ACMA CURRENCY NOTES

March 2018 Volume 1 | Issue 3

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GLOBAL RISKS IN 2017 AND THE ROLE OF THE CASH MANAGEMENT INDUSTRY

Óscar Esteban

Two months ago I was visiting London for our annual CIT policy review with Lloyds' underwriters, when at the premises of our broker I saw a document called The Global Risks Report (GRR). Working for an industry in which risk is an inherent part of the business, and more importantly, for which one of the critical factors for success is effective risk management, I thought it well deserved a read.

The World Economic Forum (WEF) is an acclaimed Swiss non-profit foundation established in 1971, whose mission is to improve the state of the world, and is best known for its annual meeting at the end of January in Davos (Davos meeting or Davos summit). The WEF is the entity that released the above-mentioned GRR, which is one of its flagships. In 2017 the GRR marked its 12th edition, and was debated at the Davos meeting, seeking global pragmatic solutions.

GRR-17 explores five gravity centres that according to WEF will shape global risks. First is financial crises and growing inequality, which are fed by continued slow growth combined with high debt and demographic change. Interestingly, the GRR-17 considers that capitalist economic models may not be delivering for humanity due to pervasive corruption, short-termism and unequal distribution of the benefits of growth increase. As a consequence, the world is transitioning towards a more multipolar order, which is putting global cooperation under strain. As a fourth pillar, it is stated that technology is not simply a game changer but that we are immersed in a highly disruptive phase of technological change; the Fourth Industrial Revolution is happening and is fundamentally transforming societies, economies, and ways of doing business. Last but not least, as people seek to reassert identities that have been blurred by globalization, decision-making is increasingly influenced by emotions, increasing polarization and intensifying national sentiments, which draws the importance of identity and community.

By global risk the GRR understands "an uncertain event or condition that, if it occurs, can cause significant negative impact for several countries or industries within the next 10 years." In the GRR-17 the current global risks are defined according to the following categories:

1. Economic risks:
   - Asset bubbles in a major economy or region,
   - Deflation in a major economy or region,

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- Failure of a major financial mechanism or institution,
- Failure/shortfall of critical infrastructure (e.g. energy, transportation and communications),
- Fiscal (sovereign debt or liquidity) crises in key economies,
- High structural unemployment or underemployment,
- Illicit trade (e.g. illicit financial flows, tax evasion, human trafficking, organized crime, etc.),
- Severe energy price shock (increase or decrease), placing further economic pressures,
- Unmanageable inflation.

2. Environmental risks:
   - Extreme weather events (e.g. floods, storms, etc.) or major natural disasters (e.g. earthquake, tsunami, volcanic eruption, geomagnetic storms), causing major property, infrastructure and/or environmental damage,
   - Man-made environmental damage and disasters (e.g. oil spills, radioactive contamination, etc.),
   - Failure of climate-change mitigation and adaptation of effective measures,
   - Major biodiversity loss and ecosystem collapse (terrestrial or marine), which may result in irreversible consequences for the environment, resulting in severely depleted resources for humankind as well as industries.
3. Geopolitical risks:
   - Failure of global, regional or national governance (e.g. failure of rule of law, corruption, political deadlock, etc.), resulting in inability to resolve issues of economic, geopolitical or environmental importance, or govern a nation of geopolitical importance,
   - Interstate conflict with regional consequences,
   - Large scale terrorist attacks,
   - State collapse or deep crisis affairs (e.g. civil conflict, military coup, failed states, etc.),
   - Weapons of mass destruction.
4. Societal risks:
   - Failure of urban planning, creating social, environmental and health challenges,
   - Food crises,
   - Large scale involuntary migration, induced by conflict, disasters, environmental or economic reasons,
   - Profound social instability, resulting in social movements or protests that disrupt social or political stability, with negative impact on populations and economic activity,
   - Rapid and massive spread of infectious diseases,
   - Water crises, because of the unavailability of fresh water in quality and quantity terms.
5. Technological risks:
   - Adverse consequences of technological advances, such as artificial intelligence, geo-engineering and synthetic biology causing human, environmental and economic damage,
   - Breakdown of critical information infrastructure and networks,
   - Large-scale cyberattacks or malware, causing large economic damages, geopolitical tensions or widespread loss of trust in the internet,
   - Massive incident of data fraud/theft, resulting in wrongful exploitation.

