HEYÓKHA
BROTHERS

The long wave

A wise man never knows all, only fools know everything.

-South African Proverb-

4Q 2020

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Heyokha's growth

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The long wave

Tipping point?

Millennials sucker-punching hedge funds, cryptocurrency becoming a "safe haven", and tech driving decentralisation: these developments would have sounded like science fiction only a year ago. In this report we (try) approach these and other new trends with an open mind to see if they call for a change in conviction and action. But not after revisiting the concept of "growth mindset", which we believe is key for investment success.

One year in: uncertainty abounds

It's been a long and eventful year since COVID-19 was declared a global pandemic by the World Health Organization. The international vaccine rollout has brought hope for a swift return to normal – taking financial markets to new highs. However, significant downside risks remain, such as a possible resurgence of the virus (or new variants thereof), delays in vaccinations, and financial strain caused by high debt levels and weak growth.

While we don't intend to ruin your mood, it is good to realise the following. The consensus view among epidemiologists seems to be that COVID-19 will become endemic: with us forever. Experts are unsure about the virus' trajectory, as it depends on many factors. As such, only time can tell how things will play out and we should be wary about being too optimistic about a near term recovery.

.. but many secular trends remain.

However, while near term developments are uncertain, some secular trends have been at play since before the pandemic and will continue to be relevant in the coming years ahead. These include: the advent of Modern Monetary Theory, tech disruption, calls for closing the gaps between the haves and the have not's, deglobalisation, demographic change, and environmental action.

We think it is fair to say that COVID-19 has accelerated developments around most of these issues. For instance, the joke is that COVID-19 has done more to lead the digital transformation in most companies than their CEOs and CTOs. Despite the short-term uncertainty, we feel that these trends could provide investors some anchors to develop their medium-term view.

We need to keep tuning our antennas to anticipate new trends

While we have been fairly accurate in pointing out the above trends, we could have done a better job at benefitting from them. For instance, we missed out on the rise of some tech stocks. Often, we invested in some, but we got out way too early (although we should not complain too hard, as value stocks provided us with a good ride in the first quarter of 2021).

This brings us to the topic of learning. Being resilient or having a resilient fund/corporate structure is not enough to perform with excellence. We need to be actively openminded, looking out for what events mean to us and how we can learn and benefit from them. It stresses the need to be in a growth mindset.

In that light, we cover some areas in this report where we think that trends may break or reverse. More specifically, we revisit (i) the old growth vs. value investing dichotomy; (ii) the relevancy of retail investors; (iii) the direction of technology; (iii) the "investability" of cryptocurrency; (iv) the inflection points in U.S. leadership; (vi) the prospects for real yields; (vii) commodity super cycle (again); and (viii) the return of the attractiveness of the ASEAN market.

That's a lot to cover. In order to prevent this report from becoming a book, we aimed to keep each topic short. We expect to expand on a few themes in our next report, such as on the future trend of the 3D's: (ongoing) Digitalisation, Democratisation, and Decentralisation.

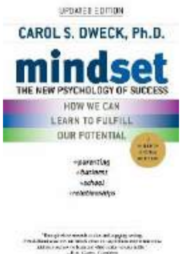
Enter the Matrix

If the theme of Digitalisation, Democratisation, and Decentralisation sounds like "the Matrix" to you then don't worry, the Wachowski Brothers (now sisters, by the way) got you covered.

About twenty years after blowing our minds with the film *The Matrix* (1999), they are now working on the fourth instalment in *The Matrix* franchise. While the plot is not known yet, expect some creative inspiration of possible futures akin to Blackmirror.

Nevertheless, we hope that the key points you take from this report are (i) that 2021 will be a pivotal year with many trend breaks; (ii) that this requires investors to be actively openminded and try to figure out the potential implications of these trend breaks (i.e., try to adopt growth mindset); and (iii) that while investors can benefit tremendously from adopting growth mindset, it requires conscious effort in everyday life.

Resilience and growth: it's all in the mind



After decades of research, Stanford University psychologist, Carol Dweck discovered a simple but ground-breaking idea: the power of mindset.

In her classic book "Mindset: The New Psychology of Success", she showed how success can be dramatically influenced by how we think about our talents and abilities.

Dweck summarised, "*Individuals who believe their talents can be developed (through hard work, good strategies, and input from others) have a growth mindset. They tend to achieve more than those with a more fixed mindset, i.e., those who believe their talents are innate gifts. This is because they worry less about looking smart and they put more energy into learning.*"

According to Dweck, believing that your qualities are carved in stone — fixed mindset — creates an urgency to prove yourself over and over. The fixed mindset makes you concerned with how you will be judged; the growth mindset makes you concerned with improving.

The good news is that we can change our mindset.

For example, a study in the United States showed that a short (less than one hour!), online growth mindset course improved grades among lower-achieving high school students.[1] This is great because, as we show below, having a growth mindset can also improve investment success.

Growth mindset unlocks investment success

Adopting a growth mindset can improve our lives in many aspects, such as becoming better partners in a relationship, better parents, better managers and of course, better investors.

We found there are at least three reasons why growth mindset is an important concept for investors:

Improve our stock picking - companies with growth-mindset leadership perform better. Thus, recognising such leadership in companies can improve our stock-picking game and improve our investment outcomes.

For instance, a five-year study by Jim Collins in 2001 suggests that the stock returns of companies run by growth-mindset leaders were more likely to rise than those of rival companies.

Improve our forecasting skills - research has revealed that the best forecasters have growth mindset. For instance, in the book "Superforecasting: The Art and Science of Prediction", the authors conclude from analysing forecasting tournaments that the strongest predictor of becoming an exceptional forecaster is

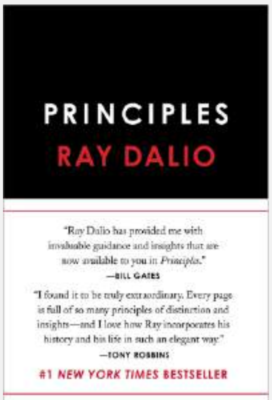
[1] Yeager, D.S., Hanselman, P., Walton, G.M. et al. (2019).

the degree to which one is committed to belief-updating and self-improvement.[2]

Improve our team's decisions - when our own (analyst) team operates in growth mindset, forecasting performance will improve dramatically. For instance, in Superforecasting, it was found that the so called "superteams" do well by avoiding the extremes of groupthink and by fostering mini cultures that encouraged people to challenge each other respectfully, admit ignorance, and request help.

Adopting a growth mindset is especially important for us at Heyokha because we have a broad/flexible investment mandate. Such mindset guides us in how we should change, how we should look at new areas and finetune our investment strategy.

Ray Dalio, an investor with a great growth mindset



Ray Dalio, already one of our superheroes, rose further in our esteem when we read his book Principles. It is amazing to see how he applies lessons from psychology to improve the decision making in his organisation. Here follows an abstract from his book that clearly shows his admirable growth mindset.

Dalio writes: *"In retrospect, my crash [of his investments in the 80's] was one of the best things that ever happened to me because it gave me the humility I needed to balance my aggressiveness.*

I learned a great fear of being wrong that shifted my mind-set from thinking "I'm right" to asking myself "How do I know I'm right?"

And I saw clearly that the best way to answer this question is by finding other independent thinkers who are on the same mission as me and who see things differently from me. By engaging them in thoughtful disagreement, I'd be able to understand their reasoning and have them stress-test mine. That way, we can all raise our probability of being right.

In other words, I just want to be right – I don't care if the right answer comes from me. So, I learned to be radically open-minded to allow others to point out what I might be missing."

You don't get growth mindset by proclamation. You move toward it by taking a journey.

In the wake of Dweck's findings and the success of her book, "growth mindset" has become a buzzword among educators and business leaders, even working its way into mission statements.

However, after publishing her book, Dweck discovered that people often confuse growth mindset with being flexible or open-minded or having a positive outlook — qualities they believe they've simply always had.

She calls this a 'false growth mindset'. The point is that your "process" needs to be tied to learning and progress. It's also false in the sense that nobody has a growth mindset in everything all the time.

Dweck clarifies that everyone is a mixture of fixed and growth mindsets: sometimes we're in a growth mindset, and sometimes we're triggered into a fixed mindset by what we perceive as threats.

These can be challenges, mistakes, failures, or criticisms that threaten our sense of our abilities. As such, a "pure" growth mindset doesn't exist; it is a lifelong journey. Below is the summary of the journey that Dweck proposes.

The journey to a (true) growth mindset:

1. **Embrace our fixed mindset** – We need to acknowledge that we are a mixture of both mindsets. Even though we have to accept that some fixed mindset dwells within us, we do not have to accept how often it shows up, and how much havoc it can wreak when it does.

2. **Become aware of our fixed-mindset triggers** – Understand in what situations your fixed-mindset "persona" makes its

[2] Tetlock, P. E., & Gardner, D. (2015).

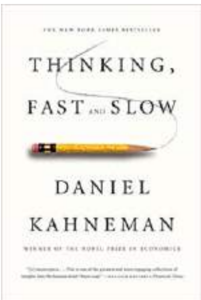
appearance. As we come to understand our triggers and get to know our persona, don't judge it. Just observe it.

3. **Give our fixed-mindset persona a name.** Yes, a name. Perhaps we might give it a name we don't like, to remind us that the persona is not the person we want to be.

4. **Educate our fixed-mindset persona**. The more we become aware of our fixed-mindset triggers, the more we can be on the lookout for the arrival of our persona.

   Don't suppress it or ban it. Just let it do its thing. When it settles down a bit, talk to it about how we plan to learn from the setback and go forward. Take it on the journey with us.

We feel that Dweck's emphasis on the journey is a key point.



After reading publications such as "Thinking Fast and Slow" by Daniel Kahneman, investors ought to know that psychological biases rank amongst their worst enemies (and source of opportunity) and that we need to actively keep working on ourselves and implement systems to prevent falling prey to them.

Dweck made an interesting comment regarding this: "Maybe that's why Alcoholics Anonymous tells people they will *always* be alcoholics – so they won't become complacent and stop doing what they need to do to stay sober. It's a way of saying, 'You'll always be vulnerable'".

Our journey is ongoing

Dweck explains that when people with growth mindset receive new information, they are attuned to its implications for learning and constructive action: What can I learn from this? How can I improve? How can I help my partner do this better?

At Heyokha, we are committed to asking ourselves such questions, as reflected in the original meaning of the word "Heyokha". Just to remind the reader: among the native North American Lakota people, the Heyokha is a contrarian and satirist, who speaks, moves, and reacts in an opposite fashion to the people around them.

They ask difficult questions, look at things in a different way, and say things others are too afraid to say. We chose that name because we believe it reflects the very essence of what we aspire to be. To live up to it, though, is not always easy.

Our challenges.

What we know – Peter Lynch is famous for saying that you should "invest in what you know". We agree to this statement as long as we can also agree that what you know is fluid.

So, to implement this mantra in the right way we should expand what we know, so that our investable universe grows along with that. This is a challenge, because when opportunities show up in areas where we are not comfortable, our fixed mindset rears its ugly head.

That's when we start identifying ourselves with what we know today (like: "nah, let's not invest in China, because we are ASEAN investors" as if we were born that way). Applying a growth mindset, we should say that we don't know enough *yet*.

This creates a tension, as we obviously don't have enough time to learn about everything. But it does mean that we should always be expanding what we know. Prioritising is the challenge here.

Groupthink – the danger of groupthink lures in any organisation. While groupthink is an international phenomenon, we feel we are especially vulnerable to this given many of our team members are from Indonesia.

The Indonesian culture is very conducive to groupthink as relationships, harmony, and hierarchy play a large role in Indonesian business culture.

For example, subordinates may feel uncomfortable to speak up and bring bad news or true information. In such culture, when leadership claims that the sky is green, his subordinates may concur. This obviously limits the potential to improve investment decisions by aggregating many views.

We try to mitigate this by hiring analysts who dare to speak up, but this does not solve the problem entirely. We are still exploring how we can best improve on this — some potential solutions will be outlined in a grey box.

Can we be too flexible?

We consider our flexible investment mandate as one of the core strengths of our investment funds. However, this year we realised the importance to set limits.

In our 3Q 2019 report, we drew a parallel between investing and biology. Just as generalist species are better able to adapt to sudden changes in their environment due to their diversified diet, we figured that generalist investors with a diversified investment diet should also be better positioned to adapt and thrive in the current socio-economic climate —as compared to their specialised counterparts.

A second key success factor that we identified was flexibility. The flexibility to move "habitats", i.e., to update your investment strategy if it is no longer working.

However, due to our flexibility we made choices that came back to bite us in the rear last year. One of them being an overdose of ASEAN small cap value stocks, which tend to have a somewhat less liquid nature.

While our flexible mandate allows us to invest in small cap stocks, the very act of investing in small cap actually made our portfolio less flexible.

We are not complaining today, as our value stocks have been showing great performance in the first quarter of 2021. But, we have been warned to operate within certain bounds.

Were we not aware that small cap stocks pose a risk? Of course, we were. Just like we know eating too much sugar is not good, it's still tempting to eat cookies. Perhaps our focus had been too much on the macro trends and stock picking, and too little on portfolio and risk management.

So, in early 2021 we have been expanding our team in our Hong Kong office to add to our strengths in those areas. Guess it is easier to stay away from the cookies when "Mom" is watching.

Adding a new layer to our strategies

Being flexible does not mean being directionless. But having directions alone does not guarantee returns. Investments are made with an implicit assumption that the market will realise the same opportunities that we have identified earlier and will gradually come to a consensus.

The process of such market consensus making dictates fund flows and hence returns. It is therefore important to understand the market cycle for any strategy to work.

The obvious improvement in our investment process after the strengthening of our team in Hong Kong is the creation of a new layer to how we look at our portfolio, by allocating our investments to different strategy buckets.

Not only do these strategy buckets constantly remind us to ask ourselves if our investments are relevant to our hypothesis, but they also help us to dissect the performance of our portfolio and pinpoint areas to improve.

We asked ourselves questions such as: will the growth to value rotation finally happen, have retail investors turned market cycles, should we treat crypto as an alternative investment, would the US still lead the global economic landscape, would there ever be real yield again, has the commodity supercycle just begun, would ASEAN markets become hot again.

We believe we have some answers and what we need to figure out is how to position ourselves. And that's where our strategy buckets come in.

When deciding how each strategy bucket should be emphasised, we also look at cycles. Generally speaking, a peak of a cycle will have us avoid or reduce certain exposure while a trough of a cycle warrants taking higher risks.

Common cycles that we observe include economic cycles, earnings cycles, liquidity cycles and valuation cycles. Not only are there hypothesis as to why we expect the cycle may change, we also look a vast amount of data points. So, a strategy defines what we are looking for while a cycle analysis reinforces our positioning decision.

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How to prevent groupthink when making investment decisions

Groupthink explained

In 1972, psychologist Irving Janis popularized the term groupthink. According to Janis, "members of any small cohesive group tend to maintain *esprit de corps* by unconsciously developing a number of shared illusions and related norms that interfere with critical thinking and reality testing."[3] This can lead to catastrophic decisions.

For example, groupthink can happen when the group gets carried away with its brilliance and superiority. Groupthink can also happen when a leader punishes dissent. People may not stop thinking critically, but they stop speaking up. That's why it's critical to adopt growth mindset when important decisions are made, writes Dweck.

Groups can outperform experts

Evidence suggests that with the right structures and culture in place, group and team decision-making can be far better than that of even the wisest and most expert individual.

For example, Psychologist Tetlock compared how teams performed in forecasting tournaments in comparison to individuals. The teams which got some training in teamwork where on average 23% more accurate than individuals.[4] This means there is a lot to gain by getting it right.

Ways to prevent Groupthink

So, what steps can you take to "de-bias" your (investment) team's decision-making? Psychologist Cass R. Sunstein and Reid Hastie propose various ways to make "dumb groups smarter".[5] Here are some of them:

1. Silence the leader – When leaders refrain from expressing their views at the outset, team members are less inclined to self-censor contradicting views and information.
2. "Prime" critical thinking – When people are given a "getting along" task, they shut up. When given a "critical thinking" task, they are far more likely to disclose what they know. The key is for the leader to promote disclosure of all information, critical thinking and thoughtful disagreement.
3. Appoint a devil's advocate or a "red team" – ask some group members to defend a position that is contrary to the group's inclination (the devil's advocate) to discipline and strengthen collective reasoning.

   Or take it to the next level by creating a red team whose job is to construct the strongest possible case against a proposal or a plan. Such team should sincerely try to find mistakes and exploit vulnerabilities and be given clear incentives to do so.
4. The Delphi method – This approach involves several rounds of unanimous estimates (or votes) followed by group discussions until the participants converge on an estimate. The anonymity insulates group members from reputational pressures and thus reduces the problem of self-silencing.

Two other ways we came across were promoted by Psychologist Gary Klein and fund manager Ray Dalio:

5. Premortem - Psychologist Gary Klein proposes to conduct a *premortem*.[6] This is an exercise in which team members purposefully imagine that the project they are planning just failed and then generate plausible reasons of its demise. The very structure of a premortem makes it safe for team members to identify problems.
6. Weighted decision making - Ray Dalio shows in his book *Principles* that he goes to great lengths to prevent Groupthink. He believes that thoughtful disagreement by independent thinkers can be converted into believability-weighted decision-making that is better than the sum of its parts.

   For this purpose, they use an app in meetings that provides a polling interface and a back-end system of believability weighting. This allows the team to make decisions based on voting results – both on equal-weighted and believability-weighted scores.

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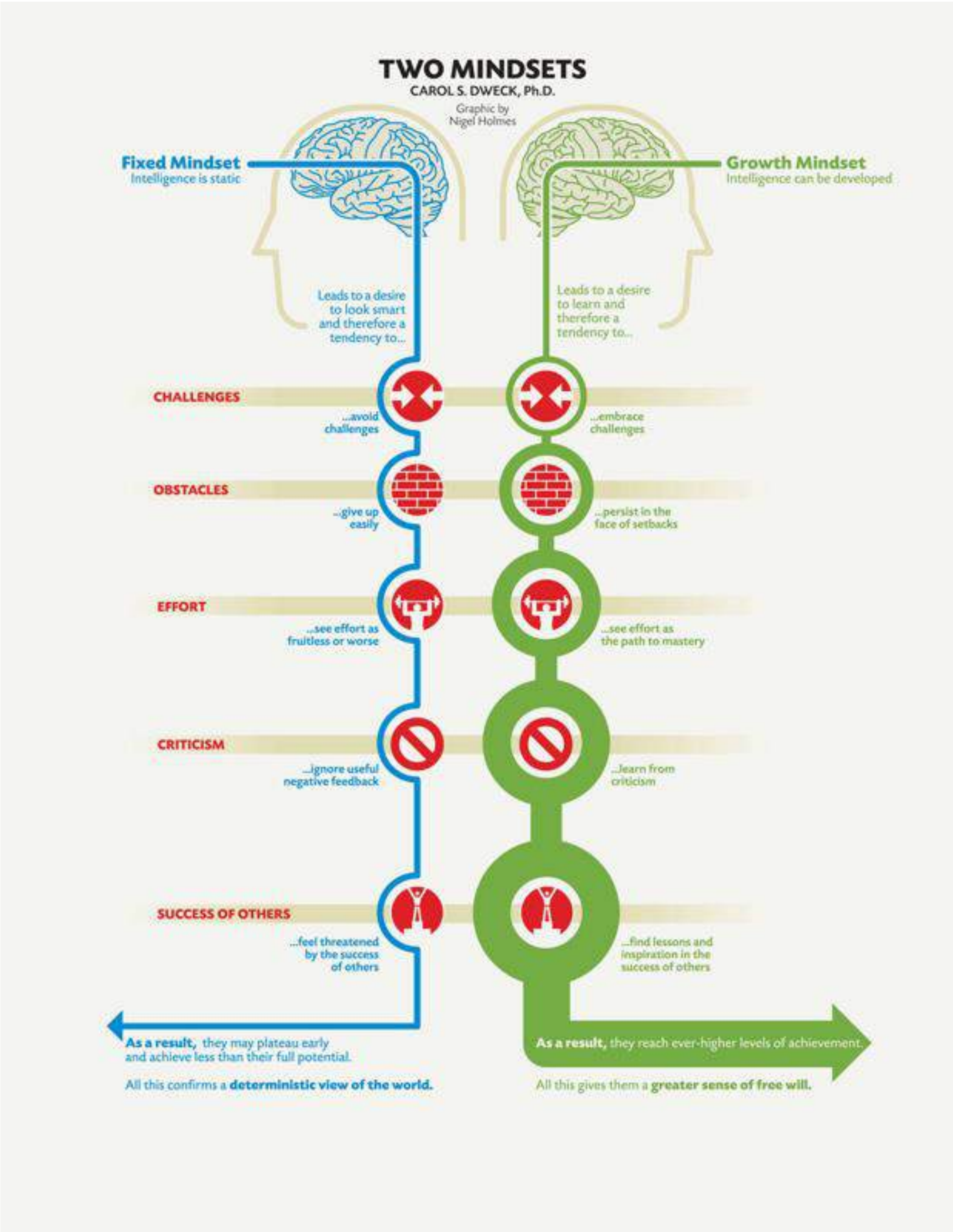
[3] Janis, I. L. (1972).
[4] Tetlock, P. E., & Gardner, D. (2015).
[5] Sunstein, C. R., & Hastie, R. (2014).
[6] Klein, G. (2007).

After the discussion on the benefits of having a growth mindset in this section – and the effort needed to move towards it – we will now highlight a few themes where we believe trend breaks may happen (or might have happened already). Themes that require us to embrace a growth mindset to fully appreciate the potential consequences of such trend breaks.



Trends that may break or reverse due to

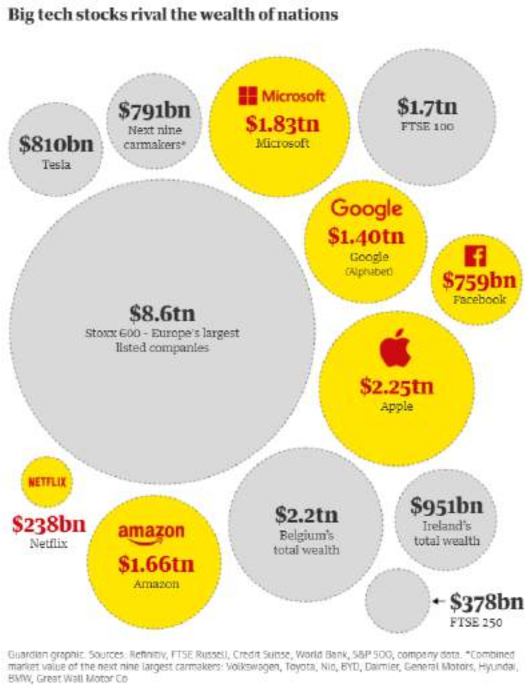
1. The trend of tech-driven centralisation will reverse, due to politics and decentralised network technology

Tech entrepreneurship has led to a winner-takes-it-all game, centralising wealth and power

- The digitalisation of the 3Cs: Communication, Content, and Commerce has been the dominating force shaping the new ecosystem (new economy) for the last two decades and has also led to a concentration of power and wealth.
- This centralisation trend has led to an oligopolistic market with distant market leadership. Most market share will be owned by the leader with a significant gap to even the 2nd biggest player.

  Case in point:

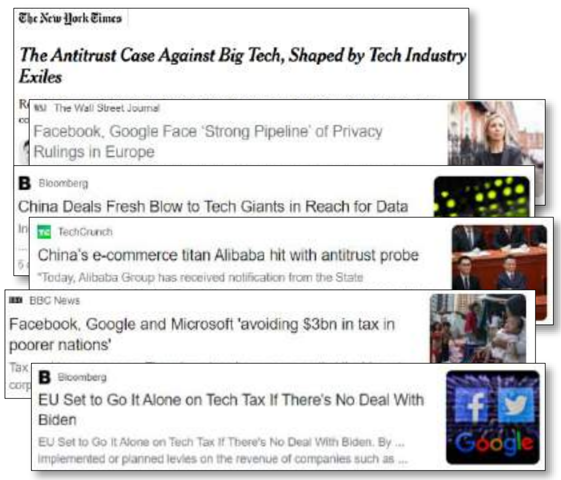
  According to eMarketer (2020), Amazon's market share in the U.S. e-commerce retail sales was 38.7%, followed by Walmart at 5.3%. The four biggest players combined control 52.4% of the whole market.
- The winners are getting stronger every day by gaining access to more data, enjoying network effects, and accessing financial resources through their high market valuation. The tech leaders also enjoy exceptional free cash flows, adding to their moats.



Big Tech is wealthier than many nations
Source: Guardian

Legislators and ex-insiders are attempting to break the Big Tech as they see threats lurking

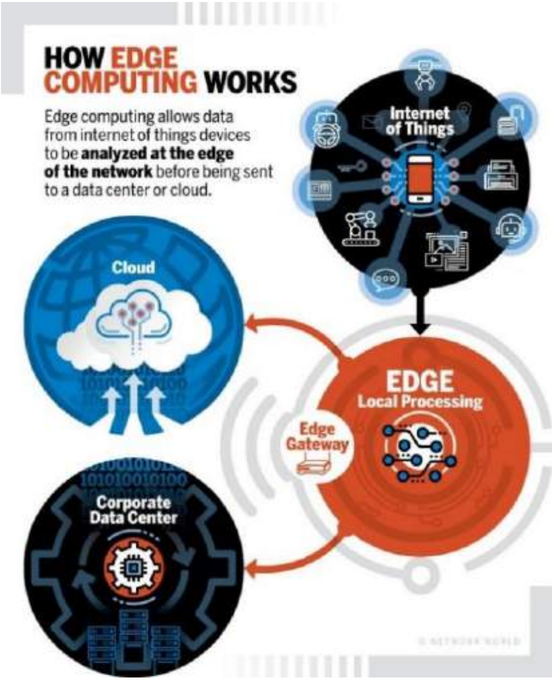
- Abundant access to data, financial resources, and the ability to manipulate public opinion have instilled fear that tech firms would soon be more powerful than governments.
- Consequently, governments and ex-tech insiders have started to fight the Big Tech. The three biggest issues that are being addressed are:
- Anti-trust: More power and market share accumulated by the winners leave no room for other competitors.
  - Data privacy: Data tapping is everywhere and monetised for profit.
  - Tax: Leveraging their borderless presence, many firms exploit tax loopholes, creating an unfair advantage.



Storms are brewing over tech companies.
Source: Bloomberg

Blockchain and edge computing emerge as a substitute ecosystem for the existing centralised system

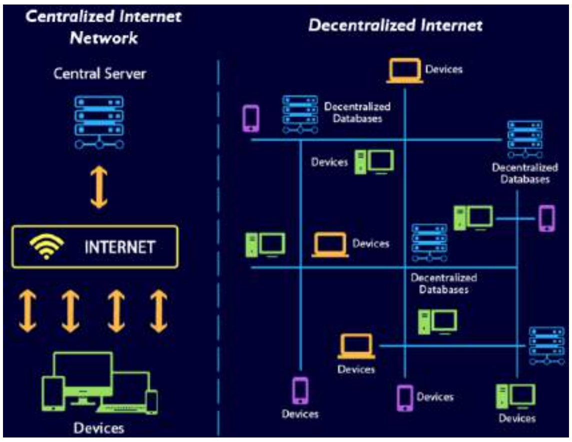
- In a centralised system, users depend on an authority to give a 'blessing' for transactions. This authority is almighty to dictate behaviour, set rules and regulations, and monitor our actions.
- Blockchain technology is an enabler of permissionless transactions by using a distributed ledger system where everyone in the network shares the database simultaneously. The data being shared through the network is represented by a 'token'. Its core value proposition: user privacy, reliable records, and frictionless low-cost transactions.
- Edge computing provides decentralised data processing by computing near the users. Its core value proposition: 1) Only relevant data need to be shared with the central network. 2) Lower latency due to closer proximity to the user.
- The wide adoption of blockchain technology and edge computing could imply that the Big Tech would be fed less data. Certain AI-optimized and machine learning programs could be adversely impacted by such trend.



Edge computing is a new design for a decentralised computing system with lower latency and better data privacy by performing the computation near the users
Source: Network World

With accelerating digitalisation and the rising prominence of decentralised network technology, decentralisation and democratisation will be the next forefront of tech for the coming decades

- The rising efforts to curtail Big Tech's power and the increasing prominence of decentralised network technology could reverse the centralisation trend.
- Therefore, we believe that in the upcoming decades, the innovation trends will shift from the digitalisation of the 3Cs towards the 3Ds. The 3Ds can be shortly explained as follows:
  - Digitalisation acceleration due to COVID-19 will be the background in the new normal.
  - Decentralisation will occur as blockchain and edge-computing emerge as a substitute for the current centralised system. Blockchain is going to be the backbone for decentralised finance. Meanwhile, edge computing will be the key for decentralised internet networks.
  - Democratisation is going to be the consequence of decentralisation. Also, accelerating digitalisation will cap the power of authority and distribute the power back to the users.



The decentralised architecture will limit the current centralised-authority power
Source: 101 Blockchains

The arrival of central bank digital currency (CBDC) levels up the playing field for the government to control the money

How digital RMB looks by the CCB's Digital Yuan Wallet
Source: China Briefing

In late 2020, China became the first mover for sovereign digital currency. The arrival of central bank digital currency (CBDC) is potentially a game-changer for authorities to control the money supply. It acts as an enhancer for surveillance, circulation control, and frictionless transactions.

The main problem of a paper-based fiat currency is the difficulty to trace the money's whereabouts once it has been released to the public. By using digital currency, the authority could perfectly track money flows and consumptions.

For example, in the case of helicopter money, now government could specifically 'add' the account balance of those who are deemed worthy and set an expiry date for its consumption. However, it also means that the authority now could perfectly monitor, track, and even intervene in personal wealth directly.

We wonder whether this attempt to centralise money control could be a reason for people to pursue the 3D tech trends instead.

2. Besides gold, cryptocurrency should be considered for your portfolio

Our growth mindset journey on cryptocurrency

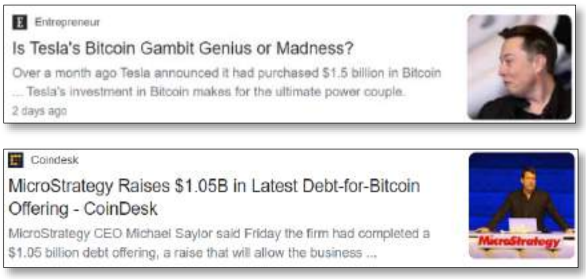
Ever since its inception, there have been concerns about cryptocurrency investment traits due to its volatile nature and questionable credentials. In our journey to maintain growth mindset, we have studied the matter again.

While we still believe that cryptocurrency is a risky and volatile asset, we now see value in its diversifying properties. The year 2020 is the absolute game-changer for Bitcoin and many cryptos to be considered as a storage of value. Has the crypto paradigm shifted?

Cryptocurrency is being considered as an alternative store of value (more in appendix 1)

Cryptocurrencies' value proposition:

1. Limited (known) supply and can only be mined.
2. As a virtual asset, it's more portable and durable.
3. Cannot be confiscated by the government.
4. Can be used as a store of value, and it has started to be accepted as a form of payment.
5. Tradable on exchanges, as are futures contracts on the CME, similar to gold.
6. It has a network effect – the more people use it, the more valuable it becomes.


Entrepreneur
Is Tesla's Bitcoin Gambit Genius or Madness?
Over a month ago Tesla announced it had purchased $1.5 billion in Bitcoin ... Tesla's investment in Bitcoin makes for the ultimate power couple.
2 days ago

Coindesk
MicroStrategy Raises $1.05B in Latest Debt-for-Bitcoin Offering - CoinDesk
MicroStrategy CEO Michael Saylor said Friday the firm had completed a $1.05 billion debt offering, a raise that will allow the business ...

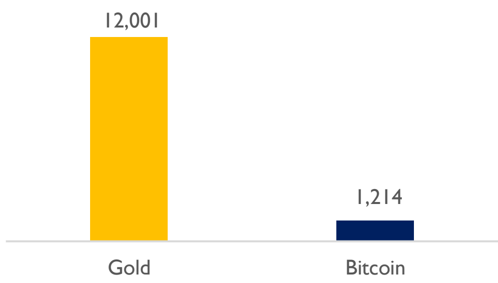
What does MicroStrategy and later Tesla's move mean for Bitcoin? Is it a game-changer?

Some people even consider cryptocurrencies to replace gold as a safe haven. We don't think it will happen overnight, neither do we think that gold and bitcoin are mutually exclusive

- Crypto's potential as digital gold is there, but the total replacement of gold is unlikely in our view.
- We compare gold to Bitcoin as the biggest cryptocurrency:
  - Bitcoin market cap is only a fraction of gold.
  - Bitcoin price is very volatile given this new asset has only 12 years of history, and most people are still unfamiliar with it.
  - Many of the attributes are still experimental and not fully tested.
  - The regulatory angle is still unclear at the moment, meaning that large institutional investments will only be gradual.

Bitcoin market capitalization is only a fraction of gold

Gold vs. Bitcoin market capitalisation in billion USD

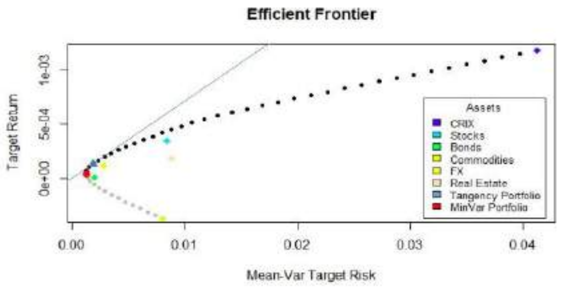


Bitcoin (US$ 57,799/BTC), the biggest cryptocurrency market cap is still a fraction of gold (spot at US$ 1,722/oz) as of March 11th, 2021
Source: Bloomberg, World Gold Council

Cryptocurrencies behave differently than traditional asset classes and increase the reward-to-risk ratio, owning both gold and crypto increases the portfolio reward-to-risk ratio

- Gold outperforming equity in a high-risk perception environment makes it a good portfolio diversifier.
- Cryptocurrencies also behave differently than traditional asset classes and could increase portfolio adjusted return; hence, it could be a good diversification tool.
- A study by Olha Holovatiuk, found that a 2-3% portfolio allocation to Crypto increased the reward-to-risk ratio by 7%-10%.

  (Read more: "Cryptocurrencies as an asset class in portfolio optimization" by Olha Holovatiuk – Central European Economic Journal Vol. 74, Issue: 54)



Cryptocurrencies (CRIX) – high risk, high return asset, behave differently than traditional asset classes
Source: Olha Holovatiuk (2020)

Financial institutions have shifted their stance on cryptocurrencies

Cryptocurrencies such as bitcoin are programmable assets. The very fact that it is a decentralised peer-to-peer system means that its value increases exponentially when more people join it (i.e. the network effect). Understanding the internet, e-commerce, and payment, there is no reason why financial institutions do not see the potential implications. As predicted by game theory, the value to join the network outweighs the alternative. And it is no surprise that one by one they are taking action, despite their initial immature impression.

3. Value stocks have a decent chance to outperform growth stocks in the upcoming inflationary environment

Our growth mindset journey

For the last fifteen years, value stocks have been underperforming growth stocks. This could either be seen as proof that value investing is dead, or that a reversion to the mean is imminent. With the brewing inflation as the catalyst, we believe that glory days of value investing are near, and its outperformance will begin with the closing of the unprecedented relative valuation gap between growth and value stocks.

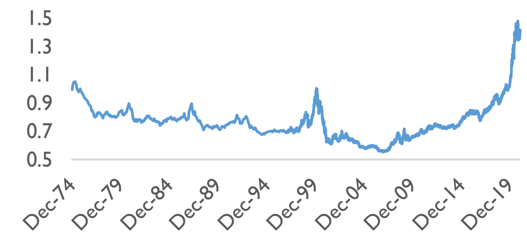
Growth stocks have outperformed value stocks over the last fifteen years

- Value investing worked well in the past, such as in the post-dot-com bubble era. However, for the last decade, value has underperformed growth.
- This has led some investors to wonder whether value investing is still relevant in the new economy era.

  (For more details, please read on page 28 about our take on the "*Something of Value*" letter by Howard Marks of Oaktree Capital.)

Value stocks have underperformed growth stocks for more than a decade.

MSCI World Growth relative to MSCI World Value Index



Source: Bloomberg


THE BUSINESS TIMES

Is value investing dead?

Value investing is dead: Peter Hargreaves' stark prediction for 2021

'Old economy' will not return to previous highs

Investment Week | David Brenchley

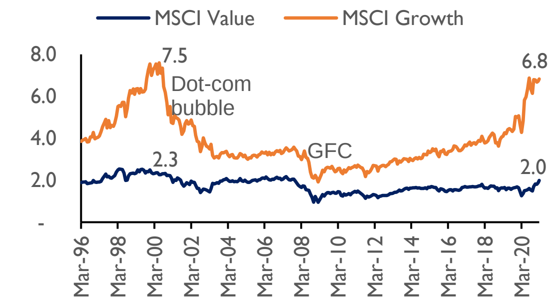
19 Jan 2021

Value stocks will outperform if the unprecedented valuation gap between growth and value stocks would reverse

- Value stocks valuation multiple gaps relative to growth stocks is nearly as high as the dot-com bubble.
- MSCI Growth Index P/B multiple is at 240% premium to value P/B multiple. This is compared to around 60% premium a decade ago.

Value stocks have underperformed growth stocks for more than a decade.

MSCI World Growth and Value Index price/book multiple



Source: Bloomberg

The rising inflation expectations and yields could be the potential catalyst for a reversal in growth-value performance

- The U.S. inflation expectations are on the rise, breaking a decade of low-level inflation expectations. The rising inflation expectations are putting upward pressure on interest rates.
- Case in point: During the high CPI inflation era in the U.S. in the 1970s, value stocks significantly outperformed growth stocks by 9% annually. Value stocks earned 6.6%, meanwhile, growth stocks lost 2.4% annually in real terms.

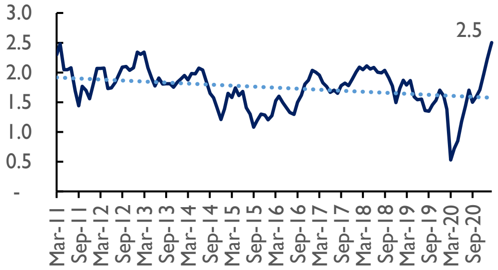
There are two reasons which could explain the outperformance of value stocks in an inflationary era:

- The rise of nominal interest rates hurts high-multiple growth stocks more than value stocks. It reduces the present value of projected future cash flows. The more distant the cash flow is, the more severe the impacts will be.
- Value stocks tend to be more asset-heavy. As such, during a period of high inflation, their cost structure is less volatile. A big component of their cost is fixed, so less sensitive to inflation. This trait is the opposite of growth stocks.

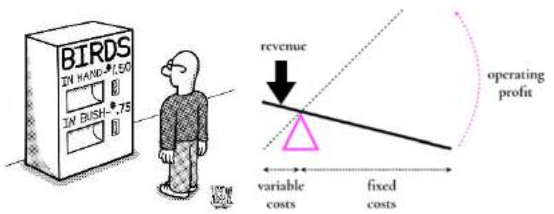
  In this context, the value-commodity stocks are especially attractive. Inflation enhances their earning power, and they are currently trading at low multiples of book value. The brewing inflation favors the out-of-favor value stocks.

U.S. Inflation expectation is near-decade high

U.S. Expected Inflation (5Y Gov't Bond Breakeven Rate, %)



Source: Bloomberg



A bird in the hand is worth two in the bush (left), Asset-heavy comes in handy given the operating leverage impact (right)
Source: Collin Hana (Medium)

4. The rise of retail investors: will it end in tears, or is this just the beginning?

Our growth mindset journey

Retail investors made their presence felt in 2020, accounting for larger shares of trading volumes across the globe. Such trends may have a lot of ups and downs. Some think it is a fad that will end with tears.

However, a growth mindset would consider the possibility that the current presence of retail investors could persist. We subscribe to the latter view.

We also believe that the work-from-home period during the pandemic could have instilled a longer-lasting stock investing culture, facilitated by low-cost online brokers and driven by the TINA response to the low-yield climate.

The trend of rising retail investors is widely recognised

- Surging amount of retail investors' participation everywhere. Anecdotal evidence suggests that brokerage accounts opened in 2020 tend to trade much more frequently than those opened before that year.
- Key catalysts attributed to the rise of retail investors include digitalisation, low-fee online brokers, stimulus checks, and work-from-home. The pandemic gives people time to experiment and work in their wonder.

Are the retail investors the new Mr. Market?

1/5 of the U.S. brokerage accounts were opened in 2020 from a total of **49 million** accounts. (according to Goldman Sachs)

1/3 of brokerage accounts were opened in 2020 from a total of **3.8 million** accounts in Indonesia

Stock influencers move markets as their opinions carry weight (probably more influential than sell-side analyst?), hence price discovery process will be more complex

- The price discovery process, which is market-driven, has become more complex.
- The stock influencer trend represents a decentralisation process. It is a statement to "Listen to people around us and not everything should be planned and dictated by central agents".
- With stock influencers becoming more influential, the power in the financial market is being divided.

Stock Influencers: The New King and Queen; Dave Portnoy is one of the 'new kings' in the rise of retail. Ellen May (which saw her no. of follower doubled during the pandemic) is one of Indonesia's stock influencers who became even more popular during the pandemic.

Retail investors: a fad that will go away soon or here to stay?

- The general opinion is that this retail era might end in tears.
- Some of the finest brains in the investment industry noted that many markets have entered into full-fledged epic bubble territory. The stretched valuations in many asset prices mean a lower return period ahead.
- However, some recent wins have bolstered retail investors' confidence. For instance, retail trading favorites have significantly outperformed S&P 500 and hedge funds.

"They are just doing stupid things, and in my opinion, this will end in tears."

- Leon Cooperman
CNBC June 2020

The most popular trading stocks have outperformed sharply
Source: Goldman Sachs

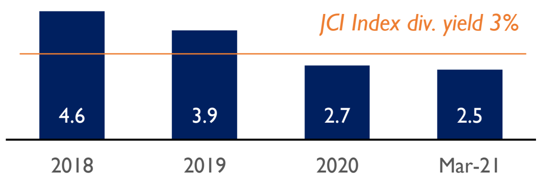
Low time deposit rate and rise of low-cost online brokers could suggest the retail trend is here to stay

We prefer to be more open-minded with regards to the retail trend for the following reasons:

- First, the bull camp has pointed out that equities are simply relatively attractive compared to other asset classes; there is no other alternative/TINA.
- Second, the advent of user-friendly apps distributed by low-cost online brokers has made the trading experience more affordable and convenient. This provides retail investors the opportunity to experiment more.
- Third, COVID-19 may have created a new stock market culture that will last in a post-lockdown world. The longer the work-from-home trend persists, the stickier the new stock investing habit is going will be.

The stock market offers a higher dividend yield as compared to time deposit

Indonesia Big-4 Banks Net Deposit Rate Average (%)



Source: Bloomberg

5. Political changes in the U.S. will shift policies towards more wealth distribution, green energy, and financial sector regulations while continuing the contest with China

Our growth mindset journey

Politics is regarded as a sensitive topic and dismissed by many because it is a complicated matter. However, as public policy can have a profound impact on financial markets, we believe that to some degree, it is imperative to reflect on the potential consequences of changes in power, such as the recent transition to the Biden presidency in the U.S.

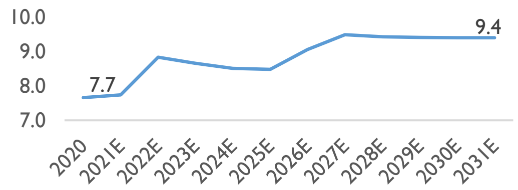
"Anyone who says they are not interested in politics is like a drowning man who insists he is not interested in water."
-Mahatma Gandhi-

Shifting gears on wealth distribution, income equality, and green energy

- In their campaign, Biden (POTUS) and Harris (VPOTUS) are promoting the followings:
    1. "Made in America" – Preferring local suppliers, investment, and innovation.
    2. Pushing for "Green New Deal" - US$ 3 trillion green and digital infrastructure plan relief for working people and the middle class.
    3. Increasing income tax.
- Yellen and Sanders hold important roles to actualise Biden's agenda through the bill creation process. Both believe that more stimulus is required to ensure a strong labour market recovery.
- They are the missing puzzle of Modern Monetary Theory (MMT), the fusion of fiscal and monetary policy. More on MMT in the next section.

Tax revenue is expected to increase as the US government is eyeing the wealthy individuals

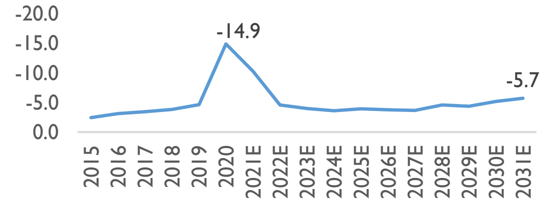
Tax revenue from individual income taxes as % of GDP



Source: US Congressional Budget Office

Even with rising tax revenue, the budget deficit is expected to stay elevated

US budget deficit as % of GDP

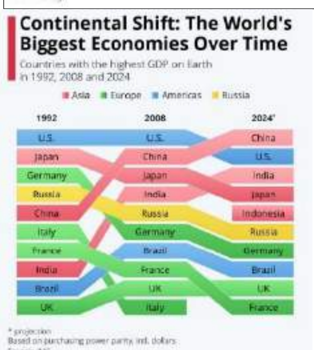


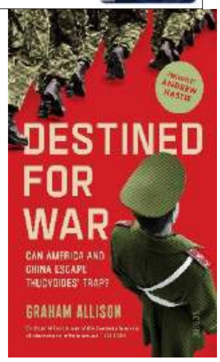
Source: US Congressional Budget Office

News flow and expert suggests geopolitical contest with China will persist, or even escalate

- Biden's presidency does not mean that the U.S. - China geopolitical rivalry is over. Instead, things are getting tenser in the South China Sea area.
- In his book "Destined for War", Graham Allison, Professor of Government in Harvard Kennedy School, argued that as China challenges America's predominance, misunderstandings about each other's intentions could lure them into a deadly trap, the Thucydides Trap.


The Guardian
US warns Beijing against using force in South China Sea
The United States has warned China against the use of force in disputed waters as it reaffirmed its view that Beijing's assertive campaign in the ...
2 weeks ago





6. Inflation, be careful of what you wish for

Our growth mindset journey

The massive QE post-GFC has failed to produce inflation in the traditional CPI sense. However, there is a lot of inflation if you look at asset prices. The non-existent CPI inflation was due to the design of QE that benefits the upper class. The surging wealth effect did not lead to higher consumption but was reinvested by the rich. Income inequality worsened.

The recent money printing is different. Stimulus checks directly target low-medium income groups who have a much higher propensity to consume. Furthermore, now we have a credit guarantee scheme that spurs commercial banks' money creation process along with the fusion of fiscal and monetary policy by MMT. With the rising commodity prices and other factors that drive up costs as a backdrop, is CPI inflation much more likely this time?

"There are decades where nothing happens, and there are weeks where decades happen."

-Vladimir Lenin-

"After the printing press, the guillotine."

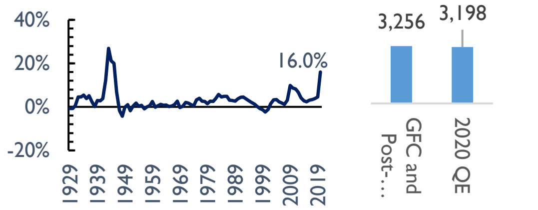
-French Revolution Anecdote-

Money is everywhere thanks to the government and central banks' counter-cyclical policies

- The U.S. budget deficits in 2020 are only comparable to those experienced during World War II. The largest prior recession deficits were only 4.4 - 9.8% of GDP.
- In 2020, the Fed's Balance Sheet registered an expansion that matched the previous entire decade of expansion.
- With government across the world pulling triggers both fiscal and monetary policy, we saw a significant increase in money supply YoY – with the U.S. leading by a landslide.

The government was all out on both fiscal and monetary policy

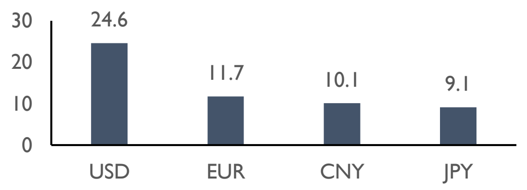
U.S. Budget Deficits % GDP (left) quantitative easing in 2020 vs. quantitative easing from 2009-2019, in US$ billion



Source: US Congressional Budget Office and St. Louis Fed

Money supply grew rapidly in 2020, as a result of fiscal and monetary policy

2020 M2 Money Supply Growth (%, YoY)



Source: International Monetary Fund

The advent of Modern Monetary Theory to push more money creation

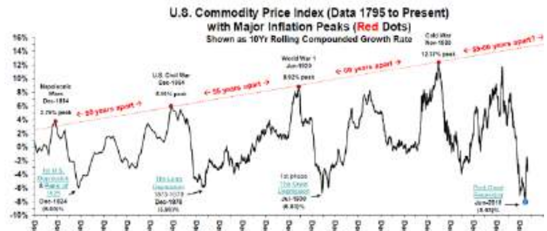
- The Fed and U.S. secretary of Treasury has shown their strong commitment to supporting the economy despite the improving outlook. Janet Yellen even warned there is a bigger risk of not doing enough.
- In our [2Q20 report](), we discussed the differences between quantitative easing/QE and Modern Monetary Theory/ MMT.


CNBC
Treasury Secretary Janet Yellen makes push for major stimulus, sees bigger risk in not doing enough
Treasury Secretary Janet Yellen told CNBC on Thursday that a "big package" of stimulus is necessary to help the economy stage a full recovery


Economic Times
Jerome Powell signals Fed to keep buying bonds even as outlook improves
Price action was volatile in the aftermath of Powell's opening statement text release, with 10-year yields initially rising a couple of basis points to ...

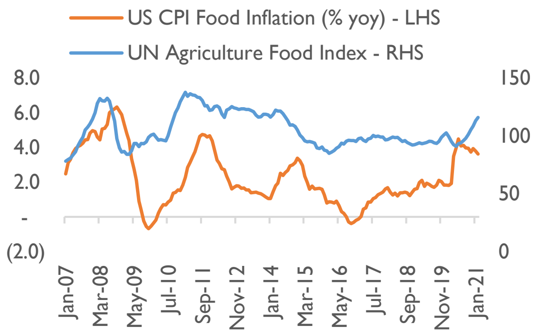
Neo-protectionism, escalating geopolitical tension, diseconomies of scale, and commodity price rally drive costs up

- Biden's Made in America is just a flattering version of Donald Trump's Make America Great Again (MAGA) which will likely result in an increase in prices.
- Surging geopolitical contests could cause commodity prices to go ballistic. Two-centuries worth of data suggest that every major war and geopolitical contest have been associated with high-level commodity prices and inflation rates.
- The recent rise in commodity prices, in particular, food prices will have a direct impact on inflation. The impact already starts taking its toll on inflation



Commodity price tend to spike during rising geopolitical tension
Source: Barry Bannister & Nicolaus Stifel

Food inflation in the US started to creep up as soft commodity price increased
Agricultural Food Index vs. US CPI Food Inflation YoY



Source: Bloomberg, FAO

7. Commodity Supercycle: A perfect cocktail?

Our growth mindset journey

If we merely rely on periodicity measures, a commodity supercycle is supposed to happen only once in several decades. With the latest one having ended in 2014, a new supercycle should not happen anytime soon. However, we try to study the current dynamics and structure of the economy. That learning process has led us to our view that a new commodity supercycle will happen, not based on periodicity but causality.

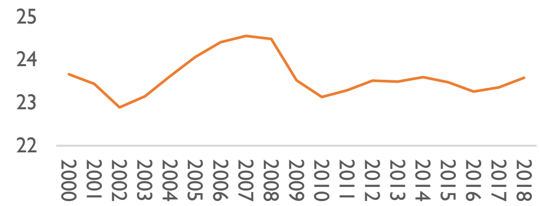
Worldwide synchronisation of government infrastructure spending as a response to COVID-19, weak USD, underinvestment in the commodity sector, industry consolidation, and extreme weather could act as the catalysts.

Government spending synchronisation and green infrastructure construction across the world will translate into surging demand for commodities

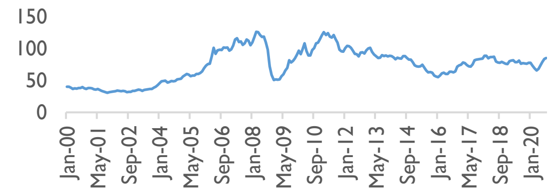
- In our 3Q 2020 report, we discussed large infrastructure spending (New-Deal-inspired policies) by the governments to take on the “K-shaped” economic recovery.
- Historically, high infrastructure spending (measured by gross fixed capital formation) will translate into higher base metals prices.
- In particular, the base metals such as nickel and copper will benefit from digital and green infrastructure which is enacted by the government from the developed countries.

Gross fixed capital formation affects base metal price positively

Gross fixed capital formation as % of GDP - world



Source: World Bank



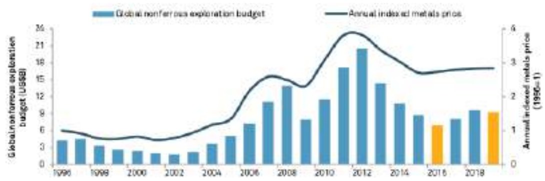
Source: Indexmundi

A decade of underinvestment in the mining industry could result in a potential supply crunch

- Subdued commodity price in the last decade has reduced the appetite for investment in the mining and energy industry.
- Longer lead time from discoveries into production will result in lower replenishment of their depleting resources.
- Rising ESG scrutiny in the sector will also make it harder for the industry in obtaining financing – which will decelerate the future supply growth.

Low exploration spending in the last decade will imply a low future supply growth

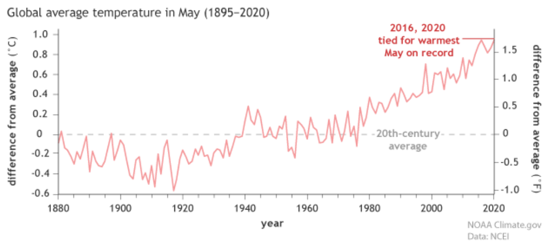
Global nonferrous exploration budget in US$ billion (LHS), Annual indexed metals price since 1996 (RHS)



Source: S&P Global Platts

Extreme weather conditions and supply chain disruption will also drive soft commodity price up

- The global average temperature is back to a record high in 2020 – this is despite the (pandemic) lockdown.
- A study by the US Proceedings of the National Academy of Sciences (PNAS), shows that for each degree Celsius increase in global temperature, yields of corn are expected to decrease by 7.4%, wheat by 6%, rice by 3.2%, and soybean by 3.2%.
- COVID-19 restrictions have disrupted supply chains which drives up the soft commodity price even further.




WSJ The Wall Street Journal

Shipping Container Shortage Gives Commodity Prices Extra Boost

Rampant demand isn't the only reason for the container shortage. Health precautions and coronavirus cases among workers have slowed the ...

8. It is the best time to invest in the ASEAN market

Our growth mindset journey

A decade-long ASEAN market underperformance relative to the S&P 500 Index has made the market unpopular amongst investors. The under-representation of technology companies in the ASEAN markets played a big part in this underperformance. Is the ASEAN market really dead? We think not, for two reasons: (1) There is a shift from growth to value, and ASEAN offers a lot of value; and (2) A lot of ASEAN home-grown technology firms will be listed in the stock market this year and the next coming years.

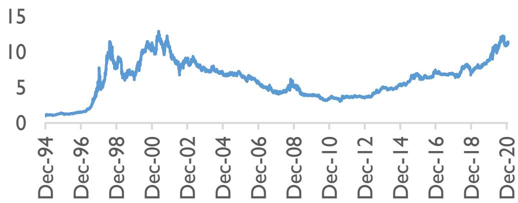
The weakening of USD, the commodity supercycle, and rising inflation expectation are the driving force for the rotation from growth to value. On the other hand, ASEAN tech companies' IPOs may attract loads of interest as the region offers attractive growth potential. This can be seen by the SPACS that are targeting ASEAN assets. As of Feb 23rd, 2021, there are six out of eighteen SPACs with US$ 1.8 bn from the total US$ 5.1 bn deal size, chasing deals in ASEAN ventures. The ASEAN-focused SPAC has shown outperformance in terms of the YTD return. The stars are now aligned for the ASEAN market to rise again.

The ASEAN market underperformed due to currency depreciation and low-tech exposure

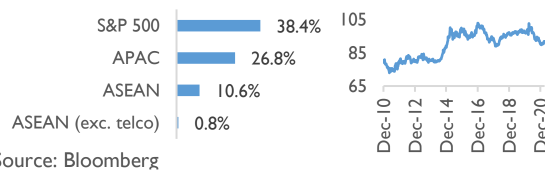
- Currency pressure – ASEAN currencies suffered from three things: (i) the Fed Taper Tantrum, (ii) Donald Trump's economic policies that caused capital flows to the U.S. denominated assets, and (iii) post-commodity boom current account deficits.
- The ASEAN market has low-to-no tech exposure, compared with the U.S. market: hence, the ASEAN market did not participate in the huge tech bull market.

The ASEAN market underperformed S&P 500 in the last decade. The underperformance is likely caused by strong USD and low tech exposure

S&P 500 Index vs. MSCI ASEAN relative performance



Tech weighting in the respected indices (left) Dollar index (RHS)



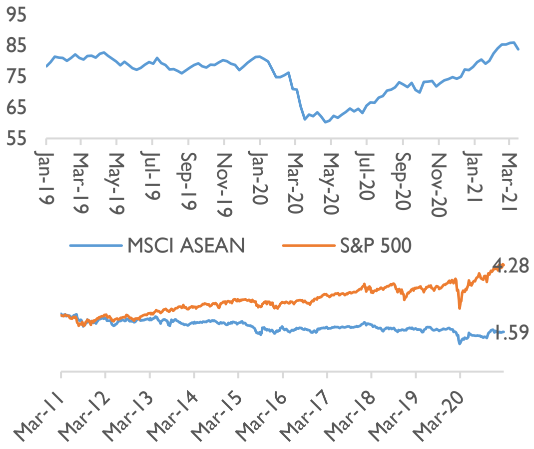
Source: Bloomberg

ASEAN underperformance relative to the US market is set to reverse

- USD to weaken (as we discussed earlier) which will trigger capital inflow to the region.
- Recent strength in the commodity price is expected to sustain which will benefit the region.
- ASEAN equity will also benefit from the rotation to value amid rising yield and inflation.
- Potential tech unicorns listing could also attract more interest in the region given it is still at the nascent stage relative to the US and China.
- Low public debt to GDP ratio relative to the rest of the world, also lower the risk of implementation of financial repression

The factor that drove ASEAN underperformance are set to reverse

Bloomberg Commodity Index (top) MSCI ASEAN vs. S&P 500 price/book multiple



Source: Bloomberg

Within ASEAN, Indonesia stands out because of its structural reform

- Indonesia has reached an important milestone in terms of structural reform after they passed the Omnibus Law.
- We view this is as a game-changer law for the country as it improves the countries competitiveness from all aspects.
- Indonesia has successfully secured a large flow of FDI (from CATL, LG Chemical, etc.) especially in the mining downstream for the EV battery sector.

Omnibus Law – Act No. 11/2020 on "Job Creation"

Notable changes include:

- More investor-friendly labour law (lower minimum wage escalation and severance pay)
- Improvement in ease of doing business from regulation/license overhaul.
- Investment incentives in form of tax incentives and free land lease in a government-owned industrial estate
- Lower corporate income tax rates (from 25% to 20%).

Summary

Summarising the foregoing, we think that the key points are (i) that 2021 will be a pivotal year with many trend breaks; (ii) that this requires investors to be actively open-minded and try to figure out the potential implications of these trend breaks (i.e., try to adopt growth mindset); and (iii) that while investors can benefit tremendously from adopting a growth mindset, it requires conscious effort in everyday life. At Heyokha we continue our journey, as exemplified by our new approach to portfolio management and the strengthening of our team in that area. We are excited to see how this will play out.

Enjoy reading our reports?
Check out our website for more!

-The End-

------------- Appendix I -------------

Our View on Cryptocurrency

Cryptocurrency marks the decentralisation of finance

Crypto assets are invented virtually, and their history of existence is short (just over a decade for most). Bitcoin is the largest tradable crypto asset with a market capitalisation of around US$869 billion at the time of writing. The underlying technology, blockchain, was invented to support its first application of the Bitcoin network.

Bitcoin is a virtual coin produced (using mathematical programs) through a process called mining. Bitcoin's intended purpose was to serve as "peer-to-peer electronic cash".

It is considered as an asset by analysts due to its store-of-value proposition, as well as the costs this networked system can save from bypassing the traditional financial system. The true value is unknown, and there is no single theory to explain it just yet. However, financial institutions have been watching its development for several years now.

To quote UBS, back in 2016, in its White Paper, "We believe that the blockchain is a potentially transformative technology that will leave as deep a mark on our world over the next twenty years as the internet has over the last twenty.

For this reason, we have been very active, not only in understanding it but in collaborating with the wider community in helping to shape a blockchain-enabled future financial industry."

Bitcoin represents one of the alternative financial infrastructures that is not sponsored by financial institutions, and you can understand why it attracts so much scepticism from the financial industry. Decentralised finance on such a big scale is never

Bubble	Asset class	Approx. # days to peak	Approx. # days decline	Total length of bubble (yrs)	Max. multiple of starting price	% decline from peak
Dutch tulips: 1634-1639	Commodities	148	164	1	39.9x	-93%
Mississippi Company: 1718-1720	Equities	520	322	2	36.9x	-64%
South Sea Company: 1719-1720	Equities	324	150	1	8.4x	-81%
DJIA: 1921-1932	Equities	2,987	1,031	11	5.6x	-89%
US rail stocks: 1923-1932	Equities	2,162	1,033	9	2.4x	-92%
Gold: 1977-1982	Commodities	766	632	4	6.3x	-60%
Oil: 1973-1986	Commodities	1,005	1,612	7	2.8x	-73%
Nikkei: 1982-1992	Equities	2,919	914	11	5.1x	-59%
Japan RE: 1982-1992	Real Estate	2,894	940	11	6.5x	-74%
Polish equities: 1992-1995	Equities	616	388	3	28.7x	-70%
DM Tech: 1995-2002	Equities	1,365	721	6	7.9x	-78%
US RE: 2000-2009	Real Estate	2,595	783	9	2.9x	-73%
Saudi equities: 2003-2007	Equities	1,514	342	5	8.5x	-66%
US Financials: 2002-2009	Equities	1,604	738	6	1.9x	-78%
Gold: 2002-2015	Commodities	3,534	1,578	14	6.8x	-44%
Japan RE: 2003-2009	Real Estate	1,425	767	6	5.9x	-76%
Copper: 2004-2008	Commodities	1,151	127	4	4.1x	-66%
Uranium: 2005-2010	Commodities	911	1,005	5	6.6x	-70%
Oil: 2006-2008	Commodities	660	128	2	2.5x	-69%
China A shares: 2005-2008	Equities	685	381	3	6.7x	-71%
Average	N/A	1,443	656	6	11.4x	-71%

Source: Man Solutions; as of 2017.

heard of, and it is really in unchartered territory or in the words of UBS, leaving a deep mark on the world.

Bitcoin is highly volatile, yet its value proposition is rather lucrative

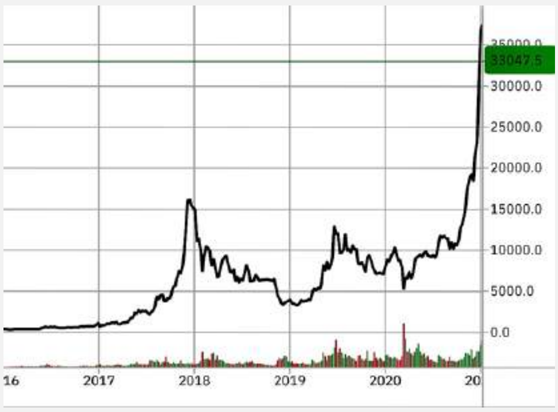
Bitcoin, despite its short history, has a price chart similar to a speculative asset that went from boom to bust, as shown in the borrowed chart showing selected financial bubbles throughout history.

The average number of bubble years is 6 with the trough to peak price rose 11 times and the average correction after bubble burst is -71%. However, Bitcoin also differs significantly in the way that its 12 years of history has experienced THREE bubbles by similar traditional counts.

Each time it has a "higher low" and so in the grand scheme of charting, the bull run is still in the making. This uniqueness is probably why conclusions cannot be drawn simply by borrowing past experience.

Bitcoin price spiked from the 'higher low'

Bitcoin/USD 33,047.5 at time of writing on 25 Jan 2021



Source: Bloomberg

Volatility aside, the value proposition is interesting:

1. Bitcoin is not a technology company that sells a piece of technology. Therefore, it is not subject to takeover by other giant companies (e.g., SoftBank), nor is it subject to government license (e.g., the Fed) or being nationalised (e.g., BABA)
2. Bitcoin is your own property and can be securely kept by yourself. In the unlucky situation where you or your company declare bankruptcy, no one can confiscate your Bitcoin.
3. Bitcoin, as peer-to-peer electronic cash, was invented as an alternative to cash. Since it has not consulted the governments and the banks, the centralised agents, its adoption cannot be gradual and orderly. Its inherent utility value will be felt over a long period of time.
4. Bitcoin is local and global, with minimum 6 nodes at work. Genuine transactions will be endorsed and recognised by the world when you go to the internet. The operating cost is very minimal, but the trust and security value are extremely high.
5. Bitcoin, as a network, can be attacked (hacked). Its source is open and transparent. But it is too late now. Getting control of over 50% of all coins is extremely costly at the moment. Quantum computing by 2040 may be a threat. But, it also makes the rest of other networks even more vulnerable.
6. Bitcoin is a participation in a trusted movement. It works with network effect to its purest sense (i.e., truly decentralised). Its governance is consensus (i.e., democratisation). Its ownership is non-discriminative, spreading to the unbankable (although the digital divide has not been completely solved).
7. Bitcoin is a symbol of collectibles. Theoretically, having 0.28 Bitcoin puts you in the top 1% of all bitcoin HODL (holders). It represents the need for universal, trusted, and secured wealth. And when you decide to transfer a large part of the wealth, the cost (discovery, verification, time) is also extremely low. The biggest effort is probably locating your private key!
8. Bitcoin can be treated as an asset. Its biggest valuers are trust and security. If you are owning and paying for the gold, vaults, encryption, secrecy identity, audit, custody, bankers, lawyers, values, contracts, etc. You know what you are seeking. This trillion-dollar value can be replaced by crypto (i.e., blockchain), and Bitcoin is the mother of all cryptos.
9. Bitcoin is speculation. It is intrinsic in the financial system. There have been many great experiments in the history of financial markets, with negative interest rates being the most recent. The difference is that it is not started by the centralised (and authoritative) agents.

The days of who is going to be the next Fed, SEC chairman may never be gone, but Bitcoin says it does not care that much.

10. Bitcoin is a saving. Start collecting fewer pop arts, player cards, designer T, shoes, etc. Start saving bitcoin instead, as it is extremely easy and virtually costless. The entry point can be as low as 0.0000001 Bitcoin.

Bitcoin may increase risk-adjusted returns

A recent CFA Brief about cryptocurrencies showed that the overall portfolio returns improved significantly by including crypto assets. Their analysis shows that "Adding Bitcoin to a portfolio has historically had a significant positive impact on the long-term portfolio returns on both absolute and risk-adjusted basis."

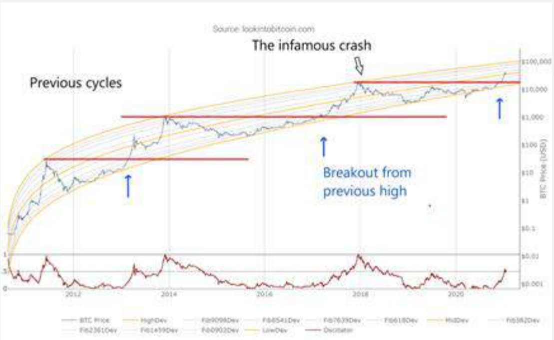
For example, during the whole period under consideration (1 January 2013 - 30 September 2020), a quarterly rebalanced 2.5% allocation to Bitcoin would have improved the traditional portfolio's returns by 23.9 percentage points. Importantly volatility would have remained almost constant (10.5% versus 10.3%). As a result, the Sharpe ratio expanded from 0.54 to 0.75. In other words, including alternative asset such as Bitcoin makes diversification truly work.

Regardless, Bitcoin price might indicate that it is reaching another cycle peak

Before we left this topic off, we would like to present an alternative way to look at Bitcoin price behaviour. First, we need to show data dated back to 2010 when BTC started.

A log-scale chart of the price Bitcoin reveals a cycling pattern

Bitcoin price in log scale, USD



Source: CFA Institute Foundation / BRIEF - Cryptoassets - The Guide to Bitcoin, Blockchain, and Cryptocurrency for Investment Professionals, by Matt Hougan and David Lawant, 2021.

Second, and most importantly, the scale of the chart is wrong. Because of the massive rally in 2017, the previous price history is obscured. When we have such extreme values in the data, we need to use log scale. When we combine the longer price history with log scaling, we get this chart below.

It suggests that price movements have been on a structural uptrend and possibly approaching another cycle peak.

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------------- Appendix II -------------

Yield curve control

A way to cap bond yields without using the central bank's balance sheet is to use that of others'

In essence, a central bank policy of capping yields in a period when the markets are concerned about rising inflation expectations is equivalent to a commitment to the unlimited purchase of government paper that the financial institutions would like to sell. This will lead to a massive balance sheet expansion and liquidity creation.

We are of the view that no central banker would pursue such a policy as it is very inflationary. While pursuing a lot of inflation can lower debt burdens in many countries, such policy will destroy wealth and may lead to serious social issues, or even instability.

The second option is financial repression, whereby savings institutions will be forced to buy government debt to cap the yield. This scenario is more likely in our view, as it will not lead to remarkably high inflation. In line with the spirit of the era, i.e., wealth distribution, financial repression moves wealth from savers to debtors. The objective here is to create inflation while capping the yield.

Instead of being executed by central bankers, money creation will be at the hand of the governments, who will also decide the level of yield at which interest rates will be capped. Thus, in the era of financial repression, instead of using the central bank's balance sheet, the governments will be using savings institutions' balance sheets.

The task for us is to figure out the impact of such financial repression policy on the stock market because there is still no free lunch. Since saving institutions have to buy government debt, it also implies that they need to sell something else. And that something else could be equity.

Capping yield at record high indebtedness could prevent a debt crisis

Debt comes due and needs to be serviced. Every recession calls for the government to spend more at an uncomfortable time when tax revenue is lower than usual. Such conditions will lead to one-way, higher deficits. The deficits need to be covered by new issuance of debt or financed by government reserves.

As of 3Q20, the US Public Debt reached 127% of total US GDP, just a slight decrease from the all-time-high in the 2Q20 of 135%. By capping the yield at the bottom, the debt burden for the government eases.

To give a perspective, 100bps of interest expense will be equal to 1.27% of GDP, US GDP growth has been 1-3% in the last decades. Should the interest rates go up with the current debt-to-GDP levels, the US may face a debt crisis. Not just the government, US corporations might also take a hit from interest rates hike to their credit spread.

What matters for investors is how the Fed will control the yield curve. We see two possibilities:

- First, the Fed could commit to unlimited purchases of government bonds. We believe this is unlikely because that would be highly inflationary. Nevertheless, the earlier part of the high inflation period is good for equity. The later part of uncontrollable inflation is not.
- Second, the Fed could control yields through financial repression. For example, by forcing financial- and savings institutions to purchase government bonds. This would suppress yields, but also hurt equity markets due to shifts in asset allocation.

This method is less inflationary and as such a more likely scenario, in our view.

Date	US Debt	Debt Service	% of tax revenue	Implied Rate
Q1 1980	$863 billion	$103 billion	7.5%	11.94%
Q4 2019	$23.2 trillion	$415 billion	4.9%	1.78%
Q2 2020	$26.5 trillion	$472 billion	5.8%	1.75%
Rate up by 1%	$27.0 trillion	$743 billion	9.1%	2.75%
Rate up by 2%	$27.0 trillion	$1,023 billion	12.5%	3.75%

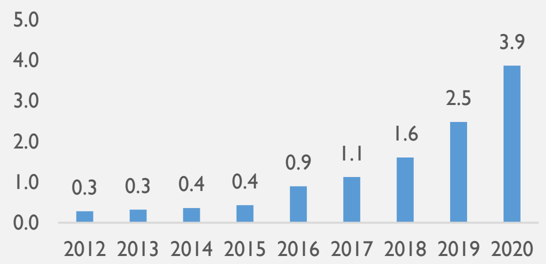
------------- Appendix III -------------

The case for the rise of retail investors in Indonesia

Despite the rising smartphone and internet penetration, from the 1980s to 2019, only 2.5 million individuals in Indonesia owned stock brokerage accounts (nearly 1% of the population), but within the COVID-19 pandemic, the number of investors increased by around 1.5 million (+55.8%) just within one year. Retail investors are the new captain in the stock market.

Rise of retail investors in Indonesia

No. of Individuals with Stock Brokerage Account in Indonesia in million



Indonesia's stock investor demographic

Investor Age	Investor No. (%)	Assets As of Dec 28, 2020 (Trillion IDR)	% of Assets
< 30	54.8%	30.82	4.1%
31-40	22.6%	68.89	9.1%
41-50	11.9%	129.34	17.1%
51-60	6.6%	166.36	22.0%
>60	4.2%	360.76	47.7%

Source: Indonesia Central Securities Depository, Statista (2021)

In the market physically close to us, Indonesia, retail investor participation reached a record high last year. Ownership of the equity market by retail investors has reached 13%, higher than 12% ownership by domestic funds.

An estimate by Verdhana Indonesia suggests that if we exclude ownership by the corporate, financial institution, founder, and 'other' (per Indonesian central custodian definition) from the denominator, retail ownership is equal to 29% of the market, putting Indonesia close to more developed markets.

Market information in the retail investor era

Fundamental investors focus on finding value in the markets. The most reliable method is using valuation metrics and waiting for the markets, in particular the less informed participants, to conform to those valuations.

Research is a theoretical construct while portfolio management is carried out in real-time markets. The markets are always feeding information whether they are likely to conform to our investment thesis, through price and volume.

The rise of retail investors is sending other strong messages – Is valuation relevant for all investors? Do we need a professional to do it? Should speculators look at valuations? What is wrong with setting target prices based on round numbers of 0.5, 1, or 1.5?

Fundamental analysis is a rational argument for taking risks in the markets, for we are expecting a return that we understand. The rise of retail investors means that markets remain in the Wild West, and we understand much less than we think.

Therefore, capturing those messages, through market behaviour itself as well as through social media – the emotional aspects – is important to look at, because it can present risks from a different perspective.

If pump and dump are known, and the pattern repeats, the logic is clear – a game of musical chair driven by greed, absolutely not fundamental yet logical as FUD and FOMO exist in markets every day, and now publicly proclaimed en mass through social media that pull together all speculators. That can be a tremendous force that may be here to stay.

------------- Appendix IV -------------

Howard Marks, on redefining growth and value stocks

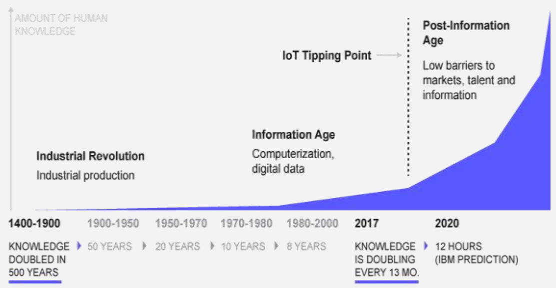
Howard Marks of Oaktree Capital gives a new perspective of growth vs. value stocks in his investor letter titled "*Something of Value*". In our particular interest, he noted how the world had changed, and how we should redefine the concept of value vs. growth.

Some dynamics can drive decoupling of near-term metrics from valuation the upside and downside as follows:

1. **Innovation and technology adoption is happening at a much rapid pace than before.** It is increasing exponentially as information becomes inclusive over time. Ever-escalating innovation sets the business environment to be more competitive.

Speed of innovation continues to accelerate

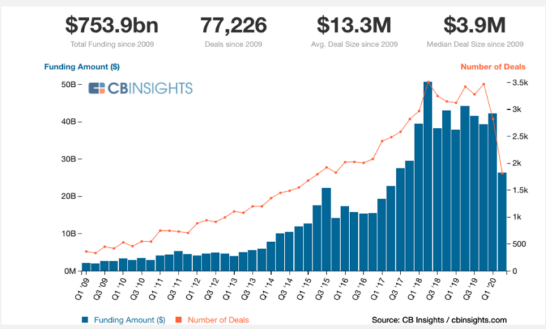
Speed of knowledge



Source: Medium

VC funding has boomed over the last decade

Deals with VC or CVC participation, 1Q 2009 – 2Q 2020



Source: CB Insights

2. **There has never been so much capital available to fund ventures that could change the world.**

According to CB insights, annual venture capital funding had grown almost 13 times to US$ 160 bn between 2009 to 2019.

3. **Today's investors have a higher tolerance for companies that lose money to chase a large prize down the road.**

Case in point, Pitchbook mentioned that startups founded before 2000 such as eBay, Amazon, Salesforce, and Google spent 4.25 years as a private company, raised US$ 29 mn, and have a pre-IPO valuation of US$ 134.5 mn on an average basis.

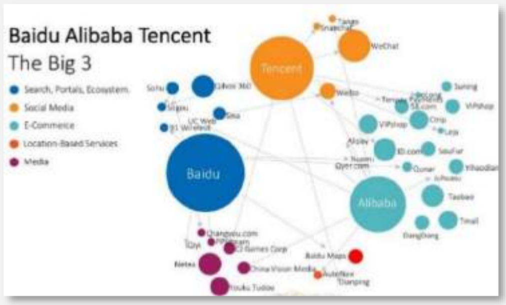
Meanwhile, startups founded after 2006 (Uber, Airbnb, Slack, Lyft, Dropbox, and Eventbrite) spent 10.5 years in the private market, raised US$ 5.4 bn (yes, billions), and have the pre-IPO valuation of US$ 22.7 bn on average.

The stark differences between the two mark the higher risk tolerance of today's investors.

Indicator	Startups Founded Prior 2000				
	Ebay	Amazon	Salesforce	Google	Average
No. of Years Private	3	3	5	6	4.25
Amount US$ mn raised prior IPO	7	9	65	35	29.0
Pre-Market Valuation (US$ mn)	23	60	355	100	134.5

Indicator	Startups Founded After 2006						
	Uber	Airbnb	Slack	Lyft	Dropbox	Eventbrite	Average
No. of Years Private	9	10	10	11	11	12	10.5
Amount US$ mn raised prior IPO	19,900	4,400	1,200	4,900	1,700	370	5,411.7
Pre-Market Valuation (US$ mn)	72,000	31,000	7,000	15,000	10,000	1,500	22,750.0

4. **Today's winner moats are getting stronger and more effective instead of getting bloated and inefficient.**



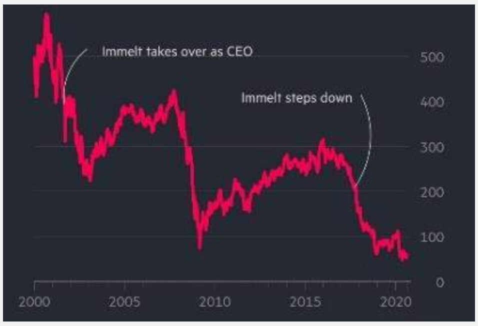
BAT tech ecosystem

Source: Markle and Wall Street Journal

Baidu, Alibaba, and Tencent have shown themselves to be agile giants by expanding rapidly whilst maintaining a high degree of competitiveness.

GE: an example of American conglomerate getting bloated when they were the one biggest company in the world

GE market cap in US$ billion



Source: Financial Times, Refinitv

In short, businesses are both more vulnerable and more dominant in today's world. High valuation multiple of successful businesses who have high growth, superior economics, and moat might be justified. After all, value investing is about buying businesses under their intrinsic value rather than low valuation multiple.

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