Chairman and Council members of ABS,
Ladies and Gentlemen,

I would like to thank the Association of Banks in Singapore for inviting me to the anniversary dinner tonight.

2 For 45 years, you have facilitated fruitful collaboration among your member banks, served as a bridge between the industry and the regulator, and represented Singapore banks internationally. Congratulations for the good work you have done, and we look forward to the continued success of ABS.

3 Today, I would like to talk about the electronic payment scene in Singapore – how far we have come, our key considerations in developing e-payments in Singapore, and the next steps forward.

E-Payments are Better than Cash and Cheques

4 Cash is easy and familiar to use. It is also part of our culture, when we give it in red packets during Chinese New Year and weddings, or green
packets during Hari Raya Puasa. I believe cash will be around for a long time. Our aim is not to be a cashless society, but to use less cash and more e-payments.

5 This is because e-payments have significant advantages over cash and cheques. As a mode of payment, it is far more convenient and efficient. Imagine the long queues to board buses if instead of tap and go, people are still digging into their pockets at the entrances; or instead of using internet banking, going to the post office every month to pay for your utilities and hand phone bills, and I know some people still do that.

6 For businesses too, e-payments are better than cash and cheques. They help increase efficiency as you cut down the time and effort in counting cash, reconciling money in the cash register with items sold, carrying that money to the bank or encashing cheques. Further, funds collected electronically will be credited directly to bank accounts, which is much safer.

**Singapore E-Payment Journey**

7 Today, e-payments are associated with e-wallets, or various tap-and-go payment modes. But Singapore has embarked on the e-payment journey for many years now, in keeping with technological advancements and changing consumer and business needs, thanks to the collaborative and innovative efforts of our banking industry, payment service providers, and the regulator. Let me give a brief run-through of our e-payment journey.
The journey started in 1984, when we adopted GIRO, as a low cost means for billing organisations to collect payments. I recall family members and relatives scoffing at the system, describing it as opening up your wallet for people to take your money. The human instinct of distrusting the unfamiliar, especially when it concerns your hard earned money, has not changed. But over time, the public has learnt to trust and embrace the convenience of GIRO.

In 1986, NETS introduced the Electronic Funds Transfer at Point-of-Sale, or EFTPOS. This allowed consumers to use their bank-issued ATM cards to pay for their purchases at shops and restaurants by keying in their personal identification numbers (PINs). My family members were amused by the system, because you can buy things without cash.

In the late 1990, with the implementation of the Electronic Road Pricing (ERP) system, a conscious decision was taken by the Government to use the ERP to promote e-payments in Singapore. So NETS launched the CashCard in 1996. It can be loaded up to $500 to pay for ERP and car park fees, but unfortunately not many uses beyond that.

In 2002, LTA subsidiary EZ-Link launched the ez-link card for payment for public transport. In 2009, NETS launched the FlashPay card, which could be used for both public transport and the second generation of in-vehicle units in cars. The integration of ERP and public transport payment modes were very welcomed.

But NETS EFTPOS and GIRO continue to be the preferred C2B (consumer to business) modes for e-payment, as they debit directly from
the bank account without the need to top-up, and people find them safe and convenient.

13 Then, some years ago, the C2B payment landscape further evolved. Credit card companies innovated and introduced the contactless or tap-and-go mode of payment, doing away with signatures for transactions below a certain value. This service was further enhanced when credit card details could be digitised and securely captured in a smart phone, which marked the advent of ApplePay and Google Pay.

14 In 2014, we made a breakthrough in enabling e-payment for C2C, consumer-to-consumer or person-to-person mode. This was made possible through the Fast And Secure Transfers system, or FAST.

15 At that time, the dominant C2C payment mode was actually using cash to pay each other. FAST was among the first of its kind in the world, and a real game changer for C2C payments. It enables direct real-time transfers from one bank account to another, even across banks. And it is available 24/7. FAST would not be possible without ABS and the Singapore Clearing House Association chaired by MAS working together to develop the system.

16 FAST is an infrastructure, upon which we can add features to provide more conveniences. Consumer convenience took a leap forward in 2017 with the introduction of PayNow. PayNow does away with the need to know a person’s bank account number when you make a fund transfer. You only need to know either the mobile or NRIC number. So I can now send payment to my friend in three simple steps on my mobile phone, using the app and my phone contact list.
17 The take-up for PayNow has been good. Today, there are more than 1.4 million PayNow registrations, and nearly $900 million have been transferred via PayNow since its launch last year.

18 More recently, NETS launched its mobile application – NETSPay, which allows users to digitise their ATM card into their smart phone. They can then use their phone for payments by tap-and-go, or scan-and-pay through a QR code. So no more keying of PINs for transactions below $100.

Not Just Convenience, but Competition and Innovation

19 As you can see, there is quite a number of e-payment options in Singapore, developed through the years.

20 Some Singaporeans feel that our e-payment landscape is confusing because there are so many options out there. For C2B payments, you can tap-and-go or scan-and-pay using NETSPay, credit cards or smart phones. Today, there are also a multitude of e-wallets and stored value cards offered by banks, gaming companies, transport service providers, even food courts and hawker centres.

21 Ultimately, it could be a matter of getting used to the many choices we have and each of us settling down to use one or two modes that we are comfortable with.

22 But what can be really frustrating is that each e-wallet or card operates on a standalone basis, and can only be used for payments to
specific merchants. For consumers, you may top-up money into an e-wallet to pay at one store, and find that it cannot be used for payment in another. For businesses, you need to display separate QR codes to accept payments from PayLah!, Dash, Alipay, WeChat Pay etc., and that is assuming consumers know how to navigate through these e-payment labyrinth.

23 Actually, most countries also have a variety of e-payment options. But in some countries like China, one or two large players dominate the market and with one or two e-wallets you can make e-payments everywhere. Some Singaporeans wonder if such a situation is better.

24 But there are good reasons why the e-payment landscape for Singapore is different. One reason is that e-payment has been an ongoing journey for us, and as I have explained earlier, many competing e-payment modes have emerged over the years. In countries like China, where e-payment is much more recent, they simply leapfrogged the previous technologies and payment methods.

25 More importantly, we have deliberately taken a different approach so as to allow more competition and innovation in the payments space. Having one or two players dominate the market brings short term convenience to consumers, but in the context of Singapore, there will be significant downside risk in the long term due to a lack of competition, especially when the dominant player wields significant market power, and owns all the transaction data and customer information. Over time, this can slow down the rate of innovation, and give rise to the risk of unfair pricing for customers.
That is why we did not try to consciously develop or promote one unified payment solution. Instead, our goal is to allow for a variety of payment solutions that are competing yet inter-operable and convenient, providing choice to consumers and encouraging innovation. That is the key principle in our approach to e-payment: many choices but inter-operable.

However, to bring this about, we need to go through the current period of proliferation of e-payment options, before the landscape consolidates and the situation settles down. Let me explain why.

MAS worked closely with the banking industry to develop the backend infrastructure, namely FAST and PayNow. It took some time to ensure that they are inter-operable, which all banks can plug into to provide their e-payment services and compete against one another.

This will avoid the situation where a single commercial player dominates the market and shuts others out. While not entirely analogous, it is the same approach we have taken in the power and telecommunications sectors. In these sectors, we ensured that the backend infrastructure – the power grid and landline networks – are accessible to all market players.

Similarly, the Government is currently developing the national digital identity system and sensor network as public infrastructure that is accessible to all players, who can then offer their own value-added services. Such an approach takes more time, but it lowers the barriers to entry for small players, promotes competition and innovation, and provides consumers with more choices.
Likewise, in e-payments, the backend infrastructure ensures inter-operability, so that competition and innovation can take place at the front end. And it is the front end interfaces that determine consumer convenience.

We have made good progress in enhancing inter-operability and reducing the frictions that cause inconveniences to consumers and businesses in a multiple player environment. But we are not fully there yet. Let me share with you what has been done and what is coming next.

**Making E-Payments Easy for Everyone**

The first initiative is the introduction of the Unified Point of Sale (UPOS) terminal in 2016. It will accept whatever your preferred e-payment mode – be it NETS, regular debit or credit card, contactless cards, ApplePay or Google Pay.

MAS and the industry have been working hard to deploy these UPOS terminals across the island. Today, there are around 40,000 UPOS terminals – in supermarkets, fast food outlets, petrol stations, department stores and taxis. Increasingly, we are seeing just one UPOS terminal when making payments at merchants. One device to tap and go. No more standing at the cashier wondering which device to tap.

In time, when LTA enhances the public transport payment systems, bus and MRT fare readers will also behave like a UPOS.
Second, the SG QR will take effect later this year. This is a standardised QR code, developed by an industry taskforce co-led by MAS and IMDA. All service providers, including e-wallet providers, will have to adopt SG QR for scan-and-pay. With the SG QR, consumers will be able to scan a single QR code regardless of e-payment platforms they use, be it NETSPay, Dash, Grab or PayLah!

SG QR will also bring significant convenience to merchants, who now only need to have one QR code to accept payments across all platforms. SG QR can potentially spur the use of e-payments in an exponential way, because a merchant does not have to incur cost on payment devices, and simply needs to display his QR code to receive payments from his preferred e-payment schemes.

Third, and as mentioned earlier by Chairman ABS, the industry will extend PayNow, which is now a service to consumers, to also businesses. This means businesses will be able to link their Unique Entity Number (UEN) to their bank accounts, and you do not need to know the firm’s bank account number to pay it.

If we combine this PayNow enhancement with the SG QR initiative I spoke about earlier, from the customer’s perspective, this means any merchant can incorporate its UEN into SG QR, and a customer simply needs to scan it with the mobile payment app in his smart phone to effect a payment transfer from the customer’s to the merchant’s bank account. With PayNow on board, it provides a simple, swift, safe and seamless C2B scan-and-pay option.
This means every departmental store, neighbourhood shop, hawker stall, or school student soliciting for donations to charity, can accept scan-and-pay e-payment.

It will be like what consumers are experiencing in China, where they scan QR codes for payments everywhere, but with a few crucial differences. Payment deduction is directly from our bank account and not through an e-wallet. And there will be one standard QR code throughout Singapore – I believe no other country has this.

Fourth, PayNow will also now enable businesses and organisations to make mass disbursements to individuals, or B2C (business to consumer) payments, through their mobile or NRIC numbers. There are various possible applications, such as salary crediting, insurance payouts, or giving out awards.

Earlier this year, MOE piloted the disbursement of Edusave Award to students via PayNow. Shortly after recipients received their certificates on the stage, they got SMSes notifying them that the award money has been credited into their bank accounts. There is no need to visit a bank branch, or to deposit cheques and wait for clearance. PayNow has made the experience for Edusave Award simpler, faster and more delightful.

Since March this year, eligible CPF members over 55 years old can also receive their lump sum withdrawals using PayNow. Linking your NRIC to your bank account means you can receive these disbursements more quickly and conveniently via PayNow. For businesses and organisations, it also means no need to separately collect or maintain bank account details from individuals.
With these benefits in mind, we are working with the industry to make PayNow registration easier for Singaporeans, by extending the registration modality, from internet and mobile banking to alternative channels such as ATM and SMS.

In addition, those who link your NRIC to your bank account before the disbursement of SG Bonus at the end of the year can expect to receive the money earlier via PayNow than through direct bank crediting or cheques. Government agencies are actively exploring using PayNow for other disbursements.

**Making E-Payments More Accessible**

Convenience is a major factor to promote the use of e-payments. But for various reasons, not everyone is able to enjoy this convenience. These include concerns about safety and security, a habit of using cash, or unfamiliarity with new technologies.

I will not generalise these as concerns of the seniors, because I have seen so many seniors who are eager to learn technology and use e-payments, and so many young adults who are creatures of old habits!

Regardless of the demographics, we will take steps to help address these concerns. The first priority is to ensure that as many Singaporeans as possible have bank accounts, the key enabler for e-payments.

To make it easy and affordable for Singaporeans to open bank accounts, since 2002, major retail banks have offered Basic Banking
Accounts (BBAs) with low initial deposit and minimum account balance requirements.

51 For example, no initial deposit is required for the opening of the POSB Everyday Savings Account. The bank also waives the account balance fall-below fee for the elderly, the young, recipients of government financial assistance and Full-time NSmen.

52 MAS is working with the industry and community leaders to raise the awareness of BBAs, and bring on board those who still do not have bank accounts.

53 Another group who may need additional help are those with bank accounts, but lack the confidence to use e-payments. The public sector is taking the lead to raise their digital literacy and familiarity with new technologies.

54 For example, IMDA runs the Digital Inclusion programme to provide education and e-payment access to members of public who need help. The Silver Infocomm Initiative offers customised training programmes, and the SkillsFuture for Digital Workplace equips Singaporeans with basic digital skills required at the workplace and in their daily lives.

55 Finally, MAS will be introducing a new Payment Services Bill later this year, to enhance the payments regulatory regime and strengthen safeguards against risks.

56 The Bill will identify all activities along the e-payment value chain, such as e-money issuance, domestic funds transfer and merchant
acquisition by payment platforms, and will regulate them under a single framework. Many of these activities are currently either not regulated or lightly regulated.

57 The Bill will strengthen the standards of consumer protection, anti-money laundering controls, and cyber security related to payment activities. The requirements will be calibrated to be proportionate to the risks posed by each activity, hence encouraging new ideas to flourish and engendering confidence in using e-payments.

**Conclusion**

58 The take-up rate of e-payment has been promising. Consumers are increasingly favouring e-payments. More than 8 in 10 Singapore consumers have adopted e-payments and almost 3 in 5 Singapore merchants are accepting e-payments. On its own, the value of e-payments measured by FAST and card transactions has been growing by more than $10 billion every year. The use of cash and cheques has been coming down steadily in recent years. Indeed, cash withdrawals at ATMs have been coming down, by more than $300 million every year.

59 As recently as 2015, ATM cash withdrawals were almost 60% of e-payment transaction value measured by FAST and card payments. This came down to about 40% at the end of 2017. Let us aim to bring this down to 20% in 2020. We don’t need to be literally a cashless society – some people will always find cash useful – but we certainly can transact with a lot less cash and we won’t need to visit the ATM so often.
60 However, we should aim to eliminate cheques. The volume of cheque usage is already declining. The share of cheques as a proportion of all payments using FAST, GIRO and cheques was about 28% in 2017, down from 37% in 2015. Let us aim to bring that down to 15% in 2020 and become a cheque-free society by 2025. Sweden has done it. We can too.

61 These targets are doable. E-payments will further proliferate as we implement the transformative steps I just described. I do not think its adoption will be linear. When the level of convenience and confidence crosses a critical tipping point, adoption will rise across our population within a short time and become pervasive.

62 The aim is not to force a cashless society, but to enable everyone to enjoy the convenience and efficiency of e-payments – simple, swift, safe and seamless. Let us work together to realise this vision of a better payments landscape for individuals and businesses, where e-payments are possible for everyone. Thank you.