by a portfolio of crypto assets, such as Ether, Bitcoin, and USD Coin. These stablecoins are usually structured on a decentralized, noncustodial basis and are considered part of DeFi. A further category comprises "algorithmic" stablecoins (also referred to as "non collateralized") that aim to maintain their peg using algorithms that increase or decrease the supply of tokens according to market conditions.

The regulation of stablecoins varies substantially across jurisdictions, inviting concerns about regulatory gaps, inconsistent regulatory treatment, and regulatory arbitrage.1617 The following are three categories of regulation:

• Comprehensively regulated: Currently, no stablecoin arrangement fully meets this status.1718 An example of such a stablecoin would be one issued by a commercial bank, subject to comprehensive prudential, conduct, and governance requirements.

• Partially regulated by existing regimes: Elements of stablecoin arrangements (for example, for reserve managers) are regulated for conduct and prudential purposes or for limited purposes (for example, AML/CFT). Some stablecoin issuers, such as trust companies and money transmitters, have been licensed and regulated by the existing regulatory frameworks in the United States.
Regulators may be able to access information, but regulatory tools may be limited and unable to address all the risks of stablecoin issuers. Furthermore, some exchanges and wallet providers that support stablecoins may fall only under AML/CFT requirements, while some reserve managers and custodians may be regulated entities.

• Non Regulated: No prudential or conduct regulation of stablecoin arrangements. Many regulators are still in the process of developing applicable regulations, as many stablecoins currently fall into this category. Some US dollar stablecoin issuers that have chosen to be headquartered offshore and operate through offshore banks are non regulated.

Currently, many stablecoins suffer from poor disclosure. Although stablecoin issuers are improving in this regard, there is a need for substantial upgrades to meet the same level of disclosure standards as commercial banks and money market funds. For example, Tether, the world's largest stablecoin by market capitalization, has disclosed the composition of its reserve assets. However, such disclosure is not yet audited by independent accountants, and some important information is still missing, including domicile, denomination of currencies, and sector of commercial paper holdings.

Moreover, the recent disclosure by Tether reveals a higher degree of liquidity mismatch than for other major stablecoins. Even though Tether allows direct and "immediate" 1:1 redemption for US dollars for a small fee, only one-third of its reserves are backed by cash and Treasury bills; about half is invested in commercial paper.

Some stablecoins can be subject to runs, with repercussions for the financial system. This could be driven by doubts about their redeemability at a 1:1 peg due to the value of their reserves or the speed at which reserves can be liquidated to meet potential redemptions. In June 2021 a small algorithmic stablecoin (IRON) experienced a run (Figure 2.3, panel 2) as one-quarter of its reserves were backed by another token (TITAN) whose market value went to zero. Even if stablecoins are, for the time being, not large enough to be deemed "systemic," there are financial stability implications for large banks in the event of fire sales of the assets that back stablecoins. An investor run in one country can also lead to cross-border spillovers if large global crypto exchanges are involved. The concentrated ownership of stablecoins by market makers could also trigger wider contagion. Run risks could also trigger a fire sale of commercial paper. In many jurisdictions, including the United States, the liquidity of commercial paper is worse than that of other short-term assets, such as government bills, especially during periods of market stress (as seen during the COVID-19 sell-off in 2020).

The contagion risk can be much higher where reserve assets are concentrated in particular issuers or sectors. Although this risk might be Tether-specific for now, given its size and types of holdings, this kind of contagion risk could evolve for other stablecoins in the future.

Cryptoization

Crypto adoption in some emerging market and developing economies has outpaced that of advanced economies. According to a recent survey, the top five countries using or owning crypto assets in 2020 were emerging market and developing economies, whereas the lowest adopters were generally advanced economies (Statista 2021). Another recent survey (Finder 2021), with a more limited set of countries, also reaches similar conclusions, placing emerging market economies in Asia among the top and advanced economies, such as the United Kingdom and the United States, among the bottom. Some emerging market country-specific surveys also show a large jump in adoption over the past year.

Beyond surveys, tracking country-specific adoption can be challenging. So far, there is no reliable way to estimate the stock or flow of crypto assets based on country residency. A commonly used proxy is residency estimates based on internet visits to websites of crypto asset providers. These confirm the survey data to show the popularity of several global crypto exchanges among emerging market and developing economies, but they cannot measure the actual use of crypto assets. Another metric is the sizeof trading volumes of crypto exchanges that operate only in specific countries rather than globally. Among a sample of such exchanges in emerging market and developing economies, the reported traded volume in 2021 rose sharply and, in some cases, volumes have become comparable to the activity on the local stock exchange .2021 Finally, some blockchain analytics companies attempt to infer the residency of on-chain crypto asset flows.

Similar to surveys, their data show that adoption in emerging market and developing economies is rising and has outpaced that in advanced economies, but the interpretation of the data poses significant challenges.

There are several driving forces for cryptoization. Unsound macroeconomic policies combined with inefficient payment systems in some emerging markets and developing economies boost crypto adoption. Some potential pull factors for crypto adoption, such as speculative retail investing, may be common across countries, but some of the recent drivers are likely more specific to a subset of emerging markets and developing economies. For example,

• Weak central bank credibility and a vulnerable banking system can trigger asset substitution as domestic residents seek a safer store of value. Dollarization pressures are a persistent risk for several emerging markets and developing economies. The crypto ecosystem can help domestic residents convert some of the headwinds of traditional dollarization—such as exchange rate restrictions and challenges in accessing and storing foreign assets—into tailwinds. For example, global crypto exchanges or other less secure methods, such as P2P transfers, can be used 21, to bypass capital flow management measures; private wallets can act as a form of offshore bank account to store wealth.

• Inefficiencies in payment systems and limited access to financial services can also be a driver of dollarization. One prominent example of inefficiencies is the lack of interoperability among various domestic payment systems, which can be a problem for remittances as well as trade. Given the large share of unbanked people in some emerging markets and developing economies, remittances often take place through cumbersome cash-based methods, such as those of post offices and other transfer operators.

The payment rails of crypto assets can make some of these services faster and cheaper, especially through the integration of stablecoins, which allow for a stable unit of account. Of course, such gains rely on access to the internet and other technologies, which are scarce in many countries.

Macro-financial challenges depend critically on the degree of adoption.

• A limited degree of adoption—for example, small-scale use of crypto assets for remittances—will pose some of the challenges discussed earlier (see the "Challenges Posed by the Crypto Ecosystem" section) but will have a marginal impact on monetary policy or capital flows.

Even when crypto payment rails are used, the underlying crypto assets will likely be held for only a short time (for example, the duration of the remittance) before users exchange them for local currency to make purchases domestically.

• More extensive degrees of adoption—such as the adoption of stablecoins as means of payment and store of value—can pose more significant challenges by reinforcing dollarization forces in the economy. Dollarization can impede central banks' effective implementation of monetary policy and lead to financial stability risks through currency mismatches on the balance sheets of banks, firms, and households.

This can be further amplified by liquidity risks, as central banks are not able to provide liquidity backstops in foreign units of account (IMF 2020a). Cryptoization could moreover pose a threat to fiscal policy: crypto assets can facilitate tax evasion, and seigniorage revenue may also decline due to the shrinking role of central bank money in the economy.

The adoption of a crypto asset as the main national currency carries significant risks and is an inadvisable shortcut. Adrian and Weeks-Brown (2021) discuss such risks to macro-financial stability, financial integrity, consumer protection, and the environment.

For now, the probability of such a scenario occurring due to a choice of households and businesses is low for most countries, given that the value of non-stablecoin crypto assets is too volatile and unrelated to the real economy to become the main unit of account. Such a scenario, however, could arise in countries with weak monetary and exchange rate policies where the risks associated with the use of volatile crypto assets is still a relative improvement over existing policies.

Increased demand for crypto assets could facilitate capital outflows that affect the foreign exchange market. Crypto exchanges play the crucial role of facilitating the conversion of local currency to crypto assets and vice versa. The natural2728 demand and supply for conversions can easily become unbalanced over the 24/7 trading period of crypto asset markets. For markets to clear, some market makers must provide liquidity by trading more liquid pairs (such as US dollar–Bitcoin and US dollar–local currency) to determine the price of the less liquid pair (local currency–Bitcoin).

This type of triangular arbitrage is usually facilitated by institutional participants that have access to larger pools of liquidity in markets that do not include domestic retail participants (for example, offshore funding markets). In periods when domestic demand for crypto assets rises substantially, these institutional participants can act as gateways for conversion of crypto asset demand to capital outflows through the exchange rate market. The recent sharp rise in trading volumes of crypto assets against some emerging market and developing economy currencies may have been the source of spillovers in the exchange rate market that led to recent restrictions imposed by authorities.

Policy measures can be somewhat effective at ring-fencing the impact of rising crypto asset demand in the foreign exchange market. Capital flow management measures and other crypto-asset-specific measures can have a notable impact in terms of creating market segmentation (see Makarov and Schoar 2020).