After reading the report, my next thought was about the direct effect of the above-mentioned global risks to our microcosmos, the cash management industry. Immediately, one reality came to my mind: the importance and impact of malware and cybercrime to ATMs, which are one of our cash service points. We are witnessing – and suffering – an increment on the number of attacks and an increase in their sophistication. This has resulted in severe issues to cash management companies as the attacks cause a cash loss, the blame for which banks address initially to us. Thus, consequences range from reputational and commercial impacts, with the need to demonstrate our innocence, to the extreme case of deduction of the concerned amounts by means of debit notes or directly from our billing. Although in most of the cases such losses are finally returned to us after an exhaustive and exhausting recon process, damage is caused and is challenging to repair.

The cash industry could address environmental risks through a strong commitment to cleaner fuels and more efficient engines.

Nevertheless, beyond the impact that global risks present to our industry, our final considerations should be addressed to what we may do to minimise such risks, as a respectful sector acting responsibly towards global sustainability and welfare. Regarding this point, actions may be suggested at least on two fronts.

Our industry can do much more on the environmental front, no doubt, and particularly in Asia and Africa where there is a backlog when compared to international benchmarks. We typically use large fleets moved by diesel engines, and though the change to electric or hybrid vehicles is difficult and economically unviable at present, the use of less contaminant and more efficient diesel engines meeting euro standards is feasible. Let us consider that whilst in Europe the current standards for trucks and light vehicles is euro 6, in many countries of Asia and Africa it is hard to find the adaptation and incorporation of even the euro 3 one. Euro 3 was compulsory in Europe as far back as 2000, seventeen years ago.

In addition to the emissions issue, our industry disposes tons of plastics and pa-

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per every week, which are the result of the use of packaging materials, one-use bags for cash operations, wrapping and banding materials, paper rolls for coins, etc. Engaging local authorised disposal companies for managing that waste and recycling it has two positive effects: firstly to the company and the community as a whole by reducing the footprint of our operations, and secondly in terms of risk management, as we would know by whom, when and where our waste is managed, so in case an internal unknown loss happens (not rare) we may increase our investigation scope and the likelihood of finding it.

For more than 15 years, in the USA and Europe our industry has helped and supported authorities with anti-money laundering activities. We have reported suspicious or abnormal cash movements involving irregular amounts that emerge from a combination of origins and destinations of cash deliveries and collections for particular individuals and organisations. We regrettably must recognise that, because of its anonymity, cash is used for illicit actions. However, the best way of defending cash is by fighting against its illicit use and the subsequent cash criminalisation, destroying arguments of those who attack the most universal means of payment.

Cash is adminttedly an attractive instrument for criminal activity, due to its anonymity.

Cash is the preferred worldwide way of payment, most notably in Asia and Africa. Cash has been growing year on year in absolute terms in every country in the world, but it cannot be ignored that cash has many enemies and detractors. Defending cash use does not mean supporting its dark side. Since anti-money laundering activities are addressed to fight some of the economic and societal risks mentioned earlier like tax evasion, inequality or illicit trade, committing our industry to the fight against the illicit use of cash means reaching greater levels of maturity and professionalism, and creating a fairer society for all stakeholders.

According to GRR-17, this year will present a pivotal moment for the global community. Threats of a less cooperative, more inward-looking world also create the opportunity to address global risks and the trends that drive them. This will require responsive and responsible leadership with a deeper commitment to inclusive development and equitable growth, both nationally and globally. It will also require collaboration across multiple interconnected systems, countries, areas of expertise and stakeholder groups with the aim of having a greater societal impact. The cash industry and its stakeholders cannot remain on the sidelines and ignore this call; world order is the result of everyone's contribution, and every contribution paves the way to improving the state of the world, which is not only the mission of WEF but the vision of all humankind.

Good management of paper waste improve the industry's sustainability and accountability.

CASH AND NEXT GENERATION PAYMENTS, CAN THEY WORK IN UNISON OR IS IT TOO LATE?

Huseyin Memis

This article picks up where it left off in the previous issue of ACMA Currency Notes.

Why We Need Cash

Liquidity

According to financial consultants, the Money Crashers, the key advantage of cash is its availability. While a stock can quadruple in value, it still cannot be used to pay the rent. A higher interest rate is yielded from a ten-year treasury bond than from a six-month maturity; however, the funds are tied up and unavailable for ten years. Cash deposits may also yield interest rates, but penalties accrue if the funds are withdrawn early. Cash can be spent however and whenever the consumer wants.

Deflationary Periods

In deflationary periods, the possibility of banks failing or stocks and bonds losing value is a very likely scenario. Cash does not carry this baggage, but rather increases in value during such periods. Cash on hand can ensure that citizens continue to enjoy financial stability should a deflationary period impact the economy.

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Cybercrime

Fraud, identity theft, and cybercrime pose a very significant threat to social and financial stability. Gemalto's 2017 Breach Level Index reported a 13% increase in data breaches from the last half of 2016 and a 164% increase in stolen, lost, or compromised records. Established financial institutions such as PayPal and Citibank have been notable targets and in the first half of 2017 more than 5 billion financial records were stolen. As security tightens on credit cards, alternative payment methods are becoming more appealing to fraudsters. In this context, cash represents a secure payment method that protects against the threat of cyber criminals and identity thieves.

Cash-Only Businesses

Many small businesses and enterprises, in an effort to avoid steep interchange fees levied by the major card schemes, encourage a cash-only environment and do not accept card payments. To even out the expense of interchange fees, some smaller retailers will impose a small surcharge on purchases under a set amount. Having cash on hand can simplify matters when visiting small businesses, markets, or restaurants that may or may not accept card payments.

Interest and Fees

Credit cards, mortgages, and loans frequently entail high interest rates and user fees. Cash allows consumers to stay on budget by avoiding such extra fees, and also allows users to avoid the stress of monthly payments and credit score monitoring.

The Future

So, is cash currently dying a slow death? Not by a long shot! Disruptive innovation has always been a core component of human progress; however, disruptive technologies typically do not overtake existing technologies, but rather both run in parallel for quite some time. For example, more than 74 trillion emails are sent globally per year but there is still a need for post offices and snail mail remains robust. PriceWaterhouseCoopers (PWC) estimates that by 2023 there will still be 8.3 billion letters delivered in the United Kingdom. While Netflix boasts more than 83 million subscribers worldwide, its anticipated impact on the cinema industry has not come to fruition.

Much of the conversation surrounding the "massive growth" in contactless payments tends to come from the industry stakeholders that profit from merchant fees, much as the most noise about the "death of cash" tends to come from the major card schemes.

Improving the overall rates of financial inclusion has become a central concern for the World Bank and many countries across the globe; the cash industry cannot allow this conversation to be fully usurped by the non-cash lobby. It is well known that unbanked and underbanked populations rely on cash transactions in their daily lives – for these people cash is trusted, known, reliable, efficient, and available. Attempts to force unbanked populations over to costly mobile devices, confusing payment schemes, or bank accounts that they ultimately cannot access does not serve to foster financial inclusion.

Another motivation in shifting society over to cashless is the drive to reduce the shadow economy and to hinder tax avoidance, as in the case of India's 2016 demonetization effort. While this rationale is laudable, little attention is paid to the impact of cashless economies on democracy, anonymity, and individual liberties. The dash to digitize payments exposes citizens to greater surveillance while cash ensures anonymity.

In relation to the shiny new alternative payment methods that seem to be rolled out on an almost daily basis, cash may not be the trendiest means of payment. With reports of central banks exploring blockchain and cryptocurrencies, cash may seem somewhat outdated to many authorities who set financial policy.

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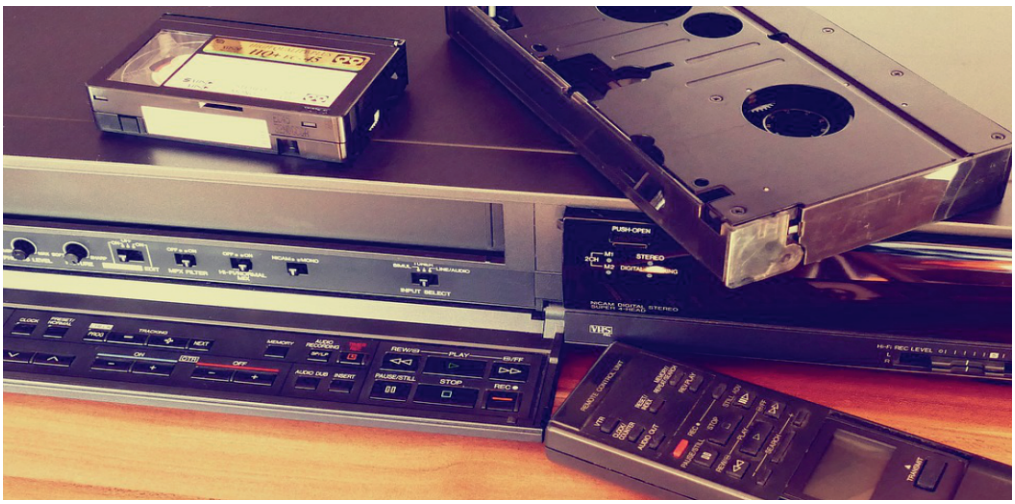
Alternative payment methods are becoming more and more appealing to fraudsters and cyber criminals.



Is cash set for the same fate that befell VHS, floppy disks, and rotary phones? So long as it still retains its major plus points, probably not.

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However, cash remains a proactive tool for central banks to use to counter commercial interests - it remains a viable, useful, efficient, and stable means of payment.

The availability of cash is a constant reminder to citizens of both the stability of the nation and confidence in the central bank and, by extension, the nation's government. It promotes financial stability and provides security in times of crisis

If the constant stream of articles trumpeting the death of cash are to be believed, the future of cash is in peril. However, cash remains the leading global form of payment, accounting for an estimated 80% of global consumer transactions.

*"...**unbanked** and underbanked populations **rely** on **cash** transactions in their daily lives – for these people cash is **trusted, known, reliable, efficient**, and **available**."*

CONSENSUS ON CRYPTOCURRENCY? VIEWS FROM AROUND THE WORLD

Tan Jit Kent

Some like it, some don't – but everybody who's anybody is talking about it: Bitcoin. Or rather, cryptocurrency in general. Advocates tout it as the way forward, with some central banks embracing the digital phenomenon by developing their own digital currencies. Meanwhile detractors have highlighted concerns such as security, volatile prices, and links to criminal activity. As debates rage on, authorities around the world have offered differing takes on the burning question of cryptocurrency.

In the Euro zone, sentiment surrounding cryptocurrency is largely negative, with the European Central Bank (ECB) issuing warnings against investment in digital currencies. These warnings centre on the fluctuating value of Bitcoin, and its links with money laundering and crime. The ECB is dismissive of the economic impact of digital currencies – a view shared on the other side of the Atlantic.

The United States Federal Reserve concedes that the impact of digital currencies may become significant at some point in the future. However, at the moment "they're just not big enough" according to the Fed's Vice Chair for Supervision, Randal Quarles. Both ECB and the Fed remain relatively unenthused, with no immediate plans to initiate a central bank digital currency. The Fed cites

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The development of digital currencies will be watched with great interest in the coming years as the phenomenon continues to divide opinion globally.

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technical issues, lack of a regulatory framework and oversight, and privacy concerns as major obstacles to widespread uptake of digital currencies.

It is a similar story in Japan, where cash is still king and cashless transactions remain at a stage of relative infancy. The Bank of Japan (BOJ) perceives no significant demand for a centralized digital currency and casts doubt on its widespread utility. Bitcoin, for instance, is traded for speculative or investment purposes, rather than properly functioning as currency, i.e. as a medium of exchange and store of value. "If it's a question of whether [Bitcoin] is functioning like currencies as a form of payment or means of settlement," remarked BOJ Chief Haruhiko Kuroda, "I don't think it is."

At the opposite end of the spectrum is the Netherlands, whose central bank has created its own cryptocurrency called DNBcoin. This cryptocurrency is currently for internal circulation only, but its blockchain network is seen to have value in the settlement of complex financial transactions. Likewise, in Turkey, cryptocurrency is seen as a potentially important element in a cashless economy – and its underlying technology a useful tool for faster, more efficient payment systems.

