THE FUTURE OF PAYMENTS: MTOs, PIs, REMTECH & THE BLOCKCHAIN

PART ONE: Cash: Is the payment's king dying? or is the king creating its own separate kingdom?

Hugo Cuevas-Mohr

Although is not exactly clear how the payments industry will evolve in the near future, we agree that 2018 is likely to be a significant year for the financial services industry: banks, eCommerce, fintechs, payment institutions and other alternative payment providers. We will cover cash first (cash is still king!), then we will discuss the opening of banking rails to NBFIs in some jurisdictions (Europe, US & other countries) and then we will end with a view on fintechs and the blockchain, mostly those engaged in X-Border Payments. We are planning the 3 articles in the following three issues, as we embark in our Blockchain Series event in Sao Paulo on March 21, the European Payment Opportunities Forum on May 16 and the IMTC Forum San Juan in June 5 & 6.

Simon-Pierre de La Seigliere, the General Manager EMEA at Ingenico ePayments stated: *"Experts predict that by 2020, nearly 60% of global online payments will be done via alternative payment methods. For this to be true in Europe, building brands that consumers can truly trust will be critical for success."*[1]

Even if M. de la Seigliere believes that Europe has been slower than some of its global counterparts to adopt new payment technologies, looking at the sector from the US, and the Americas, Europe seems at the forefront of change. While digital payments are changing the face of the industry, the old cash is resilient and the war on cash launched by banks, like the derisking war, has some silver lining glimmers for the industry. I agree with M. de La Seigliere, that the Payment Services Directive (PSD2) regulations coupled by increasing consumer demand for convenient and trustworthy payment methods, including the use of cash, is causing major disruptions to the traditional payment and banking landscape.

THE WAR ON CASH: WHY THE WAR? WHO IS WAGING THE WAR?

> *Cash has been there since 800 BC.*
> *There are not that many products*
> *that have been around for that long.*
> *I can think of two: one is cash*
> *and the other is the wheel.*
> *I doubt that we will ever see*
> *a wheel-less society either*
>
> Thierry Lebeaux
> ESTA

Why we need to talk about Cash every time we talk about payments? Because even if Banks & Card Companies are waging a war on cash, cash is still king. With the hype on digital, the trend towards cash-less payments is always discussed in our industry and that was the case on our IMTC WORLD 2017 conference in November in Miami. We had a round table on Online Money Transfers and a heated discussion ensued on where the online customers were coming from and whether they were changing from cash to digital. As a Moderator I stated that Western Union reported that only 20% of their online clients were moving from their brick & mortar space. Other mixed providers (MXPs - online & cash-based MTOs[2]) have reached the same conclusion, even

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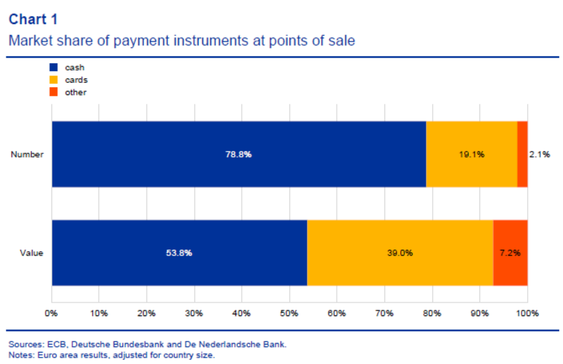
[1] http://bit.ly/2GPe6Oy

[2] MTOs: Money Transfer Operators, a broad designation of licensed MSBs (Money Service Businesses) engaged in Money Transfers, mainly RSPs (Remittance Service Providers) such as Money Transmitters & Payment Institutions, increasingly offering more than P2P, such as P2B (Bill Payment, Top-Ups), B2B (Business to business cross-border payments) and B2P (Business to people business cross-border payments).

mentioning conversion rates of clients lower than 10%. Our colleague Yakov Kofner stated in his blog[3] : *"They [customers] will continue sending cash for decades to come with transition from offline (aka, "cash agents") to online is crawling at 2% per year "*.

These MXPs feel that these online customers are coming from "outside" the money transfer industry, customers that have used banks in the past and that ease & better foreign exchange rates are driving them to their service. At the same time, most brick & mortar, cash-based MTOS, have reported growth rates in the double digits. The debate will continue without a definite answer until good research is done.

