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EMBRACE CHANGE

Ted Devereux | ACMA

It is very clear that cash remains the primary payment method around the world. Globally, cash in circulation is still growing at 5% year on year and well in excess of 10% in developing countries. It should be noted that two billion of the global adult population are unbanked, meaning cash is the only form of payment other than bartering. The only country where cash is shrinking is Sweden. But not without concern from the populace, that once only digital currencies are available without any competition, transactional costs will escalate out of control. This has resulted in public push back supporting cash. There is another concern in the “cashless society” which is the security of digital cash and the ease with which it can be compromised.

Whilst cash is still “King”, the Cash Management Industry cannot afford to be complacent and must embrace the inevitable change that the younger generations will expect, especially as they enter the workforce. What does this mean for the cash cycle? In my view, all



Cash remains the primary payment method around the world.

stakeholders need to take steps to make the issue, receipt and processing of cash much more efficient, and thus further reduce the cost of cash. Which is still, by far, the least expensive form of payment.

How will this be achieved? It starts with the Central Banks adopting policies which will enforce the efficient circulation of cash by the Commercial Banks. In my opinion, Central Banks should be the

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regulator, ensure the integrity of the currency, hold the un-issued reserve, issue fit notes, and destroy un-fit notes. This leaves the Commercial Banks with the task of processing and re-circulating cash and where possible, trading excess and deficit cash between themselves. Commercial Banks generally do not have the branch or SST (Self Service Terminal) density to operate efficiently, and in many cases, restrict operating windows to branch opening hours. This results in a high cost of operation through inefficiency, a high level of investment to meet Central Bank standards, and lower levels of service outside banking hours and during peak periods, as it is costly for them to increase resources to meet the demand.

This has led to Commercial Banks outsourcing cash movements, cash processing and SST replenishments and reconciliation to the Cash Management Industry. In some countries where the Commercial Banks still collect retail cash, it has allowed them to outsource the collection, processing and recycling, as well. As a result, they have been able to close treasury and sub-

treasury branches, removing investment in staff, branches, security and processing equipment. In one country where this happened, a large bank was able to reduce ten treasury and sub-treasury branches in the capital city to none!

In some countries, following a change in policy by the Central Bank, the Commercial Bank's have insourced rather than outsource to the Cash Management Industry. Why is this? Is this a reflection on how we as an industry are viewed? Is it because we have not made the investment necessary in our own facilities, personnel, processes, training and vehicles? Have we not done enough promoting of ourselves as a professional industry with the Central Bank and Commercial Bank Associations?

It is clear that we as an industry need to invest and do more to promote ourselves as professionals if we are to get the trust of the Central Banks and the Commercial Banks, and as a result take advantage of the outsourcing opportunities and the change that is inevitable.

But it goes well beyond the movement and processing of cash.

Small to mid-sized Commercial Banks have a major challenge with market penetration, especially through their SST network. I am sure we have all seen the queues at the large, dominant Bank SST's and no queues in front of a small to mid-sized Bank SST's. Why not consolidate their SST's and extend the number of touch points available to their customers? In many Asian countries, a key mantra by Central Banks is financial inclusion. Most Bank's, even with rather small SST estates, operate their own monitoring facility. Why not outsource? Why are we as an Industry reluctant to invest in this area and provide end-to-end services? We need to invest and show our Bank clients that we are capable and have the skill sets and resources required.

A primary problem in Asia with the management of the SST's is the number of FLM (First Line Maintenance) and SLM (Second Line Maintenance) callouts per SST per month. In many Asian countries this is well in excess of six per machine per month when compared to Australia or the UK where it is below one. Why is this the case? In my view, it is a lack of regular preventive maintenance being carried out, the dumping down of the information received at the SST monitoring station, and the reluctance in Asia to provide Single Line Maintenance. What is Single Line Maintenance? It is where the response team is trained to carry out preventive maintenance and to respond to both FLM and SLM callouts with the appropriate tools and spare parts to repair the SST. The machine has many more pieces of information than is sent to the monitoring station and gives the responding technician the information he or she needs to bring the SST back on line.



The cash management industry must present itself as a reliable professional partner for both Central and Commercial Banks.

The big benefit is the improvement in uptime and security as the machine is open fewer times! Once again, why are we, as an Asian Industry, reluctant to invest and provide better services to our Bank clients?

Another area that is gaining traction is Smart Safes. These safes sit at the retailer's location and are linked to their Commercial Bank who provides end of day credit to their retail clients. This allows the retailer to reduce potential till shrinkage, remove high value notes from the till, secure them from attack, reduces the number of times notes are touched and processed, and allows the retailer to check, at any time, how much cash is being held. Not all retailers need or want

a cash collection and still take the cash to the bank themselves once or twice a day. In this scenario, they still get the benefit of fewer touch points (less potential for shrinkage), reduced management / supervisory time, a much better overview of how much cash they are holding securely against shrinkage or attack and if they use cassettes instead of bags, the money is better prepared for deposit at the bank.

Digital cash will not go away, and we as an Industry must track the changes and look at ways of embracing them and benefiting through being professional in all respects. We are no different from any other industry, change or become irrelevant!

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IS LOWER BETTER? A LOOK AT THE RATIO OF CURRENCY-IN CIRCULATION TO GDP AND THE EFFECTS ON A COUNTRY

Sriprakash Mishra

Despite the increase in electronic payments and transactions, cash still remains the most widely used method of payment in many countries, especially for retail and small ticket transactions. In India for example, currency-in-circulation (CIC) saw an annual growth of 15% from 2015 to 2016. In addition, CIC rose by 10% over the course of 2 years, from INR 16.4 trillion (March 2016) to INR 18.05 trillion (March 2018), even though there were 899 million Cards and 294 million Prepaid Payment Instruments recorded as of March 2018. (Source: RBI Bulletin, May 10, 2018)

One of the main functions of a central bank/monetary authority is to ensure adequate supply of currency to the public. When there is a scarcity of

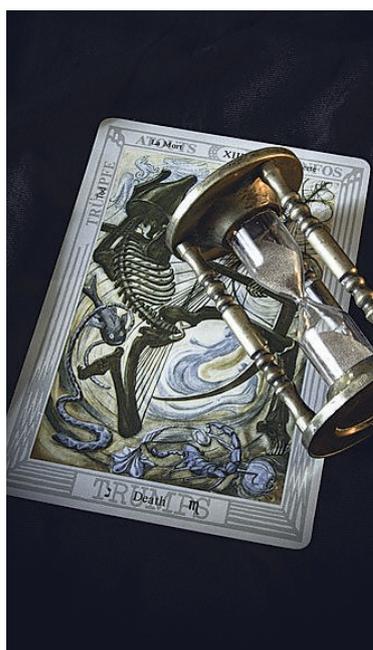
currency, it adversely affects the livelihood of low income groups and leads to their financial exclusion, among other things. However, of late there is a trend in some countries to deliberately reduce the ratio of CIC to GDP to “promote” efficiency of cost and compliance. Instances of artificially creating a “cash crunch” are not uncommon; two instances of acute cash scarcity took place in India recently. The first one happened in early 2017 following the demonetisation of the INR 500 and 1000 banknotes. The second was in April 2018 following a deliberate compression in the currency supplied by the Monetary Authority.

A real currency shortage in the economy, as opposed to the induced

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There have been two recent instances of cash shortage in India. Incidents like these adversely impact low income groups in the country.



Short of invoking supernatural forces, there still remains no reliable method of accurately predicting the demand for cash at a given place and time.

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one, may sometimes arise because of one or a mix of factors. One factor is the lack of scientific methods for demand assessment. Here, the challenge for the stakeholders is to formulate models for demand forecasting (how much currency is needed where at what time) with tolerable margins of error. Without scientific models, the demand forecasting for the cash cycle is reduced to an intuitive assessment of how much currency is needed based upon previous years' supply. Another factor is the mismatch between demand and supply of currency on a printing level. The Monetary Authority says how many new banknotes and coins are needed to the Printworks and Mints, which sometimes have a limited production capacity. This can lead to an inadequate supply or supply in lumps (only sending in half the order at a time rather than fulfilling the order in its entirety). A good example of this in India was in 2016. There was a requirement of 24 billion pieces but the amount supplied by the Printworks was only of 21 billion pieces. (Source: RBI Annual Report, 2016-17)

A third factor could be the inadequate understanding of public behaviour as far as their use and handling of currency. The April 2018 cash crunch in India took place partly because the public preferred to keep the INR 2000 banknotes to themselves once they realized there were not enough in circulation. This led to a very limited reverse flow of these banknotes from the public to the banks.

A factor that shouldn't be overlooked is the lack of technological integration between the Printworks and Mints, the Monetary Authority, the currency repositories and the commercial banks. Even now, in many countries, there is no real-time information flow between commercial banks and currency

repositories, between currency repositories and the Monetary Authority, and between the Monetary Authority and the Printworks/Mints. This can lead to bottlenecks in the supply chain. In this instance, there is an opportunity for the stakeholders to develop products that can make supply chain system much more efficient.

It is necessary to remove the misconception that a low ratio of CIC to GDP is desirable as this can lead to disastrous results. In many countries, such as India, there is an effort to forcibly reduce the usage of cash by reducing the level of currency in circulation. The impact of this phenomenon on the growth rate of GDP needs to be studied in depth. As a start, I have included a brief primary analysis of this phenomenon in India below.

Prior to the demonetisation, consumer spending in India rose by 3.6% in the first quarter of 2016, but this growth rate slumped to 1.7% in the first quarter of 2017; that is, immediately after demonetisation. To further the hypothesis, consumer spending decreased by 1% in the first quarter of 2018, which was the period of severe cash shortage (Source: Trading Economics.com/MOSPI). A decrease in consumer spending has a detrimental impact on many things, including industrial output and employment generation.

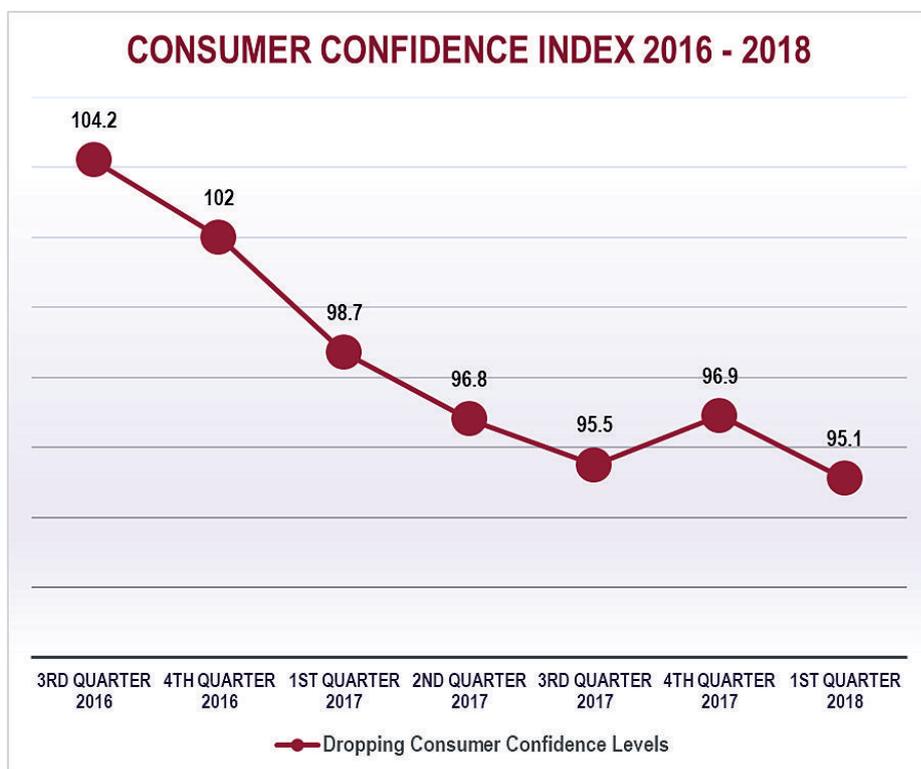
Low CIC to GDP ratio has an interesting correlation with the Consumer Confidence Index as well. In India, consumer confidence stood at 104.2 index points in the third quarter of 2016, prior to demonetisation. It is important to note that the demonetisation led to a drastic reduction in CIC from 12.2% of GDP in November 2016 to 8.8% in March 2017. Thereafter, consumer confidence has been declining steadily (see chart on

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the right). It is worth noting that even now the CIC to GDP ratio has not been restored to pre-demonetisation levels.

Further, in order to avoid ill-conceived moves to reduce the ratio of CIC to GDP, it is necessary to ensure that there are well established industry-wide guidelines for the right denominational mix of currency. To take the Indian example, there are the large denomination INR 2000 banknotes and then nothing else between them and the 500 denomination banknotes. When there was a restriction in the supply of INCR 2000 banknotes in April 2018, people began to hoard them as there was no alternative (the INR 1000 banknotes had been demonetised). This led to a severe cash shortage in the country for a month.

In summary, in any economy, the desirable level of CIC is a product of an interplay of factors like growth and



India's Consumer Confidence Index has been declining - possibly in correlation with its CIC to GDP ratio. (Source: Consumer Confidence Survey, RBI, May 2018).

inflation, tax structure, share of informal and retail economy, prevalence of other modes of payments, demographic structure, migration, and so on. Any attempt to artificially reduce the ratio of CIC to

GDP is fraught with adverse consequences for the economy as well as causing hardship and economic exclusion of vulnerable sections of the population.

EVOLUTION OF THE CASH CYCLE FROM VERSION 0.0 TO 4.0

Mike Bielamowicz | Glory

GLORY has been involved in the cash cycle for over 100 years. During this time we have witnessed much change, and the pace of this change has accelerated significantly in the past twenty years. That said, what we have seen so far is nothing compared to the game changing disruption that is to come.

So where are we now, and how is the situation likely to change? Carl Sagan wrote 'You have to know the past to understand the present'. In

the same way, an understanding of how we have reached the current position and a knowledge of the pressures for change will inform our discussion of how the cash cycle is likely to evolve going forward.

What is the cash cycle and what does it do?

Although cash as a medium of exchange has been around for over a thousand years, the cash cycle, whereby cash is distributed and managed in a well-structured marketplace, is a more recent

innovation. It involves five key players: the central bank as the government issuer of cash, consumers and retailers as the primary users of currency, commercial banks as key distribution points, and secure transportation companies to move cash from place to place. The key players have remained the same and the cash cycle has remained an enabler of commerce in the modern world. So what has changed and how can we classify the most significant changes?

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The cash cycle, in its earliest iterations, was characterised by inefficient manual processes at cash exchange points.

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**THE MOVE TO
WHAT WE WILL CALL
CASH CYCLE
VERSION 2.0
WAS DRIVEN BY
THE CIT
COMPANIES.**
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The first innovations in the cash cycle were mainly to reduce the manual tasks involved in handling cash.

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A manual approach - Cash Cycle Version 0.0

The cash cycle involves the flow of physical currency from the central bank through commercial banks to buyers and sellers and back to the central bank for replacement. Let's consider how this has evolved. Up until just over fifty years ago, cash was primarily handled manually and automation was limited. For larger retailers, surplus cash was picked up by a CIT company. For smaller companies it was typical for staff to pay cash into a bank branch. In many countries cash had to be returned to the central bank for verification before it could be redistributed. At every cash exchange point all cash was counted manually, often by more than one party. We can categorise this highly manual, inefficient mode of operation as Cash Cycle Version 0.0.

Increased bank automation - Cash Cycle Version 1.0

A number of innovations between 50 and 20 years ago reduced and replaced many manual cash handling tasks in the banking industry. These included the introduction of ATMs, cash sorters at the banks' cash centres and Teller Cash Dispensers at bank branches. The result was a radically reduced burden for bank staff who were handling cash. Though there was change in this area, interaction between retailers, CITs and banks remained largely unchanged. This period of rapid improvement in bank cash handling efficiency and security created the basis for fundamental changes in bank branch design and consumer-to-bank interactions that persist until today. The back-end technologies created the impetus for faster deposit recognition and acceleration of business banking services. This period can be referred to as Cash Cycle Version 1.0, and it lasted until around 20 years ago.

A change in focus by CITs - Cash Cycle Version 2.0

The move to what we will call Cash Cycle Version 2.0 was driven by the CIT companies. The new CIT business model was focused on growth, which required gaining cooperation of new services where previously retail staff would self-deliver deposits to their local bank branch. CIT's introduced a concept whereby the retailer could keep cash on-site securely for longer periods of time. The new concept reduced need for frequent armoured car pick-ups and lowered the cost to the retailer. This new affordability expanded the market for CIT's as intended.