In the same vein as the Dutch, China has been working to develop its own central bank digital currency since 2014. This digital currency has yet to be introduced. The People's Bank of China has full control over cryptocurrencies and, through this initiative, is fully embracing the technology – though it is cracking down on the issue and trade of private digital currencies.

China's recent crackdowns are perhaps understandable considering that cryptocurrencies are disallowed in some jurisdictions. India's concerns over cryptocurrency as a tool for money laundering and terrorist financing, for instance, have led to its usage becoming a violation of foreign-exchange rules. Likewise, in Morocco, all transactions involving digital currencies are deemed punishable by law.

South Korea's government appears to be of similar mind as it contemplates legislation to shut down cryptocurrency exchanges. This sentiment is echoed in Singapore, albeit to a lesser degree. Although cryptocurrencies are not illegal, the Monetary Authority of Singapore has issued formal warnings to potential investors that they "run the risk of losing all

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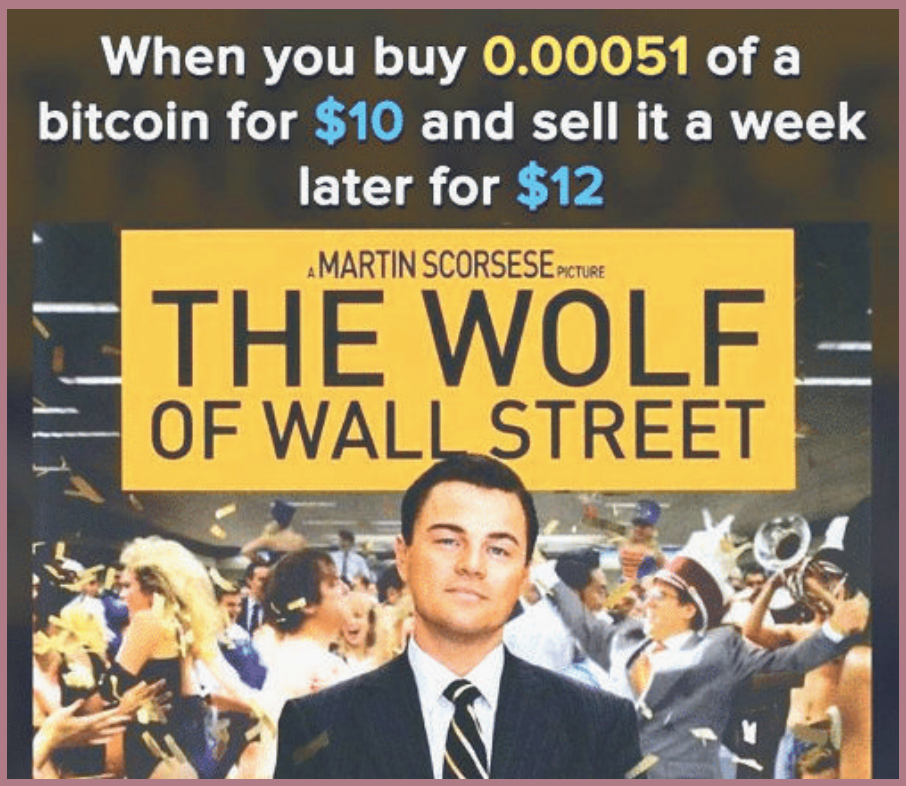
*"If it's a question of whether **[Bitcoin]** is functioning like currencies as a form of **payment** or means of **settlement**,"*

...

"I don't think it is"

Haruhiko Koruda
Bank of Japan



Humour aside, internet memes like this one highlight how Bitcoin's fluctuating value and speculation-fueled demand can encourage reckless behaviour among investors.

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their capital." A lack of regulatory framework to protect investors and hence increased risk of fraud are major concerns in the city-state.

Around the world, the cryptocurrency outlook is generally split into three schools of thought: that of countries like Japan, who doubt its demand and utility; that of the United States, who identify potential for the future; and that of China and the Netherlands, who have already moved to embrace this phenomenon. At the same time, concerns of privacy, fraud, and criminal activity are universally shared by authorities.

