



National Payments Schemes: Drivers of Economic and Social Benefits in Growth Markets

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Foreword and acknowledgements

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The authors would like to note that any errors, either of omission or commission, in this document are entirely their own. The views presented herein represent those of the authors and are not necessarily the position of any of the organisations that we individually work for or advise.



Authors



John Chaplin is an industry partner with Apis Partners and Director at Anthemis Group. He also sits on the board of and advises a number of leading payments organisations especially in Africa, Europe and Middle East. He previously held senior roles at both Visa and First Data where he gained experience working with payments providers in many countries. He is also the organiser of the biannual Global Payments Innovation Jury.

Email: john@chaplinonline.com



Andrew Veitch is an industry partner with Apis Partners and Director at Anthemis Group. He has specialised in card payment schemes and interbank processing for 20 years. He worked previously at Visa Europe, Trionis the pan-European switching organisation, and Account Consulting.

Email: andrew.veitch@anthemisedge.com



Prof. Dr. Jürgen Bott is Professor of Financial Services at the University of Applied Sciences Kaiserslautern, Germany. He worked at JP Morgan, Deutsche Bundesbank and McKinsey. He has worked as an IMF Technical Expert in Payments with central banks in developing markets and has also advised central banks and payments organisations throughout Europe.

Email: jbott@jbott.de



Opening the floodgates of opportunity

A Note from Matteo Stefanel and Udayan Goyal Managing Partners, Apis Partners

If studied through the prism of positive, impactful social change, then the economic opportunity presented by global growth markets comes down, broadly, to affecting large-scale financial inclusion. At Apis Partners, we strongly believe that a robust and efficient financial services sector is the cornerstone for developing sustainable and equitable growth models across key social sectors (food production, healthcare, education) and thus creating paths out of poverty.

Amongst the many impediