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## THE MONEY ISSUE

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LARGE AND IN CHARGE

**Contributors**
Ashley Ow
Nina Gan
Paul Ng
Tartan Ow
Yin Loon

**Editor-in-Chief**
Aaron Stewart
aaron@campus.com.sg

**Creative Director**
Lynn Ooi

**Designer**
Yun Ng

**Sales Enquiry:**
aaron@campus.sg

**Lennox & Ooi Media Pte Ltd**
11 Paya Lebar Road #02-12 S409050
Tel (65) 6732 0325



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## MONEY Issue



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BY PAUL NG XIN KAI

# THE ECONOMIC IMPACT OF THE UKRAINE WAR

**To a casual observer, it's been nearly 5 months since Russia invaded Ukraine and it's begun to feel like the war has entered a new phase: a stalemate. With Russia making incremental gains, and Ukraine repelling Russia. Almost like the war's new *normal*, but none of this is normal. Yet somehow here in Singapore, it almost feels too easy to simply choose to ignore all these things, which raises the uncomfortable question: should we be allowed to ignore them?**

**In war, while there's a very human cost, there's also an economic side. It's more so with this war, because it's the economic side that's impacted many of us. For instance, 8,000km from Ukraine in Singapore, the war has directly led to an increase in food prices for everyone.**

## OF WAR AND CHICKENS

Economists agree, the Ukraine war just exacerbated pressure on prices of things, which was already rising on the back of the two-year-long pandemic. What really got our attention – for anyone not paying close attention to the situation – was when we recently saw, for the first time ever, a packet of chicken selling for S$72 at NTUC. To be fair, it was organic, and only a one-off occurrence, but it really hit home the idea of food scarcity and the cost of war.

Singapore is a tiny city state, with few resources. We're not going to be able to have a chicken farm, vegetable farm, or any farm, because there's not enough land. So, we essentially import everything; Malaysia accounts for 30% of Singapore's import, and that's just chickens.

Obviously the problems chicken farmers in Malaysia face today have been replicated around the world. We've seen a significant increase in the costs of rearing chickens, starting with the price of corn and the electricity needed to incubate the eggs.

For Malaysians, initially exporting chickens to Singapore made sense, because with price control in Malaysia, it was more profitable to sell chickens across the border. Now with the Malaysian chicken export ban, Singapore needs to find other sources, so we bought chickens from everywhere else on the planet. That's the reality of the problem of food security these days.

But it's not just chickens; it's other products, too. And it's not just Singapore, it's also the world.

## IN GRAIN WE TRUST

About 40% of the world's wheat is produced between Russia and Ukraine. Meaning what is happening now is heavily impacting the people in Africa and the Middle East, because they rely on imports of grain from Ukraine.

Essentially, Russia is trying to use the threat of starvation as blackmail to get the sanctions on it lifted - a huge problem in itself. However, apart from grain, the problem extends to other food commodities that you may not initially think are critical.

Ukraine is one of the biggest producers of sunflower oil, which is an important edible oil. Frying with edible oil is the main form of cooking for tens of millions of India's poorest people, and already, edible oil prices have climbed 50-70% from pre-Covid prices. Forcing even middle class families in India to change their diet – something which isn't even an option for poor families who rely on edible oils as their primary means of cooking.

Even in a wealthy country like Singapore, prices of edible cooking oils have begun impacting local eating habits because prices have increased significantly. For example, a 15kg tin of cooking oil that hawkers use used to cost S$23. Now it's doubled.

Edible oils is just one type of food commodity – one which many of us don't associate with the concept of going hungry. We're not even counting other commodities, like corn and barley, all of which are increasingly in short supply globally because of the war in Ukraine.

In short, the ripple down effect of the Ukraine war simply compounds the cost-increases due to all the prior supply disruptions.

## FUEL OF WAR

Another way the war is acutely felt by all of us is global oil prices. The irony is that Russia is directly responsible for starting the war, which has led to its oil being sanctioned, which in turn has led directly to a sharp rise in global oil prices.

In December 2021, when Putin was threatening Ukraine, oil prices were US$66 per barrel. Fast forward to 8th March 2022, and prices spiked at US$123 per barrel – the day the US announced its ban on imports of Russian oil.

The ongoing sanctions against Russian oil exports have only been making oil prices climb. In Singapore, it has increased the cost of running a car, despite the fact that several of our neighbours are oil producers themselves, like Malaysia and Brunei.

Once you take Russia out of the equation, everyone has to bid for a smaller pool of global oil, even though part of the pool is just next door to Singapore. Meaning everyone will end up paying more, because there are now less sellers, and a lot more buyers for the pool of global energy.

All while poorer countries are more greatly affected by the war because they have less cushion to absorb any cost increases. Let's say if you're reliant on a diesel generator for power for your home; a doubling in the price of oil probably makes it impossible for you to continue to use the generator for basic needs. And that's just a diesel generator at home – what about transportation? Education? Healthcare? You can't run a hospital with no electricity.

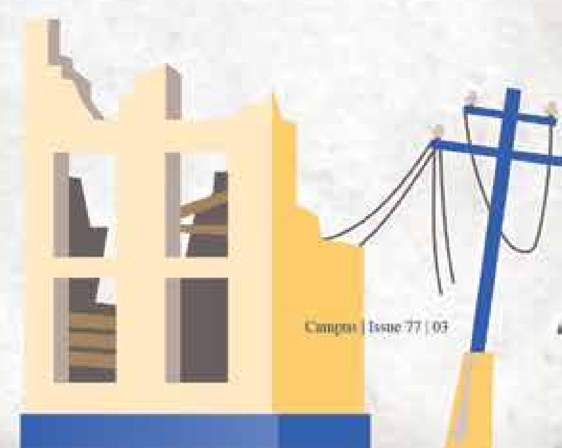
## WHAT CAN WE LEARN FROM THE WAR?

This invasion of Ukraine by Russia is an existential threat to all of us. From Brazil to North Africa, 400 million people around the world are at risk of starvation due to the ongoing war in Ukraine.

No one is going to starve at the moment in Singapore, but for the first time ever, we've been forced to think carefully about food security. Singapore is an extremely well-off country, so we're in a unique position where we're both able to sanction and shop elsewhere, because we have the resources to absorb the shock of it all.

However, many other countries may not have the luxury to sanction as they're vulnerable, and that's why there's talk of food being used as political blackmail on these countries by Russia. It's therefore easy to lose our perspective in Singapore, as the war doesn't affect us too greatly.

The next time you complain about your chicken rice prices, understand that we're in a very privileged position. While we have the resources to weather the food prices and the supply chain issues, we shouldn't be ignoring the impact of the Ukraine war on other countries.



# WHY IS IT SO EXPENSIVE TO GO GREEN?

**Ditch fast fashion in favour of sustainable clothing. Eat organically-produced food. Drive an electric car. While in theory these environmentally-friendly attitudes are encouraged, they often overlook the fact that not everyone can afford to go green. More often than not, sustainable goods are more expensive than mass-market products. Sometimes way more than many people are willing to pay.**

Despite the fact that these products are supposed to use less packaging and follow sustainable manufacturing processes, environmentally- friendly products can more than double the price of conventional products. At the supermarket, for instance, you can find dishwashing liquid soaps that range from $3.85 (normal) to a whopping $14.90 (eco-friendly) for a 500ml bottle. An online search reveals that organic apples cost four times as much as non- certified ones. Head to your local Scoop shop and you'll easily pay double what you'd normally pay for cereal, and without packaging.

However, a Nielsen study found that millennials (ages 22-35) and Gen Zs (ages 16-21) are willing to pay substantially more for eco-friendly products. These days, 80% are willing to pay more, compared to 66% back in 2015. The Covid-19 crisis has only increased environmental awareness, with 55% of consumers saying they're more likely to purchase environmentally- friendly products.

Most of us are willing – and able – to pay a sustainability markup of about 10%, and maybe up to 30%. This pricing could be well-accepted in the mass market, and thus increase the distribution of sustainable products dramatically. However, some of the price differences can be very dramatic. But what is it based on, and what is the real cost of going green?


## THE COST OF THE GREEN LABEL

All that markup only makes us ask: does it really cost that much more to make things environmentally-friendly? To answer that, we need a breakdown of the production costs.

Here are the root causes of the high markups:

**Production markups** start from obtaining the raw material to all of the steps needed to produce the final product. For example, making a T-shirt begins with growing cotton, followed by weaving, colouring, sewing, and packing. There's a higher cost of production for organic materials too, including more expensive labour, smaller crop yields, and more space.

**Brand owner costs** consist of costs needed to create a branded product and a profit margin.

**Certification markups** are also built into the final price. Yes, there's a fee for the documentation of eco certification, such as for organic or fair trade.

**Volume markups** means you pay more because there's less of the item in the market.

**Wholesale and retail markups** comprise all downstream costs and profit margins.

No doubt companies are tight-lipped about their finances, arguing that revealing such information would undermine their competitiveness. These days, more and more consumers are simply wondering if this is all just greenwashing.


## THE GREEN GAP

Eco-friendly goods show up in a variety of categories, from energy to food and clothing. The production process is supposed to minimise the ecological and social impact, while still making them economically viable to produce.

The biggest reason we as consumers pay a premium is quality and safety. These include healthy ingredients (ie. no hormones) and organic ingredients. Other concerns include sustainable packaging materials and social responsibility, such as fair farming and no harmful emissions or byproducts.

Research from Kearney shows that sustainable products are an average of 75-85% more expensive, and markups vary widely. The highest markups are in fashion, beauty, and health, where things like lotions and creams have markups over 200%. Sustainable fashion line markups range from 150-210% depending on the brand (more for luxury brands).

Sustainable food is marked up anywhere from 40-140%, with some processed vegetable products marked higher than raw products. Organic canned tomatoes may go for 130-140% higher, compared to fresh organic tomatoes which are marked up by up to 50%.

While most of us would want to shop with sustainability in mind, some of us can't afford to when the markup is 75-85% more. This gap between the set prices and what the mass market will tolerate is called the green gap.

## IS IT JUST GREENWASHING?

Not surprisingly, the first steps of the value chain – raw materials, energy, and labour – have the biggest impact on sustainability. This is especially true of conventional products in food and fashion. Interestingly, the part of the value chain that has the biggest impact on sustainability for the end product accounts for only 10-30% percent of the final product cost.

This means that if companies kept the green markup to this range, then most consumers would be able to afford ecologically sustainable goods.

Surprisingly (or not), the biggest markup of 80% for non-food (70% for food) products are markups for profit margins. This means the highest increases are from steps that have little or no impact on sustainability. They're just being added as a premium when the products are distributed to consumers.

Of course, companies have the right to determine their own markup – but determining whether it's fair is bound to be subjective. If prices are several times higher than the cost of goods sold, then consumers have the right to ask if making goods for only an exclusive segment is truly ethical or just hollow marketing.

It's far easier for us to adopt environmentally-friendly habits by driving less, being more energy efficient at home, and reducing food waste. But being a green consumer is not as easy to do. Especially not when the poor are being priced out of sustainable and ethical consumer options.

While environmentally-friendly production does tend to cost more, the price passed on to consumers could be much lower. These arbitrary pricing structures could be hindering mass adoption of green products.

No matter how many eco-friendly straws, sneakers, garments or tinned tomatoes are available, their high pricing will always leave the poor and middle-class people with not much of a choice. And when consumers are forced to make trade-offs between affordability or helping the environment, the environment almost never wins.

BY ASHLEY OW

# HOW TO MAKE MONEY AS AN INFLUENCER

Being an influencer is fast becoming a career goal for many teens these days. Not surprising, seeing the sheer number of influencers out there just "living their best life". So how do they make money and just how much can an influencer earn?

As you open up Instagram and see yet another #sponsored post on your feed, you may wonder: Why are there so many more influencers than ever? Do they really earn five to six figures posting online, partnering with brands? The answer is, probably.

## CATEGORIES OF INFLUENCERS

Depending on the size of their following, their income may vary accordingly. We can categorise influencers based on their audiences on any one platform into Mega, Macro, Micro, and Nano-influencers.

The 4 types of influencers, according to the number of followers:

**MEGA-INFLUENCERS:**
more than 1 million

**MACRO-INFLUENCERS:**
40,000 to 1 million followers

**MICRO-INFLUENCERS:**
1,000 to 40,000 followers

**NANO-INFLUENCERS:**
up to 1,000 followers

So how do influencers make money with their following? These figures typically have various streams of income beyond posting #ads on Instagram.

## THE PLATFORMS

### YOUTUBE

The biggest source of income for YouTubers are ad revenues with Adsense, with $18 on average per 1,000 ad views. It's reported that the average salary for YouTubers with over a million subscribers make about $60,000 per year.

According to YouTube, to join the Partner Program, you must:

1. Live in a country/region eligible for the YouTube Partner Program
2. Have no active Community Guidelines strikes on your channel
3. Gain more than 4,000 valid public watch hours in the last 12 months
4. Gain more than 1,000 subscribers
5. A linked AdSense account to your channel

### TIKTOK

TikTok is estimated to pay 2 to 4 cents per thousand views, and a creator with a million views could make between $20 to $40. To join as a creator, you must fulfill these requirements:

Based in the US, UK, France, Germany, Spain or Italy

- Gain at least 10,000 followers
- Gain at least 100,000 video views in the last 30 days

### INSTAGRAM, TWITTER, ETC

Instagram and Twitter currently don't pay their creators directly.

Influencers of Instagram earn commonly through affiliate links and sponsored posts, while Twitter creators earn from subscriptions, tips, and donation models.

Twitter's monetisation options currently include the Super Follower subscription and Tip Jar. Twitter's Super Follower subscription plans are priced at $2.99, $4.99, or $9.99, with 97% of the revenue going to the creators. Twitter raises its commission and leaves creators earning 80% of the revenue once they reach $50,000 in lifetime subscription.

Other streams of income from various platforms may vary with amount. Some of these include paid subscription and tips on platforms like Patreon and Ko-fi, launching product lines, and selling digital products like Ebooks and tutorials.

Sometimes, influencers can earn from event appearances as well.



## GENERATING INCOME

### SPONSORED POSTS

One of their biggest sources of income usually include sponsored posts as they endorse and partner with brands.

On Instagram, nano-influencers could earn anywhere between $10 to $100 per sponsored post. Micro and macro-influencers could be expected to charge $100 to $500, even $10,000 for their audience size. Companies can be expected to fork out at least $10,000 and above per post to reach the audience of a mega influencer.

To sponsor a video on YouTube which requires more time and effort from the influencers, companies would generally be expected to fork out twice the amount of money compared to a sponsored Instagram post. Companies can be expected to pay nano-influencers between $20 to $200 per video. Micro-influencers could earn up to $1,000. Macro-influencers usually earn $1,000 to $20,000 per video, and mega-influencers would expect a pay of $20,000 and above.

Some influencers on YouTube, however, charge based on the amount of views, with a range between $50 to $100 per thousand views. This might be a factor that influencers take into consideration when negotiating brand deals.Since its launch in 2016 as Douyin, TikTok quickly rose to becomeone of the top few platforms for online influencing. However, there are only estimated amounts that influencers could earn per sponsored video.

Each sponsored TikTok video is estimated to cost between $5 to $25 for nano-influencers. Micro-influencers could charge between $25 to $125, and macro-influencers could earn between $125 to $2,500. Mega-influencers could earn a starting pay of $2,500 and above. Some of these non-celebrity, mega-influencers with millions of followers could even earn $10,000 per video.

Influencing on Twitter isn't new. But on Twitter, it could cost much less for each post. Nano-influencers could charge between $2 to $20 per tweet, and micro-influencers could be sponsored up to $100 per post. Macro-influencers could earn up to $2,000, and mega-influencers could be expected to earn at least $2,000 per post.

### AFFILIATE MARKETING

Another common source of income for influencers include affiliate marketing. This includes the affiliate links or codes posted on their social posts and profiles that earns them a commission for each purchase. Commissions could range between $50 to $25,000 per month, with the commission ranging between 10% to 25% of the purchase. This source of income mostly depends on the levels of engagement rather than the size of their following since it's affected with each purchase.

### CONTENT CREATION

Many influencers start out by creating content and getting paid for it by platforms, commonly on TikTok and YouTube. With the rise of more platforms introducing creators' funds, it's no surprise that more creators would be paid for content. Creators are typically paid according to the number of views they receive on their content on each platform.

## INFLUENCER'S AVERAGE PAY PER ANNUM

So how much do influencers get paid? The average annual pay of influencers in the US is $59,484, and stands at $58,413 in Singapore.In 2021, if we exclude celebrities, the top 3 earners of each platform per annum are:

**TIKTOK INFLUENCERS:**
Charli D'Amelio, US$17.5 million
Dixie D'Amelio, US$10 million
Addison Rae, US$8.5 million

**YOUTUBERS:**
MrBeast, $54 million
Jake Paul, $45 million
Markiplier, $38 million

**SINGAPOREAN YOUTUBERS:**
Jianhao Tan, US$717,000 (S$1 million)
Peggie Neo, US$21,000 (S$30,000)
Rayner Two, US$15,000 (S$22,000)

**FROM INSTAGRAM AS OF 2022, BY PER SPONSORED POST:**
Lele Pons, US$180,000
Charli D'Amelio, US$173,000
Addisonn Rae, US$156,000

**THE TOP 3 SINGAPOREAN INSTAGRAM INFLUENCERS COST PER SPONSORED POST, ACCORDING TO HOPPER HQ:**
Brad Lau, US$1,700 (S$2,300)
Andrea Chong, US$1,300 (S$1,758)
Mongchin Yeoh, US$1,200 (S$1,623)

Twitter's paid model for both Super Followers and Tip Jar are still new since its launch in February and May 2021, so sufficient data has yet to be collected.

Being an influencer is not as easy as it seems. Depending on the size of their following and audience that they actually influence and engage with, their earnings may vary drastically.

Influencers with huge followings could also have lower engagement rates, and hence lower levels of influence and income. The key to being a successful influencer is to build a loyal community and ensure high levels of engagement that brands could tap into.

# WHAT LED TO THIS YEAR'S CRYPTO CRASH?

BY TARTAN OW

**Remember how for the last few years, the running joke every time someone talked about crypto or blockchain was that no one could really explain it? It's like Einstein famously said, "if you can't explain it to a 6-year old, you don't understand it yourself." And officially as of last month, the joke was on the millions who somehow still convinced themselves investing in crypto was a good idea, without ever actually understanding how it really worked.**

**Die hard crypto fans have always talked about how crypto will democratise finance, money, investment, etc. But after last months' $2 trillion bloodbath, arguably the biggest thing crypto's succeeded in democratising are the losses.**

**If it feels like we've been here before, that's because this isn't crypto's first crash. There's been many other high-profile crypto crashes since its inception in 2009. While crypto devotees claim this time is no different and people should just HODL, this time is very different. So what went wrong?**

## CRYPTO IS NOT A CURRENCY

Firstly, many economists and finance folks have been saying for years that cryptocurrency isn't a "currency." It's a digital asset.

By definition, a currency is a physical piece of money (ie. a note or coin, aka "fiat"), issued and underwritten by a government, who sets monetary policy, and through legislation in its jurisdiction ensures there's no hanky-panky going on.

That's because, in the case of currency, the government acts in its own economic self interests to keep the currency stable through raising or lowering interest rates, controlling how much money it prints, etc.

That's why in times of crisis, governments actively fight to manage their currencies to keep them stable, and keep the cost of living stable for their citizens.

In contrast, crypto is decentralised, free of government interference, and "democratic". It's the exact opposite of how an actual currency works. So if currencies work because a government has oversight, then how does crypto work?

Crypto was envisioned as peer-to-peer (P2P) without government regulation. It was believed that when enough people used it, they'd settle on how best to use it in the broader financial ecosystem.

Diehard crypto users have also argued that crypto was just like any other currency, because all currencies work because you believe in them. For instance, the only reason a dollar is worth a dollar is because we all agree to trust the system. This is why crypto evangelists always claim people need to just "believe" in it and eventually it'll work.

However, history and economics show us that anywhere consumers lose faith in one currency, they readily adopt another, more stable currency to transact in. No buyer or seller wants to transact in something none of them fully believe in. They may speculate in it as a sort of risky investment (with the aim of making a quick profit from the uncertainty), but they won't willingly use it as a currency.

## CRYPTO BILLED AS THE INNOVATIVE WAY TO PAY

Crypto's always pushed the narrative that it's cutting-edge. But crypto's technological innovations seem to have been about innovation for the sake of innovation. It doesn't actually solve specific problems with our existing money.

For instance in 2010, Bitcoin's first transaction was when Laszlo Hanyecz famously bought two large pizzas for 10,000 bitcoins (worth around $40 then). But Laszlo had to first obtain the coins either by slowly mining or buying them, then find someone to agree on a price to convert bitcoins to pizza. He also had to wait for the transaction to go through, which took over an hour to complete.

Would it have been easier to pay for his pizzas in cash? Yes, but Laszlo probably did it for novelty. It wasn't making it cheaper, faster, or better. And that was what a lot of the early buzz about crypto was. It was a community of tech-oriented people trying to create something that was a different approach to money.

Today, the average transaction time by various blockchains could be anywhere from minutes to hours depending on the cryptocurrency and the volume of traffic. Plus there's expensive gas fees. With Visa or Mastercard or any credit card, it's instantaneous. So if it's not cheaper, faster or better, then what's the point of cryptocurrency?



## CRYPTO BECOMES AN INVESTMENT

It's fair to say that most people using crypto today no longer treat it like a currency. They're holding onto it – aka HODLing – because they're treating crypto as an investment.

That creates a fundamental schism in the ethos of crypto, because a currency and an investment are incompatible with each other. If a currency's going to be willingly accepted as a medium of exchange, it needs to be relatively stable over time. It's essentially the opposite of an investment, which deliberately comes with built-in risk that people weigh against a potential return.

People don't want a risky currency, and investors won't invest in something with zero chance of growing and an almost guaranteed chance of depreciating. A currency and an investment can't normally coexist in the same thing.

Laszlo's 10,000 bitcoins he paid for pizza in 2010 would eventually be worth around $300 million at their highest point. But he was spending bitcoin as a currency like many early adopters were, because if he didn't, the value could be eroded by inflation.

If he'd foreseen it would become an investment, he wouldn't have spent it. When enough other people also started thinking of crypto as investment not currency, they naturally started speculating on its value, rather than finding ways to spend it. This fundamentally changed the entire corporate culture of the cryptocurrency ecosystem. It starts to explain how we ended up where we are today.

## CRYPTO'S MASS ADOPTION

The allure of crypto and its mainstreaming through celebrity endorsements, tacit approval by major institutions, and even wholesale adoption by entire countries, gave everyone from uni students and kopitiam uncles the confidence to invest in something.

The obvious problem is if crypto is an investment, it essentially presumes its value will always go up. But in order for someone to profit from buying low and selling high, someone else has to lose. If everyone thinks crypto's going to continually rise, then no one wants to sell at a loss unless they're forced to.

Because everyone was treating it as an investment, many crypto traders would double down on their bets. They made increasingly riskier moves trying to take advantage of what they assumed would be continually quick profits. It's a situation that's not sustainable in the long term.

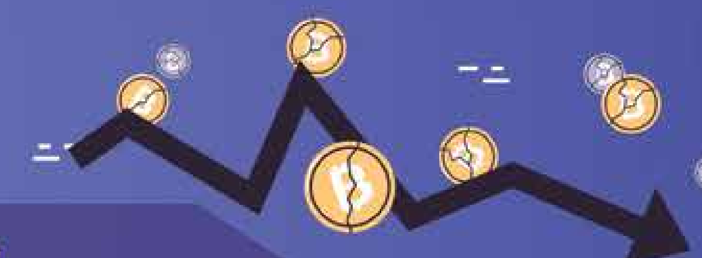
Crypto already had a unique systemic culture of risk-taking that isn't for the masses. But everyone knew someone who was getting in on the action, and that ultimately led to June's $2 trillion bloodletting. Whereas in previous crashes, it often felt like it was just some risky people making risky bets trying to get rich quick.

## OVER-LEVERAGING IS A PROBLEM

Crypto's unique culture of risk taking relies heavily on leverage. Traders often borrow increasingly bigger sums to place higher-risk bets, with crypto brokerage sites offering up to 100-200x leverage. It's something unheard of in traditional stock markets or banking because it's just too risky.

A bank would never loan you a $1 million mortgage on a house if you only had $5,000 collateral. But you could do that with crypto – and often, even the collaterals were guaranteed with other crypto. This risky situation only works as long as prices continue to climb. But if the market drops, it's a double whammy because the traders lose their highly leveraged bets on the crypto itself. The underlying collateral of the loans they took to underwrite the bets is also worth less. Ultimately, it undermines the financial stability of the entire system.

Ironically, what drove crypto's huge profits (in the boom times) were things like 200x leveraging, which no mainstream bank would ever underwrite in the first place. So ironically it was all the big institutional money pouring into crypto, chasing after big, risky profits, that created the impression of crypto becoming more mainstream and "safe" when it wasn't. This was arguably the final piece of the puzzle for explaining the size of last month's crash.



## THE CRASH THIS YEAR

As we all know, crypto's huge profits made daily headlines around the world. But there were also spectacular crashes.

In 2013, crypto had its first strike from a government, when China banned its banks from dealing with Bitcoin. As a result, the value of BTC dropped from $1,151 to over half that value in a fortnight. However, it made a spectacular comeback in 2017, when it was worth $19,497 by December. But that didn't last long, as it crashed by as much as 80% and took 18 months to recover. The period between 2017 and 2018 is infamously coined the "Crypto Winter."

Despite being hit by the pandemic, investors, traders, and founders were going full throttle in the early months of 2021. Bitcoin's value hit a record high of $69,000 per coin! This was on the back of a very confident investor market – there was a huge rise in DeFi platforms, NFTs, and games utilising cryptocurrencies. This then attracted all the big institutions, as people began to see crypto's use cases expanding beyond speculative trading into a real ecosystem. Everyone who hunkered down in their homes due to the pandemic wanted an alternative income – and this ecosystem gave them the perfect way in.

However, that rise didn't last long. Reflecting crypto's extreme volatility, June's crypto crash was almost inevitable.

But this time, it's also a result of macroeconomic forces.

In May, stablecoin TerraUSD broke and wiped out more than $500 billion from the crypto market. That contagion rolled over to other major digital assets such as Bitcoin, which lost more than 50% of its value since May.

The freezing of $11 billion in assets, followed by a bankruptcy filing by crypto lender Celsius Network (which some say was a scam), and the layoff of 18% of its full-time staff by bitcoin wallet Coinbase combined to plunge the market further down. To make matters more complex, we also have the war in Ukraine, the highest inflation in 40 years, the bearish stock market, and current monetary policies (e.g. the US Federal Reserve is expected to raise interest rates by a further 1% later this month, to rein in inflation) to add to the fire.

This is why this year's crypto crash is different from all the previous crashes. The 2017-2018 Crypto Winter was precipitated by a series of factors inherent to the crypto world. These include overleveraged investors and doubts about regulations. This time, the crypto crash is tied to the stock market and the economy more than ever before, triggered by the financial crisis linked to the Ukraine war.

## WHEN WILL THIS WINTER END?

Crypto began life as the domain of tech geeks, then speculators, and later, mom-and-pop investors. When it finally attracted institutional money, it gave it a veneer of credibility. In a sense, crypto supporters have gotten exactly what they'd been wishing for all along: it's become mainstream. But this means it's vulnerable to all the exact same forces as any other currency, stock market, or ecosystem.

Unlike past crashes – due to crypto's mass adoption in gaming, NFTs and elsewhere in the last few years – plenty of financial pundits think that interest in crypto shouldn't decrease as much as in 2018's Crypto Winter. With the necessary corporate policies and government regulations, cryptos could fully evolve into a new class of digital assets with unique economic properties.

Sure, the crypto market is composed of cycles, but it's unsustainable for any industry to maintain constant growth anyway. For newcomers, a crypto winter might feel like the bubble has burst. But has it? The blockchain industry has proven to be resilient in the face of crypto winters in the past. The question is, how long until spring arrives?

# IS THERE A VIABLE CAREER FOR FILM COMPOSERS?

BY PAUL NG

**When you watch a film, music helps convey the underlying emotions of a scene. Picture the synthesiser accompaniment to all those lonely space scenes in *Interstellar*, or the rousing soundtrack played during sword fights in *Pirates of the Caribbean*, or the melancholic music of every broken heart in a Nicholas Sparks melodrama.**

**These big budget films have commissioned composers to come up with the backdrop to amplify specific scenes in their films. But what about films with much, much smaller budgets? More often than not, they probably don't allocate budgets to hire a composer – even if for a few thousand dollars – to score the film. Especially not when they can simply purchase library music for just $5.**

**So with these limitations, how are young composers supposed to get the opportunity to make a living, hone their craft, and eventually climb the ladder to become the next John Williams? In the future, who's going to score the music to the favourite film you love? Where does that leave young composers who aspire to create soundtracks to great films and TV shows?**

## A RUNDOWN ON FILM COMPOSING

First, let's set a context for what's involved in film scoring. There's usually a process for composers. The first task would be to communicate with the film director and have them communicate their vision. Next would be reading the script or the visual storyboard to get a feel of the characters or scenes. Thereafter, they would create what's called "temporary music," which consists of about 10% of the actual composition work.

The main goal would be to enable the director to get a feel of the creative direction, and to be inspired for any scene changes. Different composers work differently. Some use a piano to draft ideas; others prefer to use virtual instruments to create a mock-up.
Next is the post production phase. Once all the film timings and scene changes are fixed, composers can do 90% of the actual compositional work, arrangements, instrumentations, and fine-tuning of virtual instrument mock-ups. On bigger film productions, this includes the recording of live instruments or a live orchestra. Lastly, it would be the fine-tuning and mixing for the film itself.

As you can see, there's a lot of work that goes in behind your film scoring. What composers do is both costly and very time-consuming. It could take anywhere from days to months to complete a film score, depending on the scope of the film. So, what is that worth?

## THE SINGAPORE CONTEXT

Singapore has a small film industry, which leads to small budgets, which forces film producers to economise. To put it bluntly – to cut corners. The best place to cut corners is on hiring creatives, and part of it being the music and composition. As a film producer, would you rather spend thousands of dollars on composition fees, or $5 on stock music?

Hollywood, or even Bollywood for that matter, have a lot of systems in place for music. But our film industry is still growing and developing. With this in mind, would a career in film composition in Singapore be viable?

"There're not a lot of requests for pure composition, which is why I'm super heavy into the production and artist side. And the remuneration is very low as well," according to local composer Tabitha Boon of Noivil Studios.

"Initially, when I wanted to do pure composition and orchestration work, I found that there weren't a lot of filmmakers hiring out there. If you look at Singapore, our film industry is really small, and budgets are even smaller. So for me, it wasn't very sustainable to dive completely into that. I shifted over to the more commercial side of things, just to make sure I have money to survive."
Fellow composer, Alex Oh of White Noise Studios, echoes the sentiment: "In my opinion, we are not compensated that fairly. I have a recording studio, so that's another source of income. I'm still doing music production, sometimes voiceovers, mixing, and also recording."

"If you think about it, the average Singapore film is made on [a budget of] less than a million dollars. In fact, a lot of them, a lot of indie films are made with less than $100,000. So sometimes the production quality can't match up," says Ting Si Hao, an accomplished composer. He's found opportunities overseas and is currently working on a mobile game project for Tencent, *"Honor Of Kings"*.

Interestingly, these composers are making a living through various means, but this also proves the point that as a composer, film scoring within Singapore is not a great option. It's tough, so in order to survive, you need to diversify and seek opportunities elsewhere.

## THE COST OF COMPOSING

When it comes to creating the score for films, it's not just the creatives that a production company has to pay. The composer just creates the music, but the sound still needs to be produced.

First, let's look at the cost of the sound production. Composers have the option of using a sample library or session musicians.

Si Hao frequently works with the Budapest Scoring Orchestra. "It's actually pretty inexpensive to record with an orchestra today. It costs something like US$1,300 for a half hour slot, and it's a 60-piece orchestra! These musicians come together, they read your music on the spot – there is no rehearsal – and they record music to a really professional standard. On the first or second or third read, you can usually use those as a good take. You can record about three to four minutes of music."

On the other hand, you could also use something called a sample library. It's basically a virtual instrument – like a violin or a piano – that allows you to compose and replicate the sounds of real-life instruments. A good sample library typically costs USD$500-1,000 for a perpetual licence. Sample libraries today, like Spitfire Audio, Orchestral tools, Cinesamples, and Native Instruments, have reached a level where you sometimes can't differentiate between what's real and what's not. They're basically a cheaper option to hiring real musicians.

So if you have the actual technical know-how and the music chops, you can actually write pretty impressive music for your portfolio. However, having live musicians is useful, especially to bring out the details and real-life human expression of the music.

## HOW MUCH DOES A COMPOSER CHARGE?

Besides the musicians and software, it's also not as crazy expensive to hire a composer in Singapore as you'd think. Alex says he usually charges 10% of a film budget. For example, for a $100,000 film budget, $10,000 would go to composition fees for (good) music composed by a good composer.

"I use the percentage as a gauge. I have to take into consideration how much work there is for me. Do I spend two months or three months on it? If I'm doing that amount of work, then perhaps a small amount doesn't make sense," says Alex.

For the composers, their time is money. Understandably, for film producers, budgets are everything. Do they hire someone for 10% of a film budget, or shell out just $5? That's the question that weighs on every aspiring film composer's mind.

## WHAT IT TAKES TO BE A COMPOSER

It's a well-worn cliche that artists – and composers – do what they do for passion. But passion doesn't pay the bills. A short poll among a class of music students showed that they're all in it for the arts, over wanting to make a living out of it. It goes to show that a lot of creatives hurt themselves because they don't really think about the future consequences.

How are we going to put a value in our work if we're in it just for the creative?

For both Tabitha and Si Hao, their advice is to diversify and be open to new things, and new global opportunities. Basically, don't limit yourself to a certain box. If you tell yourself, "I only want to score music for animation," chances are it'd be very limited if you're going to stay in Singapore. So, broaden your horizons – there may be opportunities in the realm of industries like advertising, gaming, or even composing for music libraries.


# THE RISE OF CONSUMER-TO-CONSUMER (C2C) BUSINESSES

**BY ASHLEY OW**

**Have you or someone you know recently bought or sold something on Carousell? How often do you shop online from individual sellers, such as on Shopee, Carousell, and Facebook Marketplace, instead of physical stores and established companies?**

**According to McKinsey and Company, the annual growth of e-commerce is estimated to rise until 2024 by at least 8 to 9% in France and Germany, 6-7% in the United Kingdom, 10-12% in Italy and Spain, and more than 20% in Asia. To take it a step further, the consumer to consumer (C2C) business is estimated to grow by 25% in the next four years.**

## HOW IT WORKS, EXAMPLES & PLATFORMS

So what exactly is the consumer to consumer (C2C) business model? It's when consumers buy directly from another individual who both sells and shops on platforms. Some familiar examples include AirBnb for holiday rentals, Fiverr for freelance services, Carousell for pre-loved products, as well as Facebook Marketplace, eBay, and Shopee for many other things.

These platforms commonly act as mediators for buyers and sellers to connect and perform transactions. It allows the seller to set up their e-commerce shops and start putting up listings and services with ease, without paying hefty rental fees for the physical store. For example, platforms like Shopee take a 2% transaction fee from the final amount from sellers, while Carousell collects a 2.5% of the item and delivery amount from their buyers as protection fees.

This ease of accessibility also in turn allows buyers from all over the world to shop at lower prices with the reduced business cost.

## SINGAPORE'S BIGGEST C2C PLATFORMS: SHOPEE AND CAROUSELL

The most famous local shopping platforms that started out as C2C marketplaces in Singapore include Shopee and Carousell. According to Similarweb, in May, these two sites were ranked locally at number 1 and 2 respectively under the e-commerce category. They were initially launched as C2C platforms, before partnering with brands and companies a few years later to also include the B2C (business to consumer) business model to expand their reach.

Shopee has since grown to make $1.0B in annual revenue, and Carousell's annual revenue is estimated to be up to $50.0M. Both platforms boast an average of 13 million to 13.8 million local monthly site visits in the last month, from both mobile and desktop. Both sites, especially Carousell, are still quite known to be very C2C-focused platforms, especially for reselling items.

It's not just the sale of new and secondhand items (like watches or furniture) that can be lucrative. Trading valuable, limited-edition items can be great business too. This was proven by Remus Er, a Singaporean teen sneaker reseller. He rakes in as much as $20,000 to $30,000 per month reselling limited-edition sneakers, sometimes even collecting a 300% profit margin through Carousell.


## PROS AND CONS FOR SELLERS AND BUYERS

With the seemingly straightforward consumer-to-consumer business model, it comes with its pros and cons for both the seller and buyer as well.

### PROS FOR SELLERS

- Potential to attract buyers and sellers from all over the world
- Easy and reduced cost to set up businesses for individual sellers
- Generally high profit margins
- Easily sell both first and second hand items

### CONS FOR SELLERS

- Payments may not always be secure, scammers can still appear
- Platform fees are charged typically to sellers
- High competition, since more people are doing it
- Reviews can impact sellers on varying degrees

### PROS FOR BUYERS

- Reduced purchase costs for buyers
- Usually has no hidden costs
- Wider range of choices
- Easy to compare products and prices

### PROS FOR BUYERS

- Lack of quality control since platforms are merely mediators
- Handling of service and quality of products from may vary across sellers
- Lack of secure payments via credit cards
- Items could be lost or damaged during shipment

The C2C business model is a lucrative market. Even with companies like Shopee and Carousell incorporating B2C to adopt a hybrid business model, many sites including AirBnb, Fiverr, Etsy, eBay, and Craigslist remain popular.

Homegrown brand Carousell was inspired by 3 people wanting a platform that could sell their pre-loved items. Even Facebook launched Facebook Marketplace to tap into this growing market. Other factors include the increasing trust in e-commerce, the rise in online shopping, and the pandemic which forced many to turn to purchasing cheaper, pre-loved items. When these factors come into play, it's no doubt that C2C businesses will continue to grow.

# THE COST OF GOING TO SPACE WITH SPACE TOURISM


BY PAUL NG XIN KAI

Space: the final frontier. These are the hopes and dreams of humankind. Our lifelong mission: to explore beyond what we know, to seek out new answers in our galaxy. The famously aspirational opening line of Star Trek was originally aired in 1966, and nearly 60 years later today, it feels almost endearingly naive.

These days, depending who you ask, space is increasingly seen as either a future for humanity, or a tourism destination. Governments and various corporations are willing to go to the lengths of investing time, effort, as well as taxpayers' money to explore our galaxy. Everyone – from the US, China, and Russia, to billionaires like Elon Musk, Jeff Bezos, and Richard Branson – is looking to carve a piece of the action.

As it stands, Blue Origin has just successfully launched its fifth flight with a crew into space. Their goal: to create a future where people can live in space one day. But with a ticket price of USD$200,000, is it really feasible? Plus, with our current global geopolitical situation, and profit-driven interests of private space companies, what does it take for us to reach for the stars?

## THE CORPORATE SPACE RACE NEEDS TOURISM

During the Cold War, it was "do or die" which drove innovation in the space race. Our biggest innovations these days, in almost every area, seem to be profit-driven by private companies. Even NASA has farmed out space flights to the ISS to private companies who can do it cheaper and more efficiently.

Just last year, private space companies received nearly US$15 billion of private investments — including a whopping US$4.3 billion in the fourth quarter. The amount has more than doubled from 2020 as investors continue to bet on the "space economy."

Those in the space industry are increasingly looking towards space tourism as a business model. There are companies that focus on getting passengers into space, as well as those housing people in space. Some are even providing space hospitality services.

To make space tourism viable, companies will need to make space more accessible to the public in terms of cost and safety.

## HURDLES OF SPACE TOURISM

Travelling to space isn't as simple as stepping into a rocket. In addition to being healthy, NASA astronauts need to be qualified scuba divers, do military water survival training, and undergo swimming tests. Their training includes exposure to high and low atmospheric pressures, and a low-gravity environment.

Once they're in space, the environment will tax their bodies: bones become less dense, and muscles weaken. They have to exercise at least 2 hours a day to maintain what they have on Earth. Astronauts on board the ISS are exposed to radiation, zero gravity, and countless dangers, including psychological health issues.

If space tourism is ever going to really take off (no pun intended), then there will need to be options that are less taxing on the body.

For instance, Space Perspective is a luxury space-tourism company that "floats" passengers to suborbital space in a vehicle that resembles a hot-air balloon. This eliminates the dangers of high-G exposure and vibrations of rocket travel. If all goes well, the first flights are scheduled for 2024.

Even if we do get the vehicles to be more human body-friendly, there's still one more huge issue to address: the cost.

Even if we do get the vehicles to be more human body-friendly, there's still one more huge issue to address: the cost.

## THE COST TO BLAST OFF

The goal in the future is to drive the price of space travel to hundreds of dollars per kilogram. And it looks like we're heading the right way with reusable rockets that SpaceX uses. Scientists are also exploring other forms of accelerators, like electric rockets powered by plasma.

Ironically, a highly efficient propulsion technology already existed in the 1960s. NASA's NERVA (Nuclear Engine for Rocket Vehicle Application) used a nuclear reaction instead of an inefficient combustion process – and it doesn't spew radioactive ash or anything of that sort. Sadly, the programme was defunded after the space race ended.

For now, the availability of space tourism is only for the rich. SpaceX recently sent a group of four private citizens into orbit for a first-of- its-kind trip to the International Space Station (ISS). The trip was organised by Axiom Space, a private startup that's booking trips to the ISS for anyone who can afford it. Each passenger paid a cool US$55 million for their all-inclusive space package!

One has to bear in mind that getting there takes a big chunk. Virgin Galactic's space flights are currently priced at US$450,000 per passenger, Blue Origin's is currently US$200,000, and Space Perspective will float you into space for US$125,000.

Once you're in space, what do you do? You'll probably need a place to stay and enjoy the view. Enter space hotels.

## WHAT WE HAVE IN SPACE NOW

We've had a continuous human presence in space on the International Space Station (ISS) since 1998. Over those 22 years, we've built an amazing orbital outpost and continue to operate it as an orbiting laboratory. It also recently became a hotel for Axiom Space customers. While there's been plenty of talk of decommissioning the ISS, we've extended its lifespan from its original end date of 2020 to 2024, then to 2028, and now to 2030.

But with rising geopolitical tensions and the recent war in Ukraine, future inter-government collaborations like the ISS are at stake. Russia recently announced plans to pull out of the ISS programme by next year. It is currently responsible for a huge segment of key ISS infrastructures, like its propulsion and navigation guidance systems.

So what other options are out there? We may need to look at the moon.

## SPACE TOURISM IN THE FUTURE

The moon is a very possible site for human habitation. One of its selling points is that it's not very far from Earth. This makes it convenient if something isn't going right, or if you need a resupply mission.

There's currently an international partnership with NASA under the Artemis programme that's intended to take humans back to the moon. It's been over 50 years since mankind last stepped on this lonely rock. The purpose of Artemis is to establish a permanent and semi-permanent human presence in the lunar system. This includes a space station orbiting the moon, as well as periodic activities on the surface of the moon.

There are also plans to open a new space hotel on the moon by 2027. Interstellar Lab is working on producing inflatable, climate-controlled "biopods" which can be deployed like tents. They're self-contained ecosystems that'll allow humans and plants to grow even in space. If these work, they may also provide a life support system for life beyond the moon.

The moon is actually a very attractive stepping stone for interplanetary travel. Since it doesn't have an atmosphere, you can operate centrifuges and mass drivers to launch stuff without any propellant on board. This means you can launch off the moon with a third less energy than you need to launch from Earth. In essence, you can get into different trajectories faster and carry more payload, keeping things cheaper.

So in effect, the moon may eventually be the Changi Airport of the solar system. In the next 10 or 15 years, we may even have larger scale spaceflights for tourists.

## BEYOND THE MOON

Looking beyond the moon, the next target that everyone talks about is Mars. The UAE (who currently has a satellite orbiting the red planet) as well as Elon Musk wants to colonise it. If we do, it would be the biggest undertaking in human history.

Given that governments and geopolitics change, Mars as a multi-generational public project probably won't do well, as priorities change from administration to administration. This means the only group with an incentive to innovate is probably the private space industry.

If it already costs US$55 million just for a trip to the ISS, what would a trip to Mars cost? Ever the optimist, Elon Musk has reiterated his aims to colonise Mars by building a self-sustaining city of a million people on the planet by 2050. And the cost for a ticket there on SpaceX? He estimates it to be between US$100,000 and US$500,000, if you'd believe it.

Futurists are optimistic that in about 100-200 years' time, the average person can have a vacation in outer space. Even with the optimism, space itself is an expensive endeavour and isn't something too accessible to everyday people now. But if you think about it, humanity has been around for roughly 1,000 generations, and we're the first ones where private space travel exists. Never mind that we'd need at least US$200,000 to get there.

# THE BUSINESS OF "BUY NOW, PAY LATER" APPS

BY ASHLEY OW

From Atome to Hoolah and OctiFi, there's now a whole slew of 'Buy Now, Pay Later' services on the market. Similar to credit card 0% interest instalment plans, these services let you split big ticket purchases into multiple small payments. How do they work, and how would they affect how you buy things?

Whether you're shopping online or in person, you can't help but notice new methods of payment. With companies like Atome, Hoolah, OctiFi, and Grab offering Buy Now, Pay Later (BNPL) payment models, you might wonder how these methods of payment compare to paying with credit cards, but on mobile. And with the ease of transaction through these types of mobile payments, how would it affect consumer habits?

According to a 2021 finding, an estimated 1.1 million of the population, or 38% of Singaporeans, have used a BNPL service. And over a quarter of those who did (27%) suffered financial hits with the service.


## HOW IT WORKS FOR CONSUMERS

As similar as it sounds, it's not the same as paying with credit cards. So how does paying later with your mobile phone compare to paying with a credit card?

In both cases, the cost of purchase will be split into several instalments with a fixed amount of payments over a set period of time. BNPL consumers would pay the first instalment upon purchase, and the remaining amount is essentially 'loaned' from the BNPL provider and repaid in instalments in the subsequent payment period. It's often interest-free.
Hoolah, OctiFi, and Atome split their payment into three instalments, while Grab splits the amount into four.

The main difference between the BNPL model and paying with 0% interest credit card, besides paying with a mobile phone, is that you get to bring home whatever it is that you're paying for immediately. It also doesn't affect your credit score. That means people with low credit or unable to get a credit card would gain access to these forms of payment as well.

## HOW BNPL COMPANIES EARN MONEY

With the interest-free instalment model, BNPL companies like Grab, Hoolah, and Atome earn money not from the consumer, but from the retailer. These companies earn between 4% to 9.5% for each purchase, promising an increase in sales with the merchants as they provide accessibility to payments from a large range of audiences, especially as Generation Zs tend to shy away from credit cards. This amount is typically higher than that of credit cards as well, which varies between 2% to 4%.

## ADVANTAGES AND DISADVANTAGES

While it may seem like an easy way to shop and reduce costs upon payment, like all things, there are advantages and disadvantages to this payment model.

### ADVANTAGES:

- Customers can shop with easy, instant approval without the companies checking your credit reports for several considerations.

  These include checking how often your debts and bills are paid on time, how much credit you're juggling, and how long these credits have been managed.
- Easy accessibility even for those without credit cards
- Interest-free purchases with the remaining amount paid in instalments clearly stated
- Easily integrated into many shopping apps and stores
- Helps make any purchase more affordable

### DISADVANTAGES:

- Can easily cause overspending in consumers since the amount spent is seemingly small upon purchase
- Not all retailers accept the BNPL payment model
- Potential hidden costs such as late payment or missing payments lead to suspension in accounts and additional payment charges, and can affect credit scores past the interest-free periods.
- Users can easily incur big amounts of debts upon late or missing payments
- Return policies can get confusing for customers. In some cases, the customer might still need to keep paying the instalments until the return and refund is verified with both the retailer and the BNPL provider.

## HOW THIS CAN AFFECT CONSUMER HABITS

With time, consumer habits could be shaped by the ease of transaction with the BNPL payment model. Some scenarios that could potentially happen are overspending, inclination towards buying pricier items, and regretting expensive purchases. In a recent survey, it's shown that 57% of BNPL users regret an expensive purchase, with half of this number of users being behind on payment.

In the latter scenario, it seems fairly easy to incur additional debt with late or missing payments on top of the pricey instalments that come with the purchase. For instance, Atome suspends the account upon a missed payment and imposes a $20 admin fee. An additional $10 is charged if the outstanding payment is not paid within a 7-day window. Grab, on the other hand, imposes a $10 fee to reactivate the suspended PayLater account. If users fail to make further payments, the debt will be reported to debt collecting companies and affect the users' credit scores.

Both BNPL and credit card payment services offer customers the opportunity to buy more and give merchants access to more customers. If history is to repeat itself, would we see a trend of rising BNPL debt the way we see credit card debt (which was S$371.39 billion in July 2021 in Singapore) – but among a younger demographic? How will BNPL customers' debts affect household debt?

With the rise of these payment models, it's important to read the fine print as well as terms and conditions before committing. While the collection of points, rewards, and vouchers that come with these payments can be attractive, there are as many as 783,000 Singaporeans, or 27% of the population, who have faced financial difficulties as they use the Buy Now, Pay Later model.