For the moment, in the absence of the widespread issue and adoption of central bank digital currency, the jury is still out what the rise of Bitcoin (and others of its ilk) spells for the future of cash.

Further reading:

1. Eric Lam, "What the World's Central Banks Are Saying About Bitcoin," Bloomberg, January 28, 2018.
https://www.bloomberg.com/news/articles/2017-12-15/what-the-world-s-central-banks-are-saying-about-cryptocurrencies

MEMBERS' NEWSBOARD - LATEST STORIES FROM ACMA MEMBERS

CPS signs three year contract with US Federal Reserve

Cash Processing Solutions

Cash Processing Solutions Ltd (CPS) the cash processing technology and solutions group, today announced that, as a result of a two-year tender process, it has secured a significant contract with the US Federal Reserve Bank (FRB).

The contract is to participate in a competitive development for the FRB's next generation of high speed currency processing equipment (NextGen). Under the contract, CPS will design, develop and manufacture a high-speed currency processing system with the associated software solutions to meet the Federal Reserve's note processing requirements. The contract has now commenced and will run through to the end of 2020.

This competitive process is expected to lead to the provision of the FRB's NextGen requirement which will replace the current fleet of high speed cash processing machines with state of the art next generation systems.

Mark Gould, Product Director - Cash Product Office (CPO) at the FRB, noted that, "Effective cash processing equipment is critical to the mission of the Federal Reserve's cash function, enabling us to meet demand for U.S. currency, ensure the quality and integrity of currency in circulation, and maintain cost-effective operations."

*Get the full story from ACMA's archives **here**.*

Making the cash cycle more secure and more efficient through automated processing

G+D Currency Technology

Central and commercial banks alike are striving to achieve a secure, economically efficient cash cycle. This is only possible with a high degree of automation. The NotaTracc tray standardized transport container is at the center of the evolution. In the NotaTracc system, G+D Currency Technology has transferred the basic principles behind the freight container to the banknote cycle, achieving increased automation through standardization. The system is based on a container and a loading module. Together, these make banknote processing more efficient and more secure. The innovative system will benefit cash centers in central and commercial banks, and cash-in-transit companies equally, whilst also paving the way for completely new models for collaboration in the cash cycle.

Benefits of the automated cash cycle:

- New collaboration models can form, both within and between companies.
- Collaboration becomes more secure, since fewer people handle the cash.
- Packaging and unpackaging banknotes is no longer necessary.
- Multiple sorting is no longer required. For example, a central bank can accept more efficient, larger deposits in mixed denominations.
- Specialization becomes possible; not all tasks need to be completed at all locations, which creates potential for efficiency.

*Get the full story from ACMA's archives **here**.*

A step forward in Security, Big Data Collection and Network Connectivity in South East Asia

Spinnaker

In January Spinnaker International Ltd launched SafeTrack™, a connectivity solution which delivers equally on ATM/SST security and data gathering; providing detailed information for management decision making based on the customer's specific requirements.

SafeTrack provides Financial Institutions and police with a reliable, robust and flexible system for location confirmation, asset status monitoring and general machine condition. This is achieved by building onto GPS, adding an open channel for sensor inputs/outputs and creating a monitoring platform to provide 24/7 visibility.

Assets are protected by –

- Continuous location monitoring. Mobile assets have their movement history on record for review at any time.
- The maintenance requirements of the asset are being met to the manufacturer requirements.
- The asset is being correctly used and not subject to criminal abuse or negligence.

Once SafeTrack™ is activated, it provides tailor-made responses to suit the client's needs.

Options include:

- Rapid GPS location signalling
- Bespoke alert messaging to designated numbers
- Information on speed and direction of travel
- Key environmental details- eg noise, temperature
- Remote access to the asset providing capabilities to foil the attack; eg. audible alarms, IBNS activation.

SafeTrack™ is supported by a GUI web-portal for the customer, managed through Spinnaker's secure server.

For more on SafeTrack™ contact Anthony McAndrew (+60173282505).

*Get the full story from ACMA's archives **here**.*

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To provide a platform for Cash Management Companies (CMCs) in Asia, Africa and Australia & Oceania to raise their professional reputation and standing in the Cash Handling and Cash Management Industry, and to act as a representative with the appropriate authorities on issues of common interest.

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