Once again cash handling technology enabled the change, centred around a rather simple application called the "smart safe". CITs guaranteed that the contents of an on-site, secure cash counting safe would be deposited at the bank. And the result? Increased safety and deposit accuracy combined with reduced labour costs involved with trips to the bank.

Cash Cycle Version 2.5 and the concept of provisional credit

The benefits of Cash Cycle 2.0 were limited by the fact most retailers wanted cash in their bank accounts quickly in order to pay suppliers.

The smart safe idea was significantly enhanced by improved communication technology through cooperation between CITs and key commercial banks. Deposit data could now be extracted remotely from 'smart' safes and the resulting deposit data transferred to the bank. As CITs already guaranteed the physical delivery of cash deposits, the cash could be credited to retailer accounts prior to actual physical deposit at the bank. This effort was called provisional or same-day credit, and aligned well with other rapidly rising technologies for remote deposit check processing and verified credit

payment terminals. Commercial deposit automation had fully arrived by the mid 00's.

There was a curious downside to this change in process. Less urgency to deliver physical cash to the bank resulted in an increase in the amount of cash in circulation. Operational efficiency between banks and retailers had improved, and new revenue opportunities had been created for CITs, but the system overall was now becoming less 'cash efficient'.

A more efficient use of cash - Cash Cycle Version 3.0 - a work in progress

A more significant change occurred around ten years ago when hardware suppliers that had previously focused on financial services recognised the need for improvement in on-site systems in the retail sector. More recently they have added recycling capability at retail outlets and have automated tasks such as preparing tills and reconciling bank deposits. The most important change has been the potential to re-use cash that was previously idle in safes. This includes the provision of cashback at the point of sale.

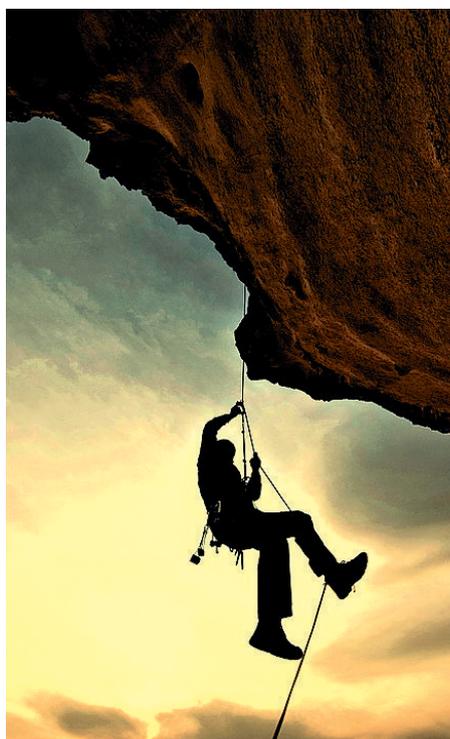
At the same time, banks and CITs have worked together to optimize the back-end processing of cash. Together they have stitched together a very efficient network of cash centres, largely operated by the CITs, with higher levels of productivity than the highly fragmented network of the past, reducing transportation and re-handling requirements and hence reducing the amount of idle cash in the overall cash cycle. This change was possible due to improvements in data sharing and improvements in processing. This last impact is largely due to smarter "one touch" deposit processing systems that allow a



Improvements in data sharing and processing created a more efficient cash cycle with less idle cash than before.

single vault teller to completely manage, count, document and sort processes that previously required multiple staff members and very expensive sorting systems.

The result of this innovation is a significantly more cash-efficient infrastructure where these solutions are employed. We note, however, that Cash Cycle Version 3.0 is still a work in progress, with such solutions in place for less than 10 percent of the



Though the cash cycle has evolved more and more rapidly with each iteration, we still face an uphill journey towards cash efficiency, with more improvements yet to be made.

total cash cycle around the world. Like most new technology it is spreading rapidly and at a faster pace relative to any previous evolution in the cash cycle.

So, what comes next? We have achieved significant and lasting improvements to the security and efficiency of the cash cycle and a redistribution of work between the same participants. With the adoption of Cash Cycle Version 3.0, cash efficiency is improving through the local redistribution of cash at retailers but the cash cycle remains, at its core, radically inefficient and ripe for disruption.

Drivers for change - Cash Cycle Version 4.0

There are still two basic issues to manage to fully optimize the cash cycle. Both occur in the interchange of value between sellers and buyers.

Issue 1: Revenue is generated in exchange for goods, so there is a constant influx of cash. This must be reused to purchase more goods, so it naturally flows to banks and in to merchant accounts. The banks, in turn, reissue the cash to consumers through their accounts via ATMs and bank branches.

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Issue 2: Cash is exchanged inefficiently. There is a mismatch between the cash received and the cash needed for change, which requires replenishment of “change” for the retailer. Put simply, people find it easier to pay with large denominations and will normally require small denomination change as a result. Therefore, retailers will need to have change from banks and CITs.

These issues result in inefficiency of two types: cost and convenience. The existence of these inefficiencies in what is effectively a universal monopoly system – only a central bank can issue cash - means it is a system overdue for disruption.

If we can in some way address these mismatches (reducing demand for change, increasing cash distribution to consumers by retailers) then we could directly reduce the requirement for CITs and the involvement of commercial banks. This would also further reduce the amount of idle cash in the system and lessen the pressure on central banks to provide more cash in the economy overall.

Can we learn from the experience of other markets?

Is there an equivalent of Air BNB (matching supply and demand in the short-term housing market) for cash?

The first “common sense” idea is “electronic payments”. Unfortunately, electronic payments in themselves do not provide a solution, because they do not have the immediacy and ubiquity of cash. They are also, at least today, less efficient than cash for the majority of retail transactions when you consider the systemic



The need for constant replenishment of smaller denominations as change is one of the issues that should be addressed to optimize the cash cycle.

transactional costs. Addressing issue 1, and encouraging “cash-back” to consumers at retail locations, is relatively simple, and will likely be directly driven by the economics of maintaining large networks for cash disbursement. ATM and branch networks are expensive and inefficient. Bank investment in marketing cash-back alliances with key cash sources (retailers) will be much more efficient than maintaining these networks. For the retailer, the direct benefit is lower transactional banking costs. For both parties, the additional infrastructure investment is almost “nil”, particularly for those cases where the parties are already participating in Cash Cycle 3.0.

Solving for issue 2 is a bit more difficult. Can consumers be encouraged to use their lower-denomination change? Encouraging optimal consumer behaviour will undoubtedly be a challenge.



E-payments appear to offer an avenue towards improving the cash cycle, but may not be an actual solution due to inherent limitations.

Measures suggested have included consumer initiatives to return change to retailers:

- Pricing adjustments to lessen the likelihood of change
- Encouraging social responsibility - for example doubling the change given to charity
- Creating incentives for consumers when they participate in a sharing approach to “change”

We should also consider the involvement of technologies like data mining, deep learning, blockchain and the Internet of Things to optimize supply and demand in the right place at the right time.

What would greater 'matching' achieve?

For retailers there would be lower CIT and bank charges. Meanwhile, CITs would play an increasing role in balancing cash between retailers, meaning banks would not need such a large unprofitable cash handling infrastructure. This would lead to banks having lower infrastructure costs. And, as has already been mentioned, there would be less pressure on the central bank regarding the cash supply.

Disruption is inevitable in a vibrant market. The core challenge of cash and an efficient cash cycle is the matching of supply and demand as close as possible to endpoint users and endpoint receivers.

What does Version 4.0 mean for us?

The challenge for Glory and our partners is to drive the evolution of the cash cycle to ensure the stability of the cycle while at the same time radically reshaping it to improve cost and experience.

RESILIENCE AND CONTINGENCY PLANNING - HOW WELL-PREPARED ARE YOU?

Jens Seidl | Currency Research

A number of events in this still young century have highlighted the importance of solid disaster recovery plans for a multitude of services. Hurricanes such as Katrina (2005), Sandy (2012), and Harvey and Maria (both 2017) destroyed critical infrastructure in the US and the Caribbean; the Tōhoku earthquake and tsunami in 2011 not only resulted in several meltdowns in the Fukushima Daiichi Nuclear Power Plant, but also millions of Japanese households were left without electricity and water; and, more annoying than tragic, an isolated failure of the Visa payment network in Europe on 1st June 2018 provided a small scale insight into the resilience (or lack thereof) of payment systems in this day and age.

But what does resilience actually mean? The United Nations Office for Disaster Reduction (UNISDR) defines resilience as “the ability of a system, community or society exposed to

hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions”. The UK Cabinet Office introduced the concept of ‘organisational resilience’ in a report in 2011, describing it as “the ability of an organisation to anticipate, plan and respond to uncertainties and disruptions to business operations”. I prefer that second definition as it specifically addresses the need to anticipate and plan.

In a live poll at the Europe Cash Cycle Seminar in Dublin in April 2018, 82% of the respondents (all experts from the cash and financial industry) felt it likely or very likely that retail ePayment systems will be rendered inoperable for more than 2 days through a Cyber Attack in the next 10 years. Yet only 12% of respondents felt that their country was “very well”

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Our experiences with large scale disasters have highlighted the importance of having recovery plans for a number of services, including payment systems.



It isn't just massive disasters that have the potential to cripple payment systems - network failures can have the same effect too.

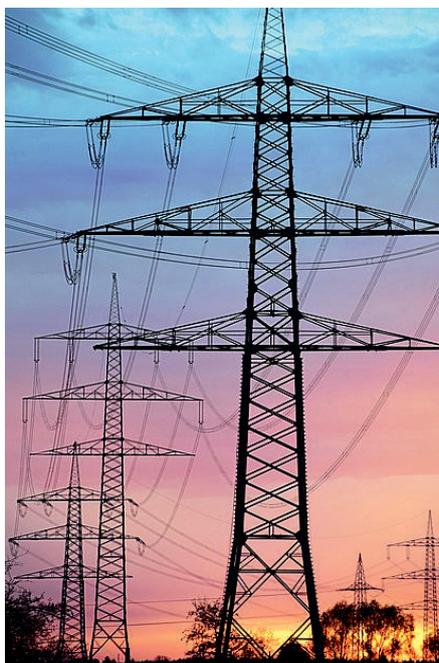
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82% OF RESPONDENTS FELT IT LIKELY OR VERY LIKELY THAT RETAIL EPAYMENT SYSTEMS WILL BE RENDERED INOPERABLE FOR MORE THAN 2 DAYS THROUGH A CYBER ATTACK IN THE NEXT 10 YEARS.
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prepared for such an event with regards to capacity and contingency plans in the cash cycle; 14% replied that their country was prepared “very poorly”, and 39% answered “poorly”. What would your answer be, both for your country in general and for your organisation specifically?

In case of a major disruption, the key to a resilient cash cycle is that all critical players have realistic and tested contingency plans in place and that those plans are in sync with each other. If the central bank, commercial banks and cash management companies develop and test their own contingency plans separately from each other, the risk of wrong assumptions, missed interfaces, mismatched capacity and communication breakdown in case of a disaster rises significantly.

When hurricane Maria brought destruction and devastation to large parts of the Caribbean in September 2017, including the US territory Puerto Rico, the country’s infrastructure was literally ripped to pieces overnight. Roads were blocked, bridges destroyed, and water supplies and electricity interrupted so severely that only 5% of the island had access to electricity. As electronic payments, such as credit and debit cards, were rendered useless due to the lack of power, demand for cash soared to up to 700% of the daily norm. Businesses started paying their employees in cash, and payment for goods and services would almost exclusively be made with banknotes and coins.

The Federal Reserve Bank (Fed) implemented their contingency plan, flying in currency deliveries on a daily basis, sometimes even more than



Electronic payments are totally dependent on a steady power supply, making them unusable in times of major disaster. This only highlights the importance of a resilient cash cycle.

once per day, to meet demand. The US Dollar cash was distributed to two vaults from which commercial banks would be able to pick up their respective allotments. In anticipation of the destruction that the hurricane would bring, the Fed had already begun to deliver cash to Puerto Rico



Despite receiving strong support from the US Federal Reserve, Puerto Rico struggled to maintain a functional cash cycle in the aftermath of Hurricane Maria. How would other places fare?

before Maria made landfall.

While the Fed was in a position to bring sufficient cash onto the island, the banks were struggling to get their branches and ATMs operational due to the continued power shortages. Making cash deliveries to branches was also a challenge, partly because of the badly damaged road infrastructure, but also due to fuel shortages. Banks were able – at best – to operate less than 50% of their branch network, with most cash payments made over the counter rather than from ATMs, resulting in much-delayed service, long queues and additional hardship for the population.

One must also consider that Puerto Rico enjoyed the full support of the Federal Reserve System to recover its financial infrastructure. But what about those smaller nations that cannot rely on others to provide emergency support to maintain or restore a functional cash cycle? Is there a safe yet easily accessible emergency stock of cash available at the Central Bank? Are there logistical contingency plans to deal with fuel shortages and damaged road networks? How will communication be managed if the telecoms infrastructure, including mobile networks, is impacted? What are the contingencies if computer networks are unavailable for an extended period – are there plans in place to support a nationwide offline scenario? And how often are these plans tested, end to end, involving all relevant stakeholders?

On 1st June 2018, the Visa network in Europe was disrupted as a result of a hardware failure. The UK was impacted by this service failure disproportionately hard – with 97% of

debit cards in the UK issued under the Visa brand. There is something to be said about the lack of timely information provided by Visa as customers struggled to pay for goods they had already taken ownership of or required urgently (think about people filling up their cars with fuel or buying a ticket for public transport). What did prove helpful though was that the UK cash industry had tested a very similar scenario just one year before as part of the "playbook" that Cash Services UK have developed, and continue to maintain. This

provides a framework to put in place industry-wide contingency plans and provides a holistic view of the cash system in order to respond as required to ensure cash availability. If the incident had continued then participants would have been able to monitor ATM usage on a minute by minute basis and adjust their forecasting for replenishments quickly and effectively.

An annual review of contingency plans is a must for any organisation, so make plans to check with your

organisation and countries cash cycle stakeholders what your disaster plan is. At Currency Research, and particularly in our Consulting business, we are seeing a much-increased focus on ensuring viable and connected contingency plans across the cash industry.

For more information, visit our website:

www.currencyresearch.com

MEMBERS' NEWSBOARD - LATEST STORIES FROM ACMA MEMBERS

CPS CEO Adam Lawrence awarded an OBE

Cash Processing Solutions

Basingstoke, UK. 19 June 2018. Cash Processing Solutions Ltd (CPS) the cash processing technology and solutions group today announces that CEO Adam Lawrence has been awarded an OBE.

The CEO of CPS, Adam Lawrence, has been awarded an OBE in the Queen's Birthday Honours List. The OBE (Order of the British Empire) was awarded to Adam for public service and services to the community in South Wales, during his time at The Royal Mint.

Adam Lawrence OBE, commented "I am very proud to have been awarded an OBE. It's wonderful to be recognised for your efforts, but I have many many people to thank for their unwavering support and hard work in building the Royal Mint into the business it is today."

Christopher Hyman CBE, CPS Chairman added "This is a rare and significant occasion. Only a few leaders receive such an accolade from the highest office of our country. We are delighted to have Adam leading CPS to success, as the company continues its international expansion. All of us at CPS are very proud of Adam's extraordinary achievement and congratulate him on this well-deserved honour."

Based in Basingstoke, England, CPS is one of the market leaders providing world-class cash processing hardware, software and related services.



Cash Processing Solutions CEO Adam Lawrence OBE.

For the full story, view the complete press release at:
http://www.acma-asia.org/files/Adam_Lawrence_OBE.PDF

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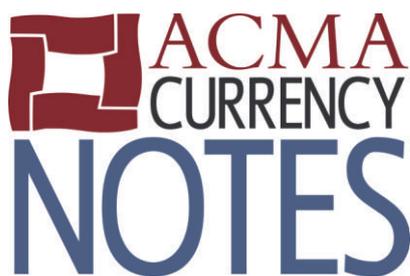
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To provide a platform for Cash Management Companies (CMCs) in Asia, Africa and Australia & Oceania to raise their professional reputation and standing in the Cash Handling and Cash Management Industry, and to act as a representative with the appropriate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

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