

ADVANCEMENT

MONEY, MONEY, MONEY

Money is the invisible glue that holds societies together. *Sphere* takes a walk through the history of money and onwards to the new Ant Financial-CKHH joint venture, AlipayHK.

Money. There is nothing like it. It is as necessary to civilisation as the invention of the wheel and fire, and yet is a completely imaginary construct. Someone, somewhere, came up with the idea that one thing could be used to represent the value of everything, freeing us from the constraints of barter. That person then got others to buy into that vision, and money was born.

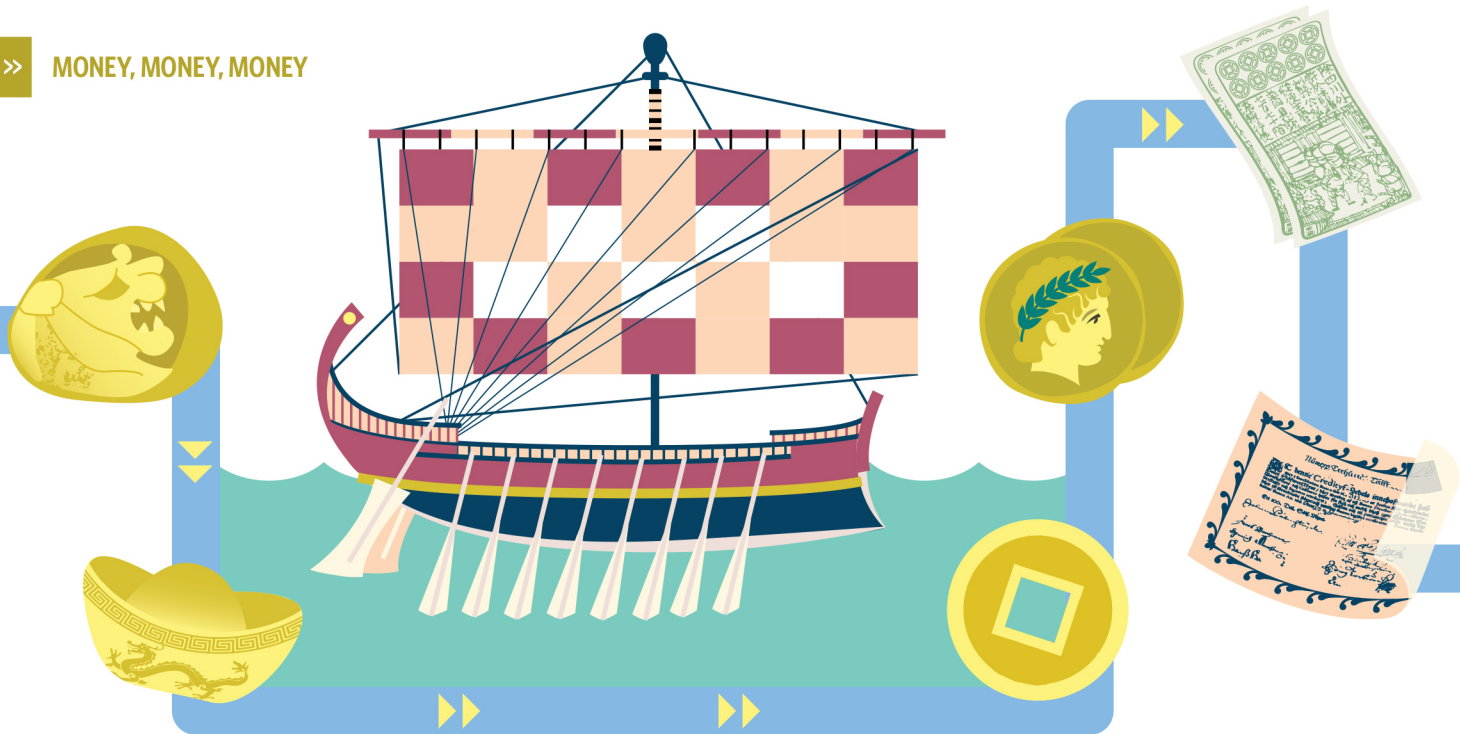
From cowrie shells to digital payment, money has moved with the times. *Sphere* takes a walk through the history of money and takes a peek into its future.

Barter got the job done for primitive societies, but was hugely limiting. What was bartered had to be transported, making large-scale barter impractical.

Goods like tools, weapons and animal skins may have been exchanged, but lacked most of money's principal benefits as:

- a medium of exchange
- a unit of accounting, allowing us to put a price on something and measure our access to resources
- a store of value - that is, it persists over time.

Proto-currencies with some form of standard measure included things like cattle and salt, but these lacked the full benefits of money per se. Early currencies based on pre-existing objects (that is, not produced to be money) included shells, like cowrie shells, that could be threaded together on string. From Africa to China,



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shells were a medium of exchange for hundreds of years, even into the 19th century, and were an important part of the slave trade in Africa.

The Chinese were among the first to use objects manufactured to represent value, probably during the Shang dynasty, when bronzed shells – bronze copies of cowrie shells – were used to represent real cowrie shells as early as 900 BC. Later, bronze objects were created in different shapes – ranging from miniature shovels to spears – to represent different values.

The first round coins, however, are believed to have been minted by King Alyattes in Lydia, now part of Turkey, circa 600 BC. They were made of a silver-gold alloy stamped with the head of a lion. Numismatic experts (scholars of coins) consider an official mark to be a key characteristic distinguishing a coin from other representations of value, and the Lydian Lion is the mark of the king, making this, in their eyes, a true coin.

Empires around the world soon started using this form of currency. Their control of it also enabled them to profit from its manufacture and, sometimes, its debasement.

TRUST ME

Governments have traditionally been the defender of the privilege of manufacturing official currency. Taxes, in particular, had to be paid in the official coin. When coins were made of valuable metals, the amount of metal and its purity needed to be maintained so people could trust the

currency. Governments have, however, debased their coinage for different reasons at different times.

An Athenian loss to Sparta in 407 BC saw 20,000 silver-mine slaves released, causing a silver shortage. The Athenians resorted to creating bronze coins with a thin exterior plating of silver. This drove people to hoard the valuable silver coins and to use the cheaper bronze coins instead so as to get rid of them.

More commonly, individuals would try to shave valuable metals off coins and then pass them on, keeping the shavings for recasting. This practice, from ancient times to the nineteenth century, was punishable by harsh penalties, even death. However, monarchs were not above the practice, from Roman Emperor Nero and his successors to King Henry VIII in England. Succeeding rulers, such as Queen Elizabeth I, often had to clean up the fiscal mess of their forebears by establishing new, trusted coinage of the realm.

PAPER IT OVER

Promissory notes used by merchants in Sichuan in the Tang dynasty (~AD 800) became so popular that the government decided to issue its own paper notes. This 'flying money' as it was called, wasn't exactly money in that each document was unique (not standardised), but merchants would exchange them among themselves. The early Song dynasty saw the issue of genuine paper money (~AD 1024). This was backed by an equivalent amount of coin held by the



government, and counterfeiting was illegal.

European paper money had its origins in Sweden where the Bank of Stockholm produced paper money, in collaboration with the royal government, in 1661. It was backed by valuable metals – but not enough of them. Mismanagement saw the bank collapse in 1668, and its founder, Johan Palmstruch, was sent to jail.

BACK IT UP!

As European banks took up banknotes, they were always backed by a valuable metal held by the banks. For centuries, silver had been the standard metal, in particular Spanish ‘pieces of eight’, a silver currency that emerged as the world standard rather than similar European contemporaries. One of those contemporary currencies was the German ‘Joachimsthaler’ which became ‘thaler’ and then, in English, ‘dollar’.

Isaac Newton, of gravity fame, was master of the Royal Mint (of the UK) when he introduced a mixed silver-gold standard, but the UK became a gold-only backed currency by 1821. The United States was also on a bimetallic standard until silver shortages forced it, like many countries, to belatedly go for gold in 1900. The new country of Germany chose gold in 1871, and France, Japan and others followed.

EVERYONE'S TALKING MONEY!

During the 1900s, people took on a greater understanding of how money could impact their lives, and it began to appear in pop culture. The book,

The Wonderful Wizard of Oz (published in 1900), predated the movie by around 40 years. In the original, Dorothy wore silver shoes and walked on the Yellow Brick Road, allegories for the silver and gold standards being debated in the US at that time.

Even the James Bond movie, *Goldfinger*, had monetary theory at its heart as the supervillain planned to irradiate Fort Knox, where the US gold reserve was held, thereby destroying the American currency base and making his own gold holdings even more valuable.

MODERN MONEY

While the gold standard may have become a thing of the past, fiat currency – or money by decree – hasn't lost its hold on our imagination or our lives. Musicians query our relationship with it in song, from Money, Money, Money (ABBA), Money (Pink Floyd), to Mo Money Mo Problems (The Notorious B.I.G.).

Technology has also changed how we relate to money. Credit – and access to it – has again accelerated the velocity of transactions. At one time, all extension of credit was between two parties – lender and borrower. Credit cards changed that.

GIVE ME SOME CREDIT

Stores had been extending credit to customers through a variety of means, but the credit card was different. The invention of the credit card is credited to a Brooklyn bank manager John C Biggins, but his ‘Charg-It’ card was only available to local residents. Other banks followed

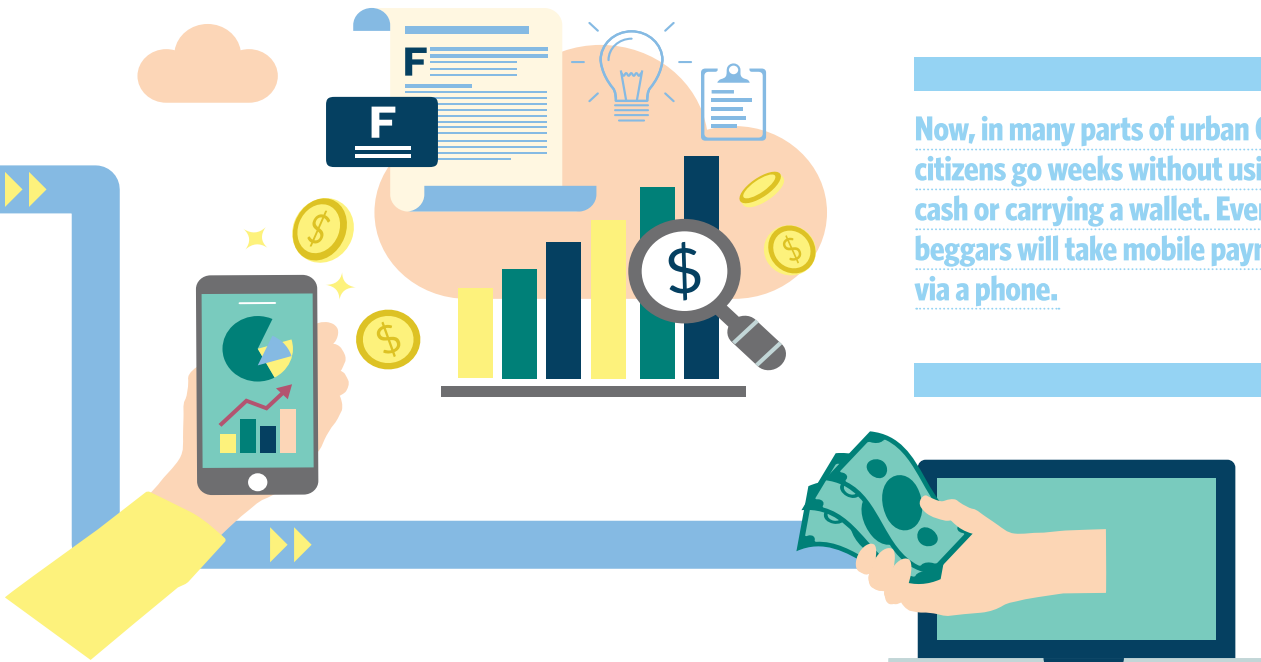
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and in 1950, the Diners Club card was born, starting with 27 restaurants and 200 members. American Express followed in 1958, and credit cards took off.

The 1960s saw another innovation now familiar to people worldwide. Those excited by the possibilities offered by today's ‘fintech’ (finance + technology) are reminded by old-timers that automated teller machines (known as ATMs in most places) were a big deal when they were introduced. They became widespread and saved consumers from the tyranny of banking hours.

THE FUTURE IS HERE

Recent years have seen another wave of technological innovation as the finance world catches up to the Internet revolution. Fintech, in the modern sense, is the brightest star in the financial world, with new business models changing people's access to money and credit, even enabling them to become small bankers themselves, all through a device in their pocket.



Now, in many parts of urban China, citizens go weeks without using cash or carrying a wallet. Even beggars will take mobile payment via a phone.

Peer-to-peer (P2P) models enable people to make money from money, like bankers. They allow people to borrow and lend to each other directly, but supported by technology that enables people to build credit records through reputation, like ratings on eBay. P2P equity crowdfunding turns people into miniature venture capitalists, allowing them to commit small amounts of equity to new projects.

Mobile technology has also eased the problems for societies where credit cards, for whatever reason, never caught on. Only a decade ago, luxury cars and houses in China were being paid for using duffel bags full of cash, as credit cards were not widely used and banking was cumbersome. Now, in many parts of urban China, citizens go weeks without using cash or carrying a wallet. Even beggars will take mobile payment via a phone.

In places like Kenya, mobile payments mean farmers who have never had bank accounts are researching distant market prices and cutting deals on their mobile phones. Globally, whole banks are opening that have no tellers and no physical locations.

Money itself is changing too. New electronic currencies are trying to do much more than just be a medium of exchange, a store of value or a unit of accounting. Token-based currencies incorporate 'smart contracts'. Not only can you 'spend' the tokens to gain access to a service, but the token itself is a piece of software, encoding

information and instructions critical to accessing the service. This is the first time since the Lydian Lion that the essential nature of money has changed to incorporate a new function.



MONEY: MORE THAN PAYMENT

The idea that money can be good for more than its main three benefits is also changing. When combined with a wide array of other services, a payment system can become the lynchpin of a whole 'super lifestyle mobile experience', delivered through an app (mobile phone application).

Nowhere is this more true than in China. While mobile payment apps in some places have been 'a credit card in a phone' - bringing a higher degree of convenience - in China, it is much more. Most Chinese cities seem to have gone cashless.

Major fintech companies like Ant Financial have incorporated technology into the financial sector, using their diverse expertise to transform relationships with money through their innovative fintech platform, Alipay. This has become a total lifestyle manager, encompassing almost

the entirety of life's commercial transactions from utilities to groceries to insurance and daily necessity purchases.

Now it has come to Hong Kong in partnership with CKHH in the form of AlipayHK (see next page). With over 1,000,000 people signed up in its first 10 months, it is quickly becoming as pervasive in Hong Kong as in urban China. The next phase in our relationship with money has arrived, with all our funds and the world of purchases at our fingertips.

From Lydian Lions to AlipayHK, money is the lynchpin of civilisation that has gone from a lump in our pocket to bits and bytes. While it has become less physically real and is hidden in our phones, it has become more accessible and usable in ways the stampers and shavers of coins could never have imagined. Innovators will continue to make money and credit more accessible, accelerating the pace of progress. The Notorious B.I.G. might have said "Mo[re] money mo[re] problems" but without it, we would be without the civilisation we take for granted every day. So bring on the "Money, Money, Money!" □

AlipayHK: The lifestyle game changer

China is a global leader in mobile payments and in China, Alipay is the leading e-wallet. It has now exploded in Hong Kong. Since May 2017, over 1,000,000 users have signed up to the Hong Kong version, AlipayHK, and can access 10,000 different merchant payment points. The numbers are rising quickly, and a closer look shows why.

Delving into the Alipay app, one finds a great deal more than just payment. A whole life could be lived using it – ordering food (including groceries), paying for public transit and utilities, and even gifting Chinese red packets (money gifts given at Chinese New Year). Loans, insurance, targeted coupons and government services are all available and payable through the app.

LOCAL EXPERTISE

Widespread adoption in one market doesn't mean that bringing it to a new market can be done without serious consideration. Every market has its own characteristics and Hong Kong and

of the differences between Alipay's home market and that of AlipayHK. "For example, the use of QR codes is ubiquitous in China. In Hong Kong, they haven't caught on in the same way. But as people realise their convenience and usefulness, they are using them more and more."

The Hong Kong version of the app will tie into CKHH companies – for example, providing an extra 20 per cent bonus on ASW's MoneyBack programme, discounts on electricity bills and extra data on phone plans paid through AlipayHK.

A SMART CHOICE

Since its introduction, AlipayHK has become a smash hit in Hong Kong. Ms Tan explains why the e-wallet service is a SMART choice for consumers, "SMART represents five major elements: Secure, Multiple Use Cases, Anywhere, Reward and Technology. We believe these five elements allow people to use their electronic wallet worry-free."

'Worry-free' is important as any new mobile technology raises concerns about security and privacy. Regarding data security, AlipayHK will maintain strict divisions between datasets and their analysis to ensure that merchant partners can feel secure that their data is kept private.

"We collect the absolute minimum amount of data required to complete the transaction. While the metadata provides insights, customer-specific spending information is held only by the merchant," says Ms Tan.

Ant Financial brings its technologies and other expertise to the new partnership, and CKHH brings management expertise, cultural knowledge and deep experience in the Hong Kong market. The joint venture is on track to make the Hong Kong version of Alipay more like the original – a lifestyle super app offering a wider and wider array of services – making it a perfect match for the Hong Kong consumer.



China are no different in this respect. Each has its own consumer behaviour patterns and CKHH's local expertise has been vital in helping create a local version of Alipay – AlipayHK.

Canning Fok, Group Co-Managing Director of CK Hutchison says, "Through our many years of business experience, we hope to work together and make AlipayHK more widely adopted, bringing benefits and cheer to consumers and creating value for shareholders."

CKHH's deep understanding of consumer behaviour, through A S Watson Group (ASW), 3 Hong Kong and HK Electric, gives them perspective and insight into how Hong Kong consumers think and behave.

Jennifer Tan, CEO of Alipay Payment Services (HK) Limited, explains some



Canning Fok, CKHH Group Co-Managing Director (left), Eric Jing, Ant Financial CEO (right), and Jennifer Tan, CEO of AlipayHK (middle), celebrate the 1,000,000th subscriber milestone at the kick-off ceremony.