For example, in Korea, Bitcoin purchases had premia as high as 50 percent in 2018 due to strong domestic demand and restrictions that kept arbitrage activities at bay. However, such restrictions on crypto asset trading may trigger new leakages as trading moves away from exchanges and over to peer-to-peer and other less formal or less visible channels (such as chat rooms on the instant messaging system Telegram).

A migration of "mining" activity to emerging markets and developing economies can also have serious implications for capital flows as well as for energy consumption. Validating on-chain transactions for many crypto assets is done by so-called proof-of-work or mining, whereby members of the network solve a complex mathematical problem using computing power. Following a crackdown on mining activity in China in early 2021, mining activity started to migrate to other emerging market and developing economies and to theThis movement can have important implications for

• Energy consumption: Miners use electricity to power their hardware. By some estimates, mining in the Bitcoin network consumes about 0.36 percent of the world's electricity—comparable3031 to the consumption of Belgium or Chile. Large migration of mining activity can lead to a significant rise in domestic energy use, especially in countries that subsidise energy costs. However, future generations of Ethereum and other smart blockchains are expected to consume much less energy than Bitcoin.

• Capital flows: Miners are rewarded for their activities on-chain in the form of crypto assets. For example, the value of mining revenues in 2021 has exceeded $1 billion a month, on average, for each of the Bitcoin and Ethereum blockchains. Mining revenue can potentially be used to circumvent capital flow restrictions as well as international financial sanctions, given that the main operating costs of miners (for example, electricity) are normally paid domestically in local currency, but their revenues are paid on-chain in the form of crypto assets.

The banking sector can also come under pressure if the crypto ecosystem becomes an alternative to domestic bank deposits or even loans. Stronger competition for bank deposits through stablecoins held on crypto exchanges or private wallets may push local banks toward less stable and more expensive funding sources to maintain similar levels of loan growth. Beyond the direct loss in net interest income, a loss of customer relationships and data on transactions would also undermine credit risk assessment for clients and their ability to offer targeted products to clients.

Policies to Ensure Macro-Financial Stability

Fintech innovation, including the crypto ecosystem, has the potential to improve fundamental aspects of the macroeconomy with better financial services and greater financial inclusion, especially in emerging markets and developing economies. Policymakers need to balance enabling financial innovation and reinforcing competition and the commitment to open, free, and contestable markets, on one hand, against challenges to financial integrity, consumer protection, and financial stability. As a first step, regulators and supervisors need to be able to monitor rapid developments and the risks they create. Depending on country circumstances, various forms of crypto assets may be adopted, and their economic functions may vary. Different countries have different policy priorities arising from the degree of crypto adoption and their existing vulnerabilities.

For example, the risks connected with adoption for transaction purposes differ from those arising from widespread use as a store of value or a new unit of account. Risks to financial integrity are high from crypto assets operating on anonymous platforms, but they may be addressable for some stablecoins. This chapter offers policy recommendations relating to three main areas: regulation, supervision, and monitoring of the crypto ecosystem; stablecoin-specific risks; and managing the macro-financial risks in emerging markets and developing economies.

Standards, Supervision, and Data National regulators should prioritise the implementation of complete global standards applicable to crypto assets. Although standards applicable to crypto assets are currently limited to AML/CFT (FATF) and proposals on the exposure of banks to crypto assets (BCBS), other standards—such as those of the International Organisation of Securities Commissions (IOSCO) and the Committee on Payments and Market Infrastructures' Principles for Financial Market Infrastructures (CPMI/PFMI)—provide a robust groundwork for regulation and supervision of crypto assets.

For example, standards regarding the powers and independence of supervisors, operational resilience, disclosure, and governance have existed for some time, but still lack adequate implementation. If crypto exchanges deal with tokens that meet the definition of securities, those entities should be subject to existing international standards for securities intermediaries. All jurisdictions should implement such standards. Globally, policymakers should prioritise making cross-border payments faster, cheaper, more transparent and inclusive through the G20 Cross Border Payments Roadmap (G20 2020). The IMF can support such efforts through Financial Sector Assessment Programs and technical assistance. Robust and globally consistent standards are needed to mitigate financial stability risks. Where standards have not yet been developed, regulators need to use existing tools to control risk and implement a flexible framework for crypto assets.

The growing systemic implications of crypto assets may indeed warrant immediate regulatory action in some countries. Regulators must use existing measures and international standards by focusing on areas of acute risk, such as wallets, exchanges, and financial institutions' exposures.
Authorities should ensure that the regulatory framework is flexible enough to be adjusted in the future, in line with forthcoming international standards. Interim measures should be taken, including clear consumer warnings and investor education programs, especially where crypto adoption has been fast, such as in some emerging markets and developing economies.

National regulators should enhance cross-border coordination of supervision and enforcement actions. For example, because it is difficult to implement and enforce an adequate regulatory framework, some authorities have taken strong actions, such as banning unregulated crypto asset activities. Although bans can have a direct impact on the business of crypto exchanges, individuals are still likely to be able to trade and exchange crypto assets by alternative means.

Therefore, jurisdictions should actively coordinate with the relevant authorities and international standard-setting bodies to maximise the effectiveness of their enforcement actions and minimise regulatory arbitrage. Greater cross-border collaboration can enhance enforcement actions, but the resources needed for such enforcement may present a greater challenge for emerging markets and developing economies. Swiftly tackling data gaps is central to informing policy decisions. Greater data standardisation can lead to better oversight of new developments and a more accurate understanding of risks and can support proportionate regulation of crypto asset markets. In that regard, an international agreement on common minimum principles for data should be developed. A globally consistent taxonomy can help data standardisation and cooperation

There is also scope for international coordination on compilation and sharing of data sources from private companies for regulatory and public policy purposes. Stablecoins Stablecoins require regulations proportionate to their risk and the economic functions they serve, taking into account recommendations put forward by the Financial Stability Board, which recently finalised 10 high-level recommendations comprehensively covering requirements—such as governance, risk management, transparency, and redemption rights—with the underlying principle of "same business, same risk, same rules."

As a matter of priority, authorities should ensure that widely used stablecoins have effective risk management frameworks with regard to credit and liquidity risks as well as operational, AML/CFT, and cyber risks, among others. Regulation and supervision of stablecoins could be enhanced through cooperation agreements between country authorities that consider the various types of risks stablecoins pose for each country. Certain US dollar–linked stablecoins seek to base their operations in chartered banks in the United States. Meeting banking licence requirements would resolve many regulatory challenges.There are areas of acute risk in stablecoin arrangements that require more immediate attention. Various functions, including reserves management, network administration and governance, custody, and exchange services, can generate risks to consumer protection, financial stability, market and financial integrity, and operational and cyber resilience. Authorities should consider measures—such as enhanced disclosure requirements, independent audit of reserves, fit and proper rules for network administrators and issuers, and rules around enhanced operational and cyber resilience—to reflect the increased reliance on digital platforms and various types of distributed ledger technology. Where stablecoins generate systemic risk, their regulatory obligations should reflect this position, with rules aligned with traditional entities that provide similar products (for example, bank deposits, digital payments, money market funds, and so on).

Managing Macro-Financial Risks Reversing or averting dollarization requires strong macroeconomic policies, but these may not by themselves be enough.
Crypto assets on their own do not change the economic forces that lead to the international use of currencies or increased dollarization. Yet the technological advance of the crypto ecosystem, and especially stablecoins, could reinforce the incentives behind currency and asset substitution and ease adoption.
Hence, the tolerance for policy missteps is greatly reduced (IMF 2020a). Countries that want to fend off dollarization will need to strengthen monetary policy credibility, safeguard the independence of central banks, and maintain a sound fiscal position along with effective legal and regulatory measures to disincentivize foreign currency use. Similarly, although simply issuing central bank digital currencies does not automatically change the incentives to hold foreign currencies, central bank digital currencies may help reduce dollarization if they help satisfy a need for better payment technologies.
A number of countries have launched similar projects to modernise their payment systems, taking advantage of the latest developments in digital technology and using the domestic currency for instant payments. The design of capital flow restrictions in a digital world needs to be reconsidered, including via stablecoin regulations. Applying established regulatory tools to manage capital flows may be more challenging when value is transmitted on new platforms that are not bound by existing capital flow management measures (IMF 2021).

Because of the way private entities organise or relocate their activities, the effectiveness of regulation, supervision, oversight, and enforcement of capital flow management measures faces challenges at jurisdictional levels. Therefore, there is a need for cross-border collaboration and cooperation to address the technological, legal, regulatory, and supervisory challenges (IMF 2021; IMF and BIS 2021). In particular, the host authorities where stablecoins are more widely used should be encouraged to establish a close coordination mechanism with the home regulator where stablecoin reserves are managed.

05 Blockchain and Crypto

Blockchain defined: Blockchain is a shared, immutable ledger that facilitates the process of recording transactions and tracking assets in a business network.
An asset can be tangible (a house, car, cash, land) or intangible (intellectual property, patents, copyrights, branding). Virtually anything of value can be tracked and traded on a blockchain network, reducing risk and cutting costs for all involved.

Why blockchain is important: Business runs on information. The faster it's received and the more accurate it is, the better. Blockchain is ideal for delivering that information because it provides immediate, shared, and completely transparent information stored on an immutable ledger that can be accessed only by permission from the network members.

A blockchain network can track orders, payments, accounts, production, and much more. And because members share a single view of the truth, you can see all details of a transaction end to end, giving you greater confidence, as well as new efficiencies and opportunities.

Key elements of a blockchain

Distributed ledger technology

All network participants have access to the distributed ledger and its immutable record of transactions. With this shared ledger, transactions are recorded only once, eliminating the duplication of effort that's typical of traditional business networks.

Immutable records

No participant can change or tamper with a transaction after it's been recorded to the shared ledger. If a transaction record includes an error, a new transaction must be added to reverse the error, and both transactions are then visible.

Smart contracts

To speed transactions, a set of rules — called a smart contract — is stored on the blockchain and executed automatically. A smart contract can define conditions for corporate bond transfers, include terms for travel insurance to be paid, and much more.

How blockchain works

As each transaction occurs, it is recorded as a "block" of data

Those transactions show the movement of an asset that can be tangible (a product) or intangible (intellectual). The data block can record the information of your choice: who, what, when, where, how much, and even the condition — such as the temperature of a food shipment.

Each block is connected to the ones before and after it.

These blocks form a chain of data as an asset moves from place to place or ownership changes hands. The blocks confirm the exact time and sequence of transactions, and the blocks link securely together to prevent any block from being altered or a block being inserted between two existing blocks.

Transactions are blocked together in an irreversible chain: a blockchain. Each additional block strengthens the verification of the previous block and hence the entire blockchain. This renders the blockchain tamper-evident, delivering the key strength of immutability. This removes the possibility of tampering by a malicious actor — and builds a ledger of transactions you and other network members can trust.

Benefits of blockchain

What needs to change: Operations often waste effort on duplicate record keeping and third-party validations. Record-keeping systems can be vulnerable to fraud and cyberattacks. Limited transparency can slow data verification. And with the arrival of IoT, transaction volumes have exploded. All of this slows business, drains the bottom line — and means we need a better way. Enter blockchain.

Greater trust

With blockchain, as a member of a members-only network, you can rest assured that you are receiving accurate and timely data, and that your confidential blockchain records will be shared only with network members to whom you have specifically granted access.

Greater security

Consensus on data accuracy is required from all network members, and all validated transactions are immutable because they are recorded permanently. No one, not even a system administrator, can delete a transaction.

More efficient

With a distributed ledger that is shared among members of a network, time-wasting record reconciliations are eliminated. And to speed transactions, a set of rules — called a smart contract — can be stored on the blockchain and executed automatically.

Types of blockchain networks

There are several ways to build a blockchain network. They can be public, private, permissioned, or built by a consortium.

Public blockchain networks

A public blockchain is one that anyone can join and participate in, such as Bitcoin. Drawbacks might include substantial computational power required, little or no privacy for transactions, and weak security. These are important considerations for enterprise use cases of blockchain.

Private blockchain networks

A private blockchain network, similar to a public blockchain network, is a decentralized peer-to-peer network. However, one organisation governs the network, controlling who is allowed to participate, execute a consensus protocol and maintain the shared ledger. Depending on the use case, this can significantly boost trust and confidence between participants. A private blockchain can be run behind a corporate firewall and even be hosted on-premises.

Permissioned blockchain networks

Businesses that set up a private blockchain will generally set up a permissioned blockchain network. It is important to note that public blockchain networks can also be permissioned. This places restrictions on who is allowed to participate in the network and in what transactions. Participants need to obtain an invitation or permission to join.

Consortium blockchains

Multiple organisations can share the responsibilities of maintaining a blockchain. These pre-selected organisations determine who may submit transactions or access the data. A consortium blockchain is ideal for business when all participants need to be permissioned and have a shared responsibility for the blockchain.

Blockchain security

Risk management systems for blockchain networks

When building an enterprise blockchain application, it's important to have a comprehensive security strategy that uses cybersecurity frameworks, assurance services, and best practises to reduce risks against attacks and fraud.

Blockchain is one of the fastest-growing digital technologies in recent history, and its revolutionary decentralized model is being appropriated by industries far and wide. Part of its popularity is derived from cryptocurrency, which is now a decade old—calculating by 2009, the launch year of Bitcoin, the first established cryptocurrency.

Unleashing blockchain in finance

For blockchain, the future is now. The distributed ledger technology first gained prominence years ago as the backbone of bitcoin, the pioneering cryptocurrency. But while the digital currency's value has fluctuated, blockchain's potential as a groundbreaking technology for business, capable of slicing through layers of inefficiency, is gaining momentum.

In Deloitte's 2018 global blockchain survey, which drew responses from 1,053 executives across seven countries, 74% reported that their organisations see a "compelling business case" for using blockchain technology.1 Fueling that interest is a growing awareness of the value blockchain can drive as a platform that integrates operational processes such as supply chain, customer/channel operations, and service with finance processes. In doing so, the technology may replace today's siloed approach to transaction processing, with its multiple handoffs and time consuming data entry and reconciliations.

In addition to driving significant efficiencies and cycle-time reductions, blockchain provides full end-to-end transparency across operations and finance, enabling predictive operational insights and opportunities to optimise working capital.

Little wonder that a recent report in Deloitte's "Crunch time" series points out that "Blockchain has the potential to reshape processes that are defined inside finance, primarily because of its cost and control benefits." Now is the time for CFOs to act. In Deloitte's global blockchain survey, more than two thirds of respondents say their companies will lose a competitive advantage if they do not adopt blockchain.

And in this issue of CFO Insights, we will explain blockchain's defining characteristics, explore its potential roles within finance, and help finance chiefs familiarise themselves with its benefits.

What blockchain does

Blockchain can be used to remake a wide range of finance processes: intercompany transactions (when there are multiple ERPs), procure-to-pay, order-to-cash, rebates, warranties, financing (such as trade finance, letters of credit and invoice factoring). Any place paper piles up presents an opportunity for blockchain to move in and knock it down.

For example, using blockchain as a transaction platform for a supply chain can improve performance. Companies connected to blockchain-powered platforms can boost the efficiency of traditional letters of credit, which require an abundance of documentation and time. The back-and-forth transaction, conducted among parties on a shared platform, could conceivably be completed in hours, compared to the five days a paper-based system devours.

Blockchain can also reduce the cost and friction involved in repetitive finance tasks, cutting both errors and delays. In a typical accounts payable or receivable function, an inordinate amount of time can be wasted reconciling the supplier's data with that of the buyer. Having both parties share access to a single source of truth can eliminate such inefficiencies.

By providing a single source of truth— certified by all participants involved— blockchain eliminates the need to continually confirm that the transaction record on one CFO's screen matches that of his or her counterpart's on the other side of a deal. By giving finance leaders a real-time picture of a given financial situation— even an intercompany transaction, which involves such shifting components as tax laws, exchange rates, and compliance requirements—blockchain equips them to improve their decision-making.

Where blockchain fits

Beyond its impact on any individual organisation or function, blockchain may ultimately disrupt paper-clogged industries, such as health care and insurance. At this point, the earliest rumbles of those upheavals are now barely audible. Among respondents to the 2018 global blockchain survey, 84% say that blockchain will eventually reach mainstream adoption. Yet, half of the respondents reported that blockchain is either not among their organisation's top five strategic priorities (29%) or not a strategic priority at all (21%).7 They are choosing to take a wait-and-see approach, likely because they can't figure out where to start. For now, CFOs should consider beginning the journey with a few steps that can provide them with a better understanding of the technology.

From there, they can identify and prioritise the finance pain points that the technology could potentially address. Here are a few steps for CFOs to consider:

1. Assign a blockchain champion. Blockchain should be a business-led initiative, requiring strong sponsorship and leadership provided from the ranks of finance executives. The designated leader can assign a few junior resources to study the ever-growing body of literature about blockchain. While doing so, they can start to envision how the various functions might benefit from implementing blockchain, identify value drivers, and build business case frameworks.

2. Invest in talent. Pull together a focused cross-section team from supply chain, customer/channel operations, service, and finance to identify and prioritise pain points that could be targeted and develop a hypothesis around how the use of blockchain will solve the business problem. Make sure this group represents professionals from both the functional and technical teams within the ecosystem.

3. Forget technology. Focus on how blockchain will potentially disrupt or shift your operating model. The process involves understanding the transformative nature of blockchain, then talking with customers, suppliers, and C-suite peers to identify potential use cases. Given that blockchain's value proposition relies on multiparty transactions, select external partners who share the business challenge you are focused on and are therefore likely to be receptive to participating sometime in the future. Internally, engage your C-suite peers in the ongoing journey. Since blockchain validates data at the source, it will set a new standard for data integrity that can be applied across the enterprise—ultimately redefining core processes.

4. Think big, start small, and iterate often. Understanding the "art of the possible" is creating a lot of excitement, but where to start? Blockchain's capabilities may be put to more efficient use in the external world, but as an introduction to the technology, it may be best to focus on an internal issue, such as intercompany transactions. This can provide the opportunity to safely learn more about the technology, gain experience in solution design, and acquire confidence from doing an implementation. Then, the team can leverage its knowledge of, and experience with, blockchain in the outside world.

5. Launch a pilot. Having identified finance pain points, select a use case where blockchain will likely produce a real return on investment (ROI). Track the results, especially transaction times and costs, to judge the technology's suitability for large scale iterative processes.

For CFOs, blockchain is one of many tools that can reshape the finance function process by process. Like artificial intelligence (AI), machine learning, predictive analytics, and big data, blockchain has matured to the point where it's unwise for finance leaders to hesitate. Only by gaining a practical understanding of blockchain now can CFOs position finance to fully realise its benefits by the time it reaches the mainstream.

›› CRYPTO

What Is Cryptocurrency?

A cryptocurrency is a digital or virtual currency that is secured by cryptography, which makes it nearly impossible to counterfeit or double-spend. Many cryptocurrencies are decentralized networks based on blockchain technology—a distributed ledger enforced by a disparate network of computers. A defining feature of cryptocurrencies is that they are generally not issued by any central authority, rendering them theoretically immune to government interference or manipulation.

Understanding Cryptocurrencies

Cryptocurrencies are systems that allow for secure payments online which are denominated in terms of virtual "tokens" represented by ledger entries internal to the system. "Crypto" refers to the various encryption algorithms and cryptographic techniques that safeguard these entries, such as elliptical curve encryption, public-private key pairs, and hashing functions.

Types of Cryptocurrency

The first blockchain-based cryptocurrency was Bitcoin, which still remains the most popular and most valuable. Today, there are thousands of alternate cryptocurrencies with various functions and specifications. Some of these are clones or forks of Bitcoin, while others are new currencies that were built from scratch.

Bitcoin was launched in 2009 by an individual or group known by the pseudonym "Satoshi Nakamoto." As of Aug. 2021, there were over 18.8 million bitcoins in circulation with a total market cap of around $858.9 billion, with the figure updating frequently. Only 21 million bitcoins exist, preventing both inflation and manipulation.

Some of the competing cryptocurrencies spawned by Bitcoin's success, known as "altcoins," include Litecoin, Peercoin, and Namecoin, as well as Ethereum, Cardano, and EOS. By Aug. 2021, the aggregate value of all the cryptocurrencies in existence is over $1.8 trillion—Bitcoin currently represents approximately 46.5% of the total value.

The rise of using cryptocurrency in business

An increasing number of companies worldwide are using bitcoin and other digital assets for a host of investment, operational, and transactional purposes. As with any frontier, there are unknown dangers, but also strong incentives. Explore the kinds of questions and insights enterprises should consider as they determine whether and how to use digital assets.

Why consider using crypto?

More than 2,300 US businesses accept bitcoin, according to one estimate from late 2020, and that doesn't include bitcoin ATMs. An increasing number of companies worldwide are using bitcoin and other digital assets for a host of investment, operational, and transactional purposes.

The use of crypto for conducting business presents a host of opportunities and challenges. As with any frontier, there are both unknown dangers and strong incentives. That's why companies venturing to use crypto in their businesses should have two things: a clear understanding of why they are undertaking that action and a list of the many questions they should consider

What can crypto do for your company?

To spark your company's thinking about crypto, here are some of the rationales behind why some companies are currently using crypto:

- Crypto may provide access to new demographic groups. Users often represent a more cutting-edge clientele that values transparency in their transactions. One recent study found that up to 40% of customers who pay with crypto are new customers of the company, and their purchase amounts are twice those of credit card users.
- Introducing crypto now may help spur internal awareness in your company about this new technology. It also may help position the company in this important emerging space for a future that could include central bank digital currencies.
- Crypto could enable access to new capital and liquidity pools through traditional investments that have been tokenized, as well as to new asset classes.
- Crypto furnishes certain options that are simply not available with fiat currency. For example, programmable money can enable real-time and accurate revenue-sharing while enhancing transparency to facilitate back-office reconciliation.
- More companies are finding that important clients and vendors want to engage by using crypto. Consequently, your business may need to be positioned to receive and disburse crypto to assure smooth exchanges with key stakeholders.
- Crypto provides a new avenue for enhancing a host of more traditional Treasury activities, such as:

Enabling simple, real-time, and secure money transfers
Helping strengthen control over the capital of the enterprise
Managing the risks and opportunities of engaging in digital investments

- Crypto may serve as an effective alternative or balancing asset to cash, which may depreciate over time due to inflation. Crypto is an investable asset, and some, such as bitcoin, have performed exceedingly well over the past five years. There are, of course, clear volatility risks that need to be thoughtfully considered.

Two primary paths for using crypto The first question to ask when considering using crypto in your company's operations is: Do we hold crypto on our balance sheet or simply adopt crypto-enabled payments? To determine the right path for your business, you need to make a careful determination of the best fit for your business objectives. Consider the potential benefits, drawbacks, costs, risks, system requirements, and more. The following sections will provide some broad considerations around two different paths as your company embarks on its crypto journey.

Enabling payments: "Hands-off"

Some companies use crypto just to facilitate payments. One avenue to facilitate payments is to simply convert in and out of crypto to fiat currency to receive or make payments without actually touching it. In other words, the company is taking a "hands-off" approach that keeps crypto off the books.

Enabling crypto payments, such as bitcoin, without bringing it onto the company's balance sheet may be the easiest and fastest entry point into the use of digital assets. It may require the fewest adjustments across the spectrum of corporate functions and may serve immediate goals, such as reaching a new clientele and growing the volume of each sales transaction. Enterprises adopting this limited use of crypto typically rely on third-party vendors.

The third-party vendor, acting as an agent for the company, accepts or makes payments in crypto through conversion into and out of fiat currency. This may be the simplest option to pursue. And, in all likelihood, it may cause relatively few disruptions to a company's internal functions, since the "hands-off" approach keeps crypto off the corporate balance sheet.

The third-party vendor, which will charge a fee for this service, handles the bulk of the technical questions and manages a number of risk, compliance, and controls issues on behalf of the company. That does not mean, however, that the company is necessarily absolved from all responsibility for risk, compliance, and internal controls issues. Companies still need to pay careful attention to issues such as anti-money laundering and know your customer (AML and KYC) requirements. And, of course, they also need to abide by any restrictions set by the Office of Foreign Assets Control (OFAC), the agency that administers and enforces economic and trade sanctions set by the US government.

Enabling payments: "Hands-on"

If a company is ready to go beyond simply enabling crypto payments and intends to broaden crypto adoption within operations and the treasury function—in other words, to go the "hands-on" route—it may potentially find a significant increase in benefits, as well as in the number of technical matters to address.

To ready itself, the corporate treasury might consider several preliminary issues, including:

- What does the company want to achieve by adopting the use of crypto?
- What steps has the treasury taken to acquire the necessary know-how to receive, monitor, and manage a crypto payment?
- Does the Treasury think the company should maintain custody of the crypto itself or outsource that to a third party?
- What measures are in place, or what thought has been given, to possibly investing in crypto as a new asset class?
- What adjustments does the Treasury foresee in anticipation of the eventual issuance of digital currencies by central banks?

Treasury will be inextricably involved in these decisions, and the changes they require, since:

- Traditional treasury groups maintain the financing relationships for the company (e.g., banking groups, investment partners, third-party working capital providers).
- The Treasury determines which types of banking and financial services—now in a potentially broader and bolder digital asset ecosystem—corporations will need.

There are two paths a company can follow when embarking on a broader "hands-on" adoption of crypto:

- Use a third-party vendor or custodian to maintain custody of the crypto on a blockchain and provide wallet management services that facilitate the tracking and valuation of the crypto assets.
- Integrate crypto into the company's own systems and manage its own private keys.

Most companies currently using crypto in a "hands-on" fashion use a third-party custodian. Given that tendency, we will examine this path in greater detail. The second approach, self-custody, presents more complexity and requires deeper experience. Moreover, if the company follows this route, it will likely have greater accountability for the work supporting its transactions. That said, much, if not most, of what follows will also be applicable to companies that self-custody.

Crypto is held and managed in digital wallets. An appropriate wallet structure is fundamental to a successful crypto treasury function. Many entities have adopted a multitiered structure whereby "hot wallets" are used as operational accounts, as opposed to "cold wallets" that are used to store value. For entities with high volumes of transactions, tracking the details of those transactions can become a significant pain point.

Tracking usually entails keeping detailed records of the date and time of acquisition of the crypto, value and assigning of basis, etc. In many cases, entities have chosen to convert to stablecoins to reduce the uncertainty related to price fluctuations of traditional crypto assets. (For more on the use of these wallets and the importance of basis tracking, see Corporates investing in crypto and "Tax treatment of crypto payments" and "Tax treatment of crypto expenditures" below.) For example, that conversion may entail moving from bitcoin to a stablecoin such as USD Coin (USDC), Gemini Dollar (GUSD), or Paxos Standard Coin (PAX).

Once the swap is done, the crypto is more readily usable for traditional bank and treasury transactions. That includes disbursements or executing on-demand payments now facilitated with real-time transparency for pertinent parties, without the delays and costs of traditional wire transfers. While "cold wallets" should be used for long term storage, "hot wallets" are important for several other reasons.

Notably, they can capture current information about crypto status for immediate operational purposes. They also help with forecasting the multiple purposes to which crypto will be put or stored.

In addition to supporting immediate operational goals, "hot wallets" facilitate:

- Rapid payments
- Transfer of funds in crypto
- Short-term savings and investments that approximate the benefits of money markets

Most significantly for the treasury function, "hot wallets" provide the appropriate clarity and visibility to help Treasury determine or adjust the right allocations of crypto on an ongoing basis.

Tax and accounting treatments for enterprises using digital assets depend on a number of variables. So, let's begin with a few general statements. They can help set the stage for an overview of the main questions and potential issues companies may need to address.

- Using crypto as a means of exchange, in a manner similar to fiat currencies, presents particular accounting challenges. Crypto is generally considered an intangible asset. It may well warrant adjustments or additional disclosures to P&L and cash flow statements, among other financial documents.
- For tax purposes, the use of crypto for receiving or making payments may be treated as a barter transaction (a nonmonetary exchange of goods, services, or nonfinancial assets between two counterparties).
- The volatility of the price of the crypto through the transaction life cycle plays a significant role in determining the value of a digital asset. That's the case for both accounting and tax.

Tax treatment of crypto payments

For tax purposes, the value of crypto is established at the time the payment becomes fixed and determinable. That may correlate with the time the crypto is received rather than when the contract is entered. For tax, as is typically the case for barter transactions, the company must establish the readily ascertainable fair market value of the asset at the time of receipt. That value is typically arrived at by using a block explorer or value aggregator.

Here are some important considerations to weigh:

- The company must record the time and value of the crypto at the time of receipt or when the company has dominion and control.
- That information can enable the company to establish and track the tax basis for the crypto. That way it can be referenced once or used or exchanged for another crypto or fiat.

- It is important to follow a systematic and rational methodology for establishing and tracking bases and for keeping detailed and appropriate documentation. This becomes critically important when under examination by the IRS, a state, or international taxing authority.
- When the company receives the crypto payment, it must track it carefully to calculate any applicable sales tax, indirect taxes, value-added tax, goods and services tax, etc. At present, most governmental authorities only accept payment in fiat currency. Hence, the company must maintain robust documentation and an appropriate process. That can help ensure that the amount of the crypto collected for indirect tax can be then remitted in fiat currency to the appropriate agency.
- An embedded mark-to-market derivative, used by the accounting department to track the value of the crypto, may or may not be recognized for tax.

Tax treatment of crypto expenditures

When the company uses crypto for an expenditure, there are typically two legs to the transaction: (1) the gain or loss on the crypto (which may well have changed in value); (2) the expense or payment itself. The value of the crypto at the time of the transaction likely determines what is called the "more readily ascertainable fair market value" for this barter transaction. And, as with revenue, it is important to keep appropriate documentation on how the value was determined. Again, here's what's different from using fiat currency to pay a vendor: Crypto triggers a gain or loss on the underlying asset used in the transaction. Accordingly, it's imperative that the company create appropriate wallet structures that enable segregated tranches of crypto.

By maintaining segregated tranches and wallets, each with their tracked basis, the company can determine exactly which digital asset it is using and how much gain or loss it is triggering with the transaction. It is also important to determine the character (ordinary or capital) of the gain or loss triggered upon usage of the crypto.

Payroll

The use of crypto for payroll purposes requires several careful considerations:

- Processes are needed to track withholding taxes for W-2s properly.
- Most tax authorities don't accept crypto. The company will need to remit fiat currency for the payment of withholding taxes. That may then require additional exchange transactions (crypto for fiat currency) before remittance.
- Crypto does not generate conventional bank statements. So, provisions need to be made to capture and disclose all pertinent transaction-level details. The company will need to supply that information to the IRS, state, or foreign tax authorities.
- Public companies have additional considerations for officers remunerated with crypto (e.g., proxy statements).

Accounting for crypto payments

As with regular business transactions, revenue recognition rules govern the accounting for digital assets received by a company as payment from a customer in return for a company's goods or services.

- When the company agrees to receive or accept consideration from a customer that is not cash, the value of that noncash consideration is determined at the contract's inception.
- Consequently, the price of the good or service that drives the recorded revenue is determined up front based on the value of the crypto. Subsequent changes in the value of the crypto do not alter the amount ultimately recognized by the company as revenue. That's the case regardless of the timing of the delivery of the underlying good or service to the customer, all in accordance with the terms of the contract or receipt of the crypto.
- However, the changes in value of the crypto asset may still require separate accounting (for example, as an embedded derivative), just outside of the revenue accounting rules.

• For example, if a sports fan purchases a full-season suite for one bitcoin today, then the team may need to consider:
  o What value of bitcoin will drive the revenue recognized?
  o How is the volatility of the price of bitcoin accounted for?
  o How should this be presented on the financial statements, and what disclosures are required or needed?

Accounting for crypto expenditures

When crypto is used as payment for expenses, the single transaction has two legs: the sale of the crypto and the receipt of a service. That second item, in turn, is accounted for as the noncash consideration on the sale of the crypto:

• The company will have to assess whether the other party is a "customer" per the accounting rules or a "noncustomer," which will determine the financial statement line item presentation.

• The valuation of the crypto and pricing of the transaction are set at the same time (the time at which the contract is entered into or otherwise becomes legally enforceable).

• The company will need to consider valuation of the transaction price and whether that should be based on the value of the service received or the value of the crypto asset sold. Some valuation concepts, such as fair value, even have their own accounting standard and rules. They may need to be applied and may require unique considerations when applied to crypto assets.

• If the company is exposed to price variability in the crypto asset after establishing the price or value of the transaction, this exposure may require separate accounting. Oftentimes, that may come in the form of derivatives.

• If the crypto asset used in the transaction is recorded on the books at a value different from the value for which the company was able to transact that crypto asset, that may result in realisation of the value differential.

By using crypto for payments, the company is now deploying noncash assets in a cash-like manner. What does that imply?

- The accounting department will need to flag for the tax department the realisation of any gain or loss precipitated by the use of the crypto.
- The company will need to adjust its cash-flow statement for the noncash payments and provide additional disclosures to explain the accounting for the crypto transactions

Financial statement disclosure:

Use of crypto in the business is a new frontier for many companies. It may affect the company's financial results for many of the reasons discussed above. A company using crypto in a "hands-on" fashion should carefully consider:

- The required disclosures for the relevant accounting principles that were applied for the transactions
- Whether the required disclosures are sufficient and adequate. Do they paint a clear picture of the company's strategy regarding its use of crypto for users of the financial statements? Can a reader of the financial statements piece together the information to understand the use of crypto in the business?
- How the use of crypto affects the company's cash flows and operations
- Related risks to the company's business. That includes the impact crypto has, or may have, on the company's current and future financial results, as well as the related risks to which the company may be exposed as a result of using crypto assets in the business.

As with investing in crypto, the use of crypto requires appropriate due diligence of third-party vendors and custodians. An understanding of the broad issues begins with the various risks underlying the crypto themselves.

Companies need to grasp all of the potential implications of how a given digital asset operates, its terms and conditions, and the asset's related market vulnerabilities or volatility.
From an IT angle, companies also need to have a clear appreciation of:

- The blockchain systems the vendor or custodian uses to support each digital asset and network
- How the associated governance system works, since it may have a direct bearing on the resilience of the protocol

This type of due diligence review can also help to identify the types of events for which companies should be monitoring and how to be prepared.
When considering specific issues related to the vendor or custodian, the company should pay close attention to the kinds of risks typically associated with the receiving/disbursement of crypto to ensure that:

- The vendor can assist or oversee the customer in inputting the correct crypto address.
- The address is not entered incorrectly or maliciously replaced by malware in the customer's browser or by a "man-in-the-middle" attack.

Many vendors and custodians provide additional security for transaction execution and use techniques, such as a small test transaction, to confirm addresses before executing the main transaction.

Companies then need to:

- Ensure the payment is sufficiently confirmed on the blockchain by the vendor or custodian before confirming receipt with the customer and before taking actions that would be difficult to reverse, such as shipping a product.
- Make certain the company staff responsible for processing and confirming the receipt of the crypto transactions is segregated from the staff processing refunds. The staff responsible for processing and confirming should not be authorised to make outward payments from those receiving crypto addresses.

- Create customer-specific deposit addresses. This can help with subsequent accounting. But it is also helpful in avoiding publicising the company's crypto address, which may be an invitation to attackers.
- Establish the customer who is responsible for the fees associated with processing the crypto transaction. Normally, fees would be the responsibility of the payer or customer. But the company has a vested interest in receiving a fast confirmation and not making fees a sticking point.

A leading practice for beginning to address these issues would be to obtain and review SOC 1 and/or SOC 2 reports of any potential vendor or custodian. Consider how the vendor or custodian's practises and processes align with and map to those of the company, and note any adjustments teams may need to make.

06 Project Results and Vision

Define your future

The journey to financial freedom starts with the right decision, THIS DECISION! Only by doing so can you discover and access incredible projects to help you accomplish all your financial goals.

A PRACTICAL SOLUTION FOR ASSET SAFETY AND MULTIPLICATION

The real question is: How can you really protect and multiply your assets using the tools at your disposal? Well, in 99% of the cases the answer is: "We have no idea". The banks are not protecting your assets, actually in the case of creating an economy deposit, the most commonly used tool, the multiplier is so small that it doesn't even cover the inflation rate. Will you put your money in a mutual investment fund? Well even so the conditions are on a LONG, LONG TERM with difficult circumstances, and high administration costs and keep in mind that most of them have a minus investment return which means you actually lose money. And, keeping in mind that inflation affects this money as well, the return is even lower.

The answer is simple. There is no real solution in the "reality" nowadays, because nobody wants you to earn money. You are only a tool. Go to work, save money, and get into debt - and this is not the answer.

This is why THE CIRCLE was born. After we did all these and beyond, tested everything on our own capital, we found some real solutions that have worked for us for more years now and we can put this at your disposal. This is why we put everything on the blockchain because transparency, fairness, equity, and collaboration are this century's values.

Keep in mind at the same time that for a small investor, usually, it is hard to identify good opportunities or to know where to search for them. And, for all of you who have the knowledge to spot such opportunities, here comes another problem: you need a large capital to access those opportunities. And if you have both the knowledge and the capital, you need to invest all your time to monitor the market so you know what to invest in.

Our solution is simple: we know that together we are stronger and at the same time, we have the possibility of facilitating access for everyone even in the markets in which large sums are circulated. And we do all these for you based on our own strategy with proven results.

If you too can't find answers to our proposed questions then we are here to give you the support you need.

EVERYTHING IS UP FOR GRABS

WIN-WIN, this should be the main goal of any business nowadays. But we can control only what we can control, so based on our years-long experience in the business world, nowadays the decision to create a PROJECT with GUARANTEED GROWTH is only possible thanks to the mindset and tools we have discovered by taking risks others wouldn't and making things others were afraid to do. Now the real problem is that the crypto world and crypto terms are hard because there is no school for it, as there in reality is no school for finance itself.

Asset management is allowing us to access bigger and more profitable opportunities for us all.

GROW YOUR CAPITAL

Everyone can take risks, but not everyone will win. It's a game until you learn to turn things in your favour. If you want what the 1% has, you should do what they do. Based on this we have created this SAFE capital growth management system, which is based on the ETF's idea of firstly protecting the capital no matter what against whatever the market is doing. Our pieces in the system have been tested well before being implemented and never on your money. The tests have been run on our capital and THE CIRCLE's CAPITAL is only benefiting from the ones that work so we can comply with our number one commitment in the Whitepaper and Smart Contract - 100% CAPITAL Protection. We created batches of investments on short, medium, and long term with different multipliers, about which you can learn more down below, in detail, in the "HOW WE DO IT" section.

DIVERSIFY YOUR PORTFOLIO

Let's get this right: We also know that we can't stop anyone from taking on big risks although we say all the time: BE CAREFUL WITH THE CRYPTO INVESTMENTS, so you should risk only what you can risk and think about THE CIRCLE as a retirement fund with a high reward or a savings fund that can allow your future dreams or your family to have something - even if you lose some, earn some.

THIS IS HOW WE DO IT

THERE IS NO SUCCESS WITHOUT A PLAN AND A SYSTEM WORKING FOR YOU. WHAT WE ARE DOING IS PROVEN OVER YEARS OF TESTING AND HARD WORK, LATE NIGHTS IN ORDER TO MASTER THE NUMBER ONE GOAL IN ANY FINANCIAL PROJECT, AND THAT IS 100% CAPITAL PROTECTION.

LONG TERM ALWAYS WINS-WEALTH OVER RICHNESS

There is a huge difference between RICHNESS and WEALTH and what we all should target are not HIGH-RISK GAINS but STABLE GENERATIONAL WEALTH GAINS. There is a huge difference although it is hard to notice it, and everyone who is successful will tell you to secure the gains 1st and safely multiply them afterward. Always remember that high capital attracts high gains, the small capital is always at risk.

TOTAL ACCESS

Yes, you will know everything, all the time. Not only that we will communicate all our moves but everyone can ask and will get a totally transparent view of what we are doing. Starting day one we will make constant announcements, constant meetings with the members of our closed CIRCLE, and we will be accountable for everything because one thing we can promise you: THE CIRCLE IS HERE TO STAY!

EXCLUSIVE COMMUNITY ADVANTAGES

We know how important the community is, so this is why, TRUST US, our goal is to make it big on the short, medium, and long term and we don't like to promise, actually this is the only place you will read it but we have many, and we mean MANY, surprises in place for honourable trustworthy members of our community. Your life will never be the same.

NEVERENDING OPPORTUNITIES

We know that, in order for the crypto world to get to the next level, the next chunk of the market (and that is the early mass and late mass) needs to learn the crypto world. With this being very difficult on its own, our solution is not to wait for the market to be ready but to get the crypto world ready for the market. You don't know what a DEFI is? an NFT? a CRYPTO EXCHANGE, etc.? Well, you don't need to right now, but you can extract the benefits out of it, RIGHT NOW, and with THE CIRCLE, there is no real excuse. You can tell your friends you are an investor because you got a powerful team and a powerful community on your side. YOU HAVE UPGRADED ALREADY, The Circle is not only a business, it is a family.

When you are young you do anything in your power to challenge the establishment. But when you got older you learn how to master the system itself and make it work for you, so you become the establishment. In over 10 years of multiplying our own funds, we have decided to create a tool for everyone. Why now? Well because of the craze and hype created with all these crypto opportunities we noticed that there are more losers than winners in this newly created world. So our plan is to switch the balance and allow people to take advantage of these new financial tools even with no experience needed and with no staking required.

BLOCKCHAIN-BASED FINANCIAL SOLUTIONS

We are using blockchain technology as an enabler for modern-day opportunities, for the smart contract capabilities, and most important for fund transparency. Blockchain offers us what no other system can in the current financial world. As soon we saw the mass applicability of the blockchain, we knew that with the right tools and the right people it is only a matter of time until it will create financial new opportunities, fair and strong, not only speculative and manipulative but to bring REAL VALUE in one's life: MEET DEFI! MEET The Circle.

MODERN BUSINESS MODEL

Everything we do is LIGHT YEARS AHEAD. Since we are all early adopters of the crypto world, we can brag now with years of experience. If you talk to our experts you will notice the level of skill and knowledge they have and all these are being used to YOUR advantage as well. The more time you spend in the market, the fewer secrets the markets can have so we know most of the time all of the current and future opportunities inside out, and when others think about doing it is most of the time later than it should generate profits. We are ONE, we are THE CIRCLE!

2022-another crisis? 2008, 2001, 1987....1939, Well this is not something new! It is a system that is bound to repeat itself over and over again, with no respect for your actual gains or generational gains from which the new generation will never profit! Why? Because this is a trap, this is a trap of knowledge and THE CIRCLE will give you access to what the 1% already know and take advantage of for decades. The enabler is the blockchain and our years of experience and believe the US when we are saying that the crisis only gets more and more deep. And keep in mind that in many countries we have already experienced HYPERINFLATION that basically erased everything we managed to put aside and this happened to tens of countries over the years, big and small, no difference whatsoever.

07 Roadmap

2022

Q1

- Project idea & implementation
- Advisors added
- Tokenomics
- Whitepaper released
- First partnerships
- Web platform
- Telegram community
- Provides KYC/AML checkups
- Forex trading
- Crypto trading

Q2

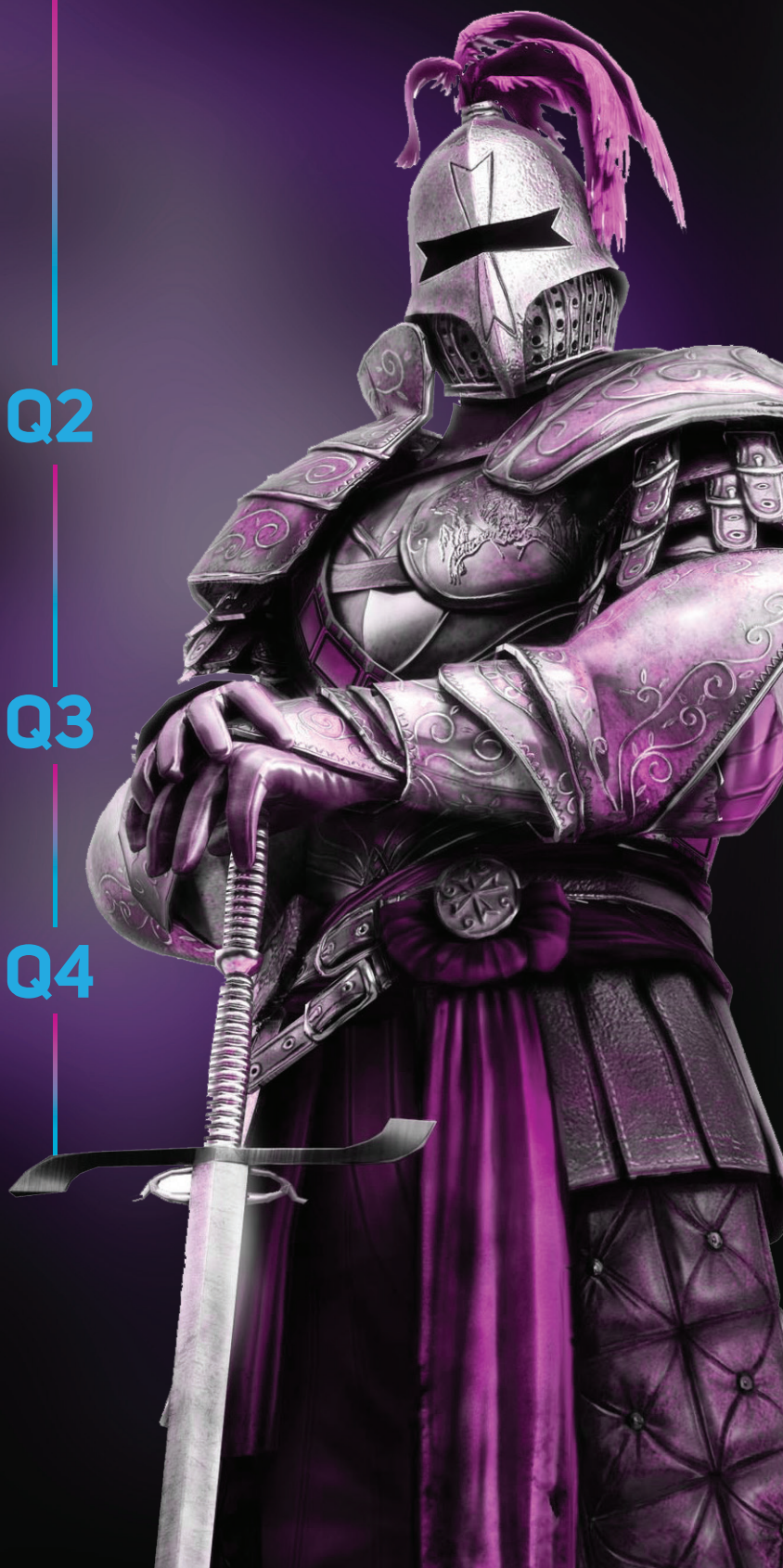
- The first strategic round
- Establishing the sales targets
- Frontend & Backend platform development
- Exchange integration
- Crypto wallet integration
- Online meetings & podcast

Q3

- Crypto spot
- Staking
- Elaborating the first financial reports

Q4

- Earning report for the first year
- NFTs launching
- Scouting for traditional businesses
- Ending the participation in the global pool
- Profit sharing among participants



DEFINE YOUR FUTURE

2023

Q1

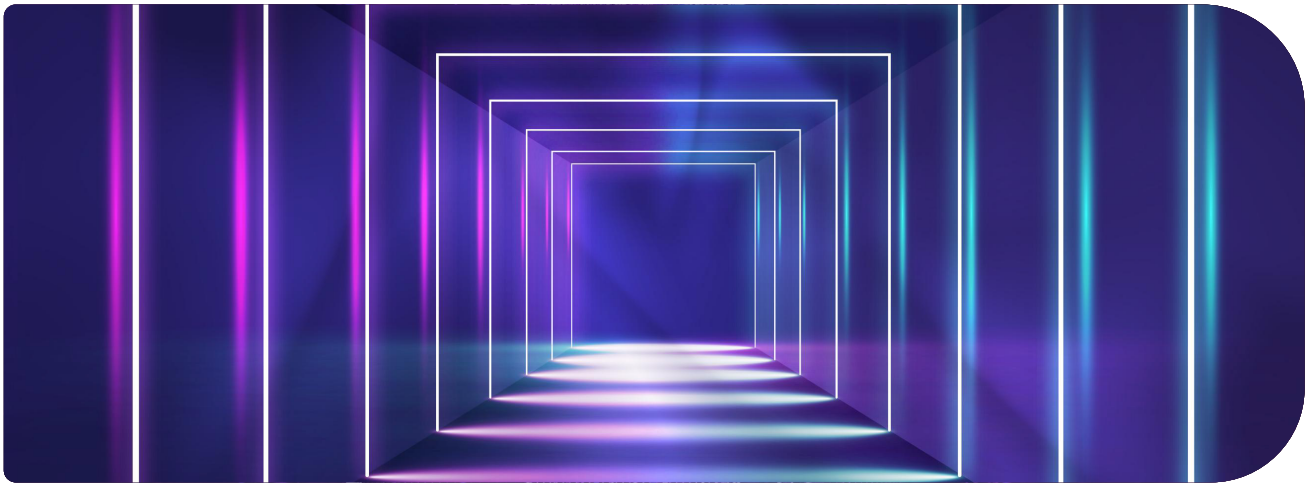
- Meet & Greet event
- Traditional businesses added to the portfolio
- Launching our own first marketing company

Q2

- Adding real estate companies under The Circle
- Expanding traditional businesses portfolio
- Gaming

THE CIRCLE

08 Perspective and recommendation



Fiat money appeared in the 11th century but it became predominant during the 20th century. At first, every dollar was tied to a certain amount of gold, which gave value to the money. In 1971, Richard Nixon decided to decouple the US dollar from gold, which now means money is intrinsically valueless and its worth is established by the governments. Basically, fiat money refers to any money that is not guaranteed by a commodity.

For the people, these monetary systems we use worldwide mean we have no power of decision over what happens with our money at any moment. If the social and political environment changes, so does the value of our money. It has happened before and will continue to happen to see how our money values less day by day because of what takes place in the world.

To be in control over the monetary systems, governmental institutions use regulatory tools which impact the market, usually in a negative way. In time, such financial instruments made people all over the world lose everything they had in their bank accounts in a matter of months or even weeks.

With constantly growing consumerism, financial crises happen more and more often. As there are a handful of people controlling the market, they also influence the financial game on a large scale and this leads to

hyperinflation, massive devaluation, and last, but not least, financial crises. Moreover, the value of fiat money is established by the relationship between supply and demand and the status of the issuing government. In addition, this type of money gives central banks greater control over the economy because they can control how much money is printed.

Another downside of this currency is that the more it is printed, the higher the inflation goes, resulting in hyperinflation.

Hyperinflation is, in short, a rapid, out-of-control, excessive increase in the price in a market, which means a lower purchasing power of a monetary unit. Basically, with the same amount of money, you can buy fewer goods and services because of inflation.

The main difference between inflation and hyperinflation is that the second one implies a devaluation of a monetary unit with over 50% per month. Looking at things in perspective, such inflation rates lead to a negative growth rate for a country's economy.

Even though we might not be aware at any moment of the inflation rate and the changes that take place in the financial market, we are constantly impacted by it.

For example, if you choose to keep your money in a deposit, not only don't you benefit from an increase of capital, but you lose money as days pass by. Even though it sounds counterintuitive, the yields on deposits have been almost unchanged since March 2020, when the average value worldwide was 0.06 and is expected to rise up to 0.11 per year. Still, with an average inflation rate of 2.5%, your money loses its value the longer you keep it in the deposit.

If you are still unsure of how inflation works, let us give you a more practical example:

Back in the early 90s, US $100 had the same buying power as the US $218.84 in December 2021. Now, because of the pandemic, the effects of financial changes are even more prominent. This pandemic showed us that we have to be prepared for what is worst, especially from a financial point of view. With countless job losses, health emergencies, or large unexpected expenses, we must know at any time we don't depend on a

single stream of income.
In order to understand how the market works and moreover to know what is best for you and your finances, you need financial literacy. Unfortunately, no school in the world teaches us how to protect our capital, how to create an investment portfolio and diversify it, how to use banking systems in our favour and why it is important to keep an eye on the economy to know what to expect in the future.
We are being taught to save for a house, to have a 9 to 5 job to pay the bills, and to follow some monetary rules that nobody explains to us. Still, generation after generation we are more and more affected by these financial tools without even having the chance to understand how to create a better future. Moreover, to have all this knowledge to help you make a better financial decision you would need years to research and understand how the market works so you make the best move for yourself.

What if there was an alternative?
The Circle is born out of the need for a change, so you can decide for yourself how you protect your capital.
With a team of experts in numerous domains and after years of experience, we have decided to use all our knowledge gathered in fields such as traditional business, crypto, Forex, stocks market, ETFs, to create an opportunity for normal people to have access to projects reserved only for a handful of rich people until not so long ago.
Thanks to The Circle, even those with small capital can now enter the market and benefit from opportunities otherwise unavailable because they didn't have the money required; therefore, through The Circle, everyone can protect and grow their capital by using modern financial tools with proven results.
We've come to realise, after all our experience, that we have to embrace new business models if we want to protect our assets and crypto makes it easy for all of us to have access to projects we could only dream of in the past because it is a constantly growing domain. In fact, even though it is in its late early adopters phase, only 3.9% of people worldwide own

cryptocurrency at this very moment. In fact, there is just a matter of time until this domain will increase even more in value – it is expected that by 2023 the market cap will hit $23.3 billion. Being active in this domain for many years now, we've understood that it is much easier to transform a field into a much more easy-accessible one than trying to make the people understand its depth.

The team behind The Circle is made up of businessmen, investors, and crypto experts, with many years of experience, so we have the proper knowledge to understand how we can transform this domain into an accessible and beneficial tool for everyone. Being first of all practitioners, we have researched the market and did our best to find the most suitable solutions. By doing so, we've come across and studied even Robert Kiyosaki's financial advice and draw conclusions from them. In addition, apart from our experience, we've consulted with people that were game-changers at a national and international level and understand better than anyone else how the financial markets work and what is financial security at its core. After a long, long period of research, market analyses, and studies, we've come to one conclusion: this domain needs to be approached using the KISS principle (keep it simple, stupid) we've got from Robert Kiyosaki.

By simplifying the crypto domain so anyone can access it, we maximise its potential for every person that joins us. Instead of letting your money be affected by inflation and other regulatory tools, we offer you a means of protecting your capital without having to work for it. With all these regulatory tools, you lose money both in the short and long term. What we do is create a safe alternative so you can grow your capital by a fixed percentage monthly. Moreover, you can withdraw your money anytime you want, in a maximum of 24 hours processing time and with no fees applied (apart from those applied by the wallet provider).

With The Circle, you don't have your money blocked, you just make it work for you as long as you want and get to withdraw it any time you want.

When we've created The Circle, we had 3 things in mind, based on our experience and our knowledge of the market:
a) if you have the capital to invest and diversify your portfolio, you don't have the opportunities,
b) if you have the capital and the possibility to invest, you don't know the market and don't have the knowledge to identify the proper opportunities,
c) If you have both the capital and the opportunities, you don't have the time to research the market and grow your capital by yourself.

Our solution is simple: instead of letting you do everything by yourself, with your own capital, we use all our expertise and the power of our combined capital to access even markets otherwise unavailable, for example, the real estate market. This way, you have a chance to take part in projects that can offer real growth and enter even launchpads, liquidity pools, or farming yields so you can be rewarded even though you by yourself don't meet the requirements to participate in such projects. No more borrowing money to access a new project, no more hoping for an increase in the standard interest rate to your deposit account because you now have the chance to build wealth and protect your capital at the same with proper risk management, everything through our tools.
And what is more, the sooner you join us, the stronger your capital protection is as you have a unique opportunity to grow your capital and even outperform inflation.

Why now?
We've been where you are right now and we are where you want to be in the future. This makes us the perfect choice for you and your capital.
After so many years in the market and tens of businesses we've created and successfully managed, all the founders have the necessary resources to help you grow your capital. Because we have these and use on a daily basis these resources, being practitioners at the same time, we know and want to help you make money. And we plan to do so by multiplying what

we already do for ourselves.
By trial and error, we've come to understand the secret of success. We've realised many people lack financial education, as there is no school to teach us how to manage our financial resources to create stability in the longer term and protect our savings, nor how to manage or identify the opportunities we encounter.
Until we've had a clear view of all of these, it took us many years, periods of time no one has at their disposal to invest in making research and studying these ever changing markets if they have a job or a family. Even though our road to success was a bumpy one, with many obstacles in the way – failures in the traditional business market, lost money in the process, difficulties in the sales market, scams in the crypto field, and so on – we've overcome all of these and learned from our mistakes.
And what is more important, we've come out winners, as we've developed new strategies, new tactics to succeed in our activity and to get the results we've wanted.
But it doesn't have to be the same way for you and this is why The Circle was created. Our know-how is based on domains like a traditional business, marketing, sales strategies and team development, business consultancy, and many more adjacent fields and so we came to a point where our money makes more money for ourselves. Still, we continue to be active in our business and you can watch everything we do on our Social Media profiles, as we are 100% transparent.
The whole concept behind The Circle is built on transparency, as we understood in practice that there are hundreds of specific terms really hard to understand by somebody who is not active constantly in a domain and this applies to crypto, real estate, Forex market, and so on. How can you then make a proper financial decision if you don't even get the chance to understand how it works?
Moreover, the biggest players in the market have access to technologies we bet you didn't know exist, such as tools for monitoring day by day the number of customers for certain brands in order to know if they should buy or sell on that specific day. They base all their financial decisions on

watching and analysing trends and have an advantage when making a move. And this is just an example of how it works. If we compare this to our day-to-day lives, let us tell you that there are investment funds that buy an entire building just to rent the space and generate profit on a constant basis. The difference between the average man and them? They understand (because they have access to more in-depth information than us) that a property like that has to produce money, otherwise it is just a liability. And this can be seen in the statistics about the poverty rate: in Europe, for example, the countries with the biggest rate of homeownership have the lowest quality of life. Instead of blocking your money with such a decision, you can choose differently and make your money produce more money for you. And this becomes even more important in times like these when a bubble appears every 8-10 years.

Getting back to where we first started, we want to offer you the means to access these markets without having the knowledge (or the huge amount of money) needed to access them. And how can we do so? By acting together, because together we are stronger and our capital is bigger. Together, we can grow our capital without choosing projects with high risk, high risk, because the bigger the reward is, the higher the risk. Instead, we opt for a constant, moderate growth we know for sure will help us in the long term. Moreover, we manage to protect our capital even in times like these, when real inflation hits almost 10%.

The Circle is not for those who are impatient for projects with an x40 gain chance as there is an x40 chance to lose too. Instead, we are here to help you protect your capital, because this is the first and most important rule for everyone who wants to make real money.

Mission

The Circle is a project based on every one of us' needs because we've

understood what we lack to achieve financial stability, and more importantly, how to overcome this.
Our mission is to help you do the same using all our knowledge and experience because we know for a fact that you have no guarantee if you use the traditional means of so-called "capital protection". The most popular mutual investment funds practice incredibly high taxes on withdrawal, most of the time even 100%, hidden commissions and oblige you to keep your money locked for several years in a row. In addition, the growth rate barely covers inflation.
Our mission is to benefit, together, the most from present opportunities in the market and we can do so only by the power of our combined capital. We are not here to charge you secretly (in fact, the only fee on our platform is the one required from the wallet provider for wallet-to-wallet transactions), nor to make you lose money in the process.
All of our activity is 100% transparent at any moment and the more of you join us, the bigger our chances to achieve all of our financial goals are. The stronger we become, the more opportunities will unveil to us, as big players in the market don't go searching for projects to invest in, they are searched for.
With financial power comes great opportunities and also we get access to deals otherwise unavailable. Or did you think that, let's say, the token price for crypto, no matter which one, was the same when it was first listed? Somebody knew, even before everyone else, that a certain token will have a minimal value and will multiply hundreds of times its initial value in just a couple of months. And such examples exist in every domain: real estate, traditional business, NFTs, etc.
This is the kind of access we want and will have for The Circle and opportunities like this one become available only If we stand together for our financial goals.

Vision

Our vision is to offer everybody, as fast as possible, the chance to enter The Circle through the 10 million tokens available, for such financial

opportunities so that once the actions in our roadmap are completed, everybody knows us and offers us new opportunities.
Therefore, we want to make The Circle the biggest game-changer for normal people using their capital to create the future they want by accessing exclusive projects.

The steps towards success

How are we going to achieve all of our financial goals and help you protect and grow your capital at the same time?
By using our own system that combines different kinds of projects: low risk, low reward and long-term returns, medium risk, medium reward, and medium long-term returns, and high risk, high rewards and rapidly earnings.
By combining all these three types of investments, we generate capital in a short time and at the same time, we make sure we benefit from long-term income and financial security at the same time.
The mechanism is simple: in the beginning, we will choose projects that offer rapid returns, so we can generate profits from the very beginning. All the profits will be generated through trading and, in time, other projects will be added. Because it is no good to keep all your eggs in one basket, we will diversify the portfolio by investing in different projects, and at the same time, we will diversify the margin profits. Apart from trading, we will generate profits from investing in stocks, ETFs, traditional businesses, and, later on, real estate.
We are here to stay, and the businesses and domains in which we invest prove it!

09 Reference on the blockchain

The Circle Smart Contract :
https://bscscan.com/token/0x4b306182580a1d2471f4088bfb638ee289c47c7e?a=0x4b306182580a1d2471f4088bfb638ee289c47c7e

10 Documents of reference

Partners Agreement:
https://thecircle.business/partners-agreement.pdf

Privacy Policy:
https://thecircle.business/privacy-policy.pdf

Cookie Policy:
https://thecircle.business/cookie-policy/