In the overall economy, cash use is growing, but digital payments too. The proportions might be changing but not at the level predicted and hyped some years ago. This past November (2017), a European Central Bank report[4] showed that cash accounts for close to 75% of the number of point-of-sale transactions in the Eurozone and 54% of the total value of all payments[5]. There is a lot of variation in cash use in Europe, In 20 out of 28 EU countries cash represents over 50% of all payment transactions. Countries like Greece, Bulgaria and Romania almost solely pay by means of cash and cash is the largest payment instrument in terms of volume in all countries, except Denmark, Sweden and Luxembourg[6].



If we cross the Atlantic Credit cash usage in the US is lower than Europe but still king. Cash has the largest share of the number of consumer transactions at 40% while in the value of transactions the share of cash is 14%[7]. In Just as an example, Mexico cash usage is close to 90% and is still projected to grow by 3 % between 2015 and 2020 and is about 27% of GDP. Banks have done everything they can in Mexico to decrease over-the-counter (OTC) withdrawals, which in fact have decreased about 1.5 Billion per year while ATM cash withdrawals have spiked[8].

In the Philippines 98% of all transactions are done in cash like most places in Asia & Africa with some exceptions, of course. The Filipino government has established a goal to build a national online payment platform for digital payments capable of managing B2B, B2P and P2P transactions. If one reads VISA's survey on Filipino habits, it is remarkable to see the report that 50% of Filipinos prefer a digital payment than using cash (?)[9].

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[3] http://bit.ly/2oBSf5C
[4] http://bit.ly/2FcP4vO
[5] http://bit.ly/2HNDeGK
[6] The Cash Report 2016 by G4S Cash Solutions and the Payments Advisory Group is probably the best European Cash Report available and a thorough source of information. http://bit.ly/2CpkzS6
[7] http://bit.ly/2CL09Pj /
[8] http://bit.ly/2BRM6L3
[9] http://bit.ly/2t0Tv7R

WHY DO WE REALLY WANT TO LIMIT ACCESS TO CASH?

When it comes to cash, banks largely pick up the bill for maintaining the cash infrastructure (cash distribution points such as branches & ATMs) and they feel there are too little revenues to balance this. Leonor Machado, from EPC stated: "*Banks are one of the stakeholders in the cash domain, yet we are one of the stakeholders that pay the bill*."[10]

The number of ATMs from banks have remained the same in the last 10 years in Europe (except for France) while the number of bank branches have been declining. It is more or less the same in the US, with the number of ATMs increasing 1-2% per year (around 435,000 ATMs in the US).

Customer hate to pay for cash in their own bank but are willing to pay for it at ATMs installed by Independent ATM Deployers (IAD's) who are increasingly active in many countries where regulators & banks have released the grasp on ATM deployment even if monopolies still abound. In the US 52% of the ATMs are deployed by IADs while 48% are owned by banks. Banks ATM fees are going up: the average total cost for using an out-of-network ATM in the US hit a record USD$4.69 per transaction with several cities, Pittsburg, New York, Washington reaching over USD$ 5.00.[11]

If both cash in circulation and the number of ATM withdrawals in Europe are increasing, indicating an increasing need for cash by the population, even while cash distribution points show a declining trend, the question that Paul van der Knaap and Taco de Vries, authors of the Cash Report Europe 2016 pose is: *Why any industry would actively limit access to a product, which is apparently in growing popular demand?*[12]

PENALIZING CASH-DEPENDENT BUSINESSES

On the other hand, banks are also penalizing companies that are heavily dependent on cash, like money service businesses such as Money Transmitters & Payment institutions by closing their bank accounts, limiting bank services and/or raising the cost of banking them. This process has been labeled derisking alluding to compliance and reputational risks, rather than discussing strategy, competition & cost factors that are driving the derisking epidemic as part of the "war on cash". Cash is still king in the International Money Transfer & Remittance Industry even with the growth of online/mobile sectors of the industry that get all the publicity and media attention.

In the payment of remittances in receiving countries, banks are also pulling away from cash payments. In their war on cash, stocking tellers with cash for cash remittance pickups doesn't make sense anymore unless their dominance in the market or brand awareness lets them make up for this cost with the foreign exchange differentials collected, making them a pricey option for clients. The Remittances Prices

[10] The Cash Report 2016 by G4S Cash Solutions – page 23
[11] https://usat.ly/2EWu391
[12] The Cash Report 2016 by G4S Cash Solutions – page 31

Worldwide Report for Q4 2017 showed the International MTO Index at 8.23 percent in Q4 2017 while banks remaining the most expensive type of service provider, with an average cost of 10.44 percent[13].

Agent banking models are a possible solution for banks to expand their network and let pharmacies and other retail establishment handle the cash and paying remittances. Agent banking models in Colombia, Brazil, Peru, Kenya and India have been use as examples of these models[14]. Whether bank-lead or non-bank lead, cash-out distribution networks are, and even more so now with the retreat of banks, still the backbone of remittance distribution networks, with forex centers, retail shops and many other cash heavy businesses getting involved in the business of paying out remittances, mostly as agents of established MTOs.

PRIVATE MONEY VS. PUBLIC MONEY?

Promotion of non-cash payments for banks leads to a shift of costs and creates an increase in revenue. Providers of electronic payment services (mainly banks) charge their business clients for using electronic payment infrastructures and also consumers pay for access to this infrastructure (transaction fees, annual subscriptions, bank account or debit card fees). Thierry Lebeaux of ESTA articulates this clearly: "*Cash is public money generating public revenue and electronic money is private money generating private revenue*."[15]

Retail outlets are also being derisked by banks, especially if they are small and cash dependent. Retail shops are now delivering cash to consumers from their Debit Cards and looking for cash-out solutions (such as remittance payments as we mentioned and even government subsidies). Cash in Transit Companies (CITs) are becoming more efficient in circulating cash in local and regional markets (by developing courier-developed logistic models to pick-up & deliver, as well as storing and servicing ATM for IADs) digitally depositing or withdrawing the value of the cash to and from the customer's bank accounts, if they have any. This is distancing cash from banks even more.

Sebastián Ponceliz, CEO of a US IAD Odyssey Group in the US, with plans to expand in other markets in Latin America explained: "*The IAD industry is having similar problems than other MSBs as banks are less willing to provide bank services. Derisking is becoming a problem for smaller IADs*". [16]

Regulators might need to play a larger role to prevent these imbalances and anticompetitive reactions of industry groups, but many colleagues feel that regulators have little room to maneuver to force banks to change and the only avenue could be the changing of regulation to open payment channels to NBFIs, which is the road that Europe has been taking. The high volume of cash and cross-border transactions in the US-Mexico border and the resulting derisking of businesses that caused them to pressure politicians,

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[13] http://bit.ly/2FCxFdo
[14] http://bit.ly/2HT9mZK
[15] The Cash Report 2016 by G4S Cash Solutions - page 23
[16] Private communication

lead to a research recently released by GAO[17]. GAO's report[18] concluded by asking federal regulators to conduct a retrospective review of regulations and their implementation and how the banks' regulatory concerns are influencing their willingness to provide services. In my opinion, nothing will be resolved in the US and the situation will become much more critical (see all recommendations in GAO's report).

In many countries, as banks withdraw from their role in the Cash Cycle, both domestically and internationally, the companies managing cash are transforming themselves from classic Cash in Transit Companies (CITs) to Cash Management Companies (CMCs)[19]. These CMCs are taking more activities in the cash cycle by becoming more actively involved in the liquidity, cash management, cross-border transportation, foreign exchange offerings, etc. something they are doing as part of their business model or as a service to their clients. Legislation in Europe (PSD and PSD2) which allows companies to obtain PI or TPP status, or in the US a Money Transmitter license, are moving in this direction. We will discuss below, ESTA, the European Cash Management Companies Association and the evolution of its membership as example of this shift. Technology is also playing a key role in cash handling and we need more fintechs working in this expanding area. I have been impressed with a company such as Dolarex[20] in the US-Mexico border, an interesting example of careful and methodical evolution of cash & foreign exchange handling, developing sophisticated technological & compliance models to serve cash clients in both sides of the border.

WHAT IS LAW ENFORCEMENT POINT OF VIEW ON CASH?

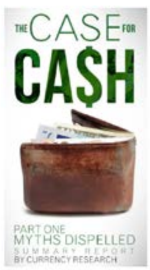
This Europol Report on the use of cash for illegal activities[21] will be an answer. Of course, it does paint a very dark use of cash which reinforces bank's views on its decisions of removing themselves from the Cash Cycle. In the introduction, the Europol Chief Rob Wainwright says: "*money laundering schemes detected by law enforcement are still largely characterised by traditional techniques, in particular the use of cash*." The report should be read by cash-dependent businesses because there is a lot of common ground in it to make the industry, regulators and law enforcement to work together to handle cash more efficiently and at the same time prevent criminals for using it for their illicit activities.

I think we all agree on this statement on Europol's Report: "*Cash is largely used for low value payments and its use for transaction purposes is estimated to account for around one-third of banknotes in circulation. Meanwhile the demand for high denomination notes, such as the EUR 500 note. not commonly associated with payments, has been sustained. These are anomalies which may be linked to criminal activity*." Some of us might also agree with the decision by the European Central Bank to withdraw the €500 euro note from circulation. Germany doesn't seem to reach the same conclusions.[22] The increase in cash use reporting (coming now in the US to almost any sector in the industry: jewelry,

[17] GAO: Government Accountability Office, an independent, nonpartisan agency that works for the US Congress
[18] http://bit.ly/2Fz77d3
[19] http://bit.ly/2CpkzS6 - page 49
[20] http://www.dolarex.com/
[21] http://bit.ly/2Fce9qo
[22] http://on.ft.com/2F9URlD

attorneys, real estate) is widespread around the world. I tried to find, through my compliance colleagues and doing an online research, what percentage of money laundering institutional fines, in the last 5 years, at least in value, were to cash-based businesses or related directly to the illicit handling of cash but I was not able to do so at the present moment. I hope to find an answer soon.

THE CASH MYTHS DISPELLED



We can't discuss cash without mentioning Currency Research[23], an international private organization that fosters "*efficient, secure, and optimal cash production, handling, and usage, while supporting citizens' right to Cash as a viable payment option*" supporting "*central bank's efforts as an operator, overseer, and/or catalyst for a robust, safe, and secure payment system*"[24]. Their research papers are a must for anyone interested in cash and to the risk of being unfair to the wealth of information they produce[25] I want to point you to their "Cash Myths Dispelled" paper from July 2014. From *"Cash is expensive", "Without cash crime would decline or disappear", "The cashless society is just around the corner"* to *"Cash demand is declining"* and more, the 16 myths collected and compellingly commented are worth reading. I have prepared a two-page abbreviated version of the summary[26] to encourage you to read the full summary[27] or ask for the full report[28].

It is important to note as Currency Research points out, that researchers are more and more debating the once accepted views that "*cash is more expensive for society*" or "*financial inclusion means getting people out of the use of cash*". Even Aid groups are reconsidering the use of cash and have launched the Use of Cash Transfer Program (CTP); CTP in humanitarian assistance has grown to $2.8 Billion in 2016 up 40% from 2015 and approximately 100% from 2014[29].

After reading the point of view of the cash management industry we can't help in wondering if such stories as the Guardian's report[30] "*Revealed: Cash eclipsed as Britain turns to digital payments*" is part of the hype on cashless payments and the war on cash. Francisco Sanchez-Apellaniz, CEO of Moneytrans[31] a leading MTO in Europe points out: "*Although we have a large presence in Europe with our agents and branches serving our large number of cash users with foreign exchange & money transfer services, all the media wants to now about is our newer online developments. It's all the hype, no doubt about it.*[32]" A more balanced approach of the media on the use of cash is certainly needed; but we need to accept that readership of new forms of payments and digital transformations attracts much more news readers and viewers. Just see how the media has boosted the VC & blockchain industry to this sector's investment benefit in our third article on this series on payments.

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[23] http://currencyresearch.com/
[24] http://currencyresearch.com/about/
[25] http://currencyresearch.com/consulting/reports/
[26] http://bit.ly/2FPIt8r
[27] http://bit.ly/2H2oXVh
[28] Ask for the full report to rhyde@currency-research.com
[29] http://bit.ly/2osjlwX
[30] http://bit.ly/2oEpmGY
[31] https://www.moneytrans.eu/
[32] Private communication

THE EVOLUTION OF THE CASH MANAGEMENT INDUSTRY

The traditional MTOs are probably not yet aware of the strength & challenges of the cash management industry, not in the banking sense of the term[33] but in the currency sense of it. One example of that is ESTA, the European Cash Management Companies Association[34], the recognized voice of this industry that ensures the safety, reliability, availability and efficient means of cash as a payment system. Established in Brussels in 1975 as non-profit as the "security transportation" association, the group "*has evolved over time due to the changing nature of the economy and of payments systems and methods […] Cash is efficient, cash is solid, cash is reliable, cash is less expensive. Cash means fiscal revenue to our governments, and in uncertain times, cash is a safe haven. First and foremost, cash is probably the most secure payment means available to consumers.*"[35] ESTA is also active in the AML & CTF areas[36].

Meet also the Cash Management Association of the Americas (CMAA)[37] , The Asia Cash Management Association (ACMA)[38], ATM Industry Association (ATMIA)[39] and the International Association of Currency Affairs (IACA)[40]. And last but not least, meet Cash Services[41], founded in 1982 a non-profit membership association serving the UK cash industry "*acting as a focal point for the cash cycle and offering strategic direction for the collaborative elements of wholesale cash management*". Its members include the Bank of England, UK's Treasury and Royal Mint, many banks and cash handling operators.

We, as an industry, should get a closer look to the cash management associations around the world so they understand the challenges of the international money transfer industry, especially RSPs, with cash, derisking, cash use by migrants, financial inclusion of migrants and their families, etc. I want to encourage you to participate in ETA's yearly meeting coming in May in Budapest on May 13-15, 2018[42] entitled "Cash vs Alternative Means of Payment: Opportunities or Threats? which will closely converge with our IMTC EMEA 2018[43] event in Brussels on May 16-18.

TO FINALIZE: CASHLESS PAYMENTS

Reading this article, do not come to the conclusion that governments might not continue their drive for digitalization and the drive for the development of better and more accessible non-cash payments systems. I do think regulators are increasingly more alert to the efforts of groups to favor one payment system over another and the conclusions one group or another do of survey data. The most important aspect of cash vs. cash-

[33] Cash Management: The treasury function of a business, responsible for achieving optimal efficiency of funds available between receivables, money coming in, and payables, money going out.
[34] https://www.esta-cash.eu
[35] http://bit.ly/2I11kht
[36] Cash Payment Limitations and the fight against the funding of terrorism, Executive summary - Response to the EU public consultation, 30 May 2017 - http://bit.ly/2H0gh1Q
[37] http://cashmanagementassociation.org/
[38] http://acma-asia.org/
[39] https://www.atmia.com/
[40] http://www.currencyaffairs.org/
[41] https://www.cashservices.org.uk/
[42] http://bit.ly/2oFvjn3
[43] https://imtconferences.com/imtc-emea-2018/

less is financial stability of financial services companies in the middle of this tectonic shift, by maintaining a healthy mix of options and controlling anticompetitive initiatives of the parties involved.

Cashless payments are indeed growing all over the world, no doubt about it. The total volume of non-cash payments has had an annual growth in Europe of 4.3% growth since 2009. Card transactions are almost 50% of all non-cash transactions, growing at 8.4%. Credit & Debit transactions account for the other 50% (emoney transactions and checks are negligible).

In the US after cash having 40% of the number of transactions, debit cards follow at 25% and credit cards at 17% with electronic methods (wires, online banking bill pay and bank account number payments) at 7% same as checks. Others type of payments represent less than 5 % (text and mobile payments). In value, where cash is 14%, electronic payments make up 27% and Cheques 19% while Debit cards is 19% and Credit Cards 18%[44].

Debit Cards are the backbone of online/mobile transfers, but not in the new mobile technologies such as Apple Pay and Android Pay where credit cards reign. The idea of credit payments is counterintuitive to certain cultures, especially European ones. In the Netherlands, bank transfers (debits) are preferred by 60% of shoppers same as Germany, Austria and Scandinavia where people are more hesitant to adopt credit-based payments. So, the battle between debit & credit cards will continue with the world showing preference for the former and regulators opening channels for alternative financial service companies and fintech firms, to the debit card rails.

We must mention that mobile money use also continues to grow and not only in Kenya with 93% of the adult population registered for M-Pesa and 60% actively using the service[45], a total of more than 11.6 million people (watch the M-Pesa Field trip[46] we did in Nairobi in September 2017 to see M-PESA in action). More than 40% of the adult population in Tanzania, Uganda, Ghana, Zimbabwe, Gabon, Namibia and Paraguay are using mobile money actively (in a 90-day cycle)[47]. Of course, mobile money relies a lot on cash one way or another (cash-in, cash-out) but the use of funds from wallets, independent of cash, is increasing everywhere with airtime top-ups, domestic P2P payments and bill payments.

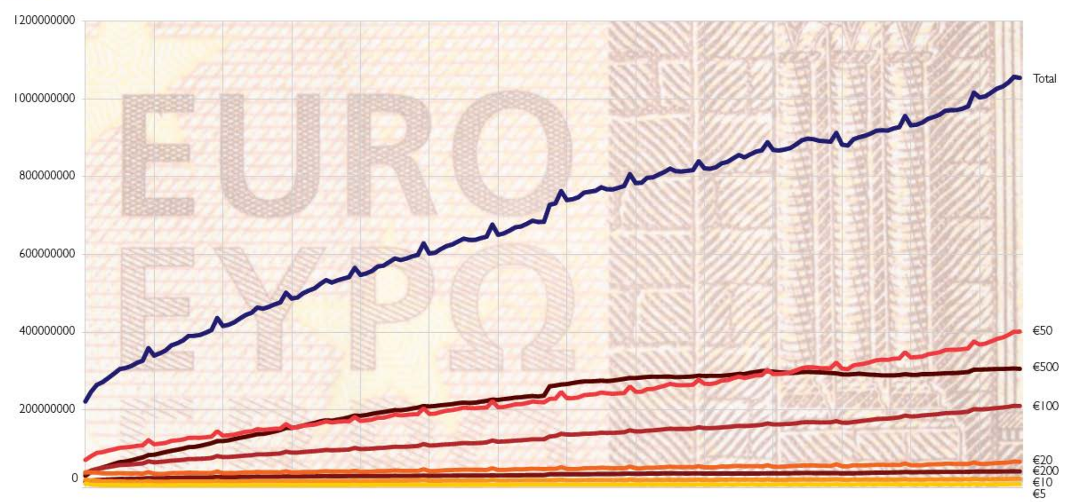
CONCLUSIONS

Cash won't die anytime soon, and cash-based systems will keep on finding ways to survive the war on cash waged by banks and card companies, but at the same time, cashless payments will continue to increase their share in the market. I see a future that is indeed now emerging, where cash will have its own ecosystem where its distribution will be more efficiently managed and controlled, also scrutinized, with the help of technology, benefitting all the users (the public) and the cash-dependent businesses that serve them. This cash ecosystem will be digitally linked to the cashless world, where I can even foresee the role of Distributed Ledger Technologies (DLTs) & blockchains playing an increasingly significant role in a more balanced and democratic management of payment systems worldwide.

44 http://bit.ly/2CL09Pj
45 http://bit.ly/2F0EVPo
46 https://www.youtube.com/watch?v=zIRkoiZluCE
47 http://bit.ly/2t0nWuO

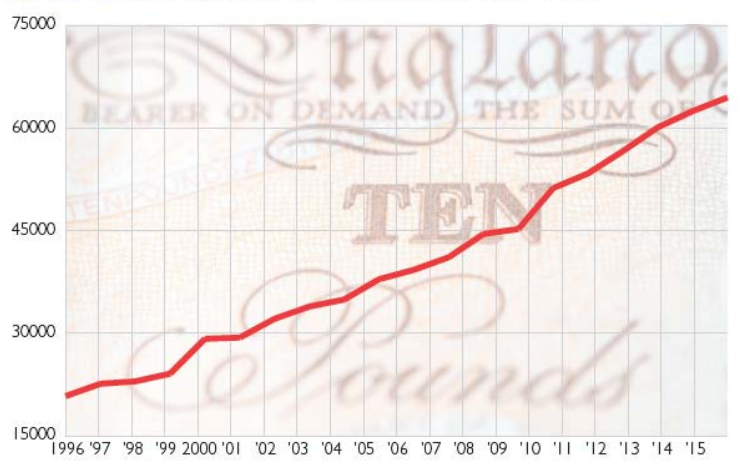
Regulators will need to continue learning about these shifts, making efforts to be neutral and fair as they supervise competing businesses. Finding ways to encourage competition and openness is the need to make all payment rails available to more entrants, which is the subject of our next article where we explore payment opportunities in Europe, the US, Mexico and the Philippines as well as regulatory efforts in such places such as Puerto Rico, Gibraltar, Lithuania. Finding ways to control derisking while the payment systems respond to the evolution of the financial services landscape is, of course, crucial.

Figure 8 Cash in circulation (Value, Eur, per denomination, 2002 - 2015)



Source: ECB statistics

Figure 10 Cash in circulation (x MIO GDB, Value, 1996 - 2015)



Source: Bank of England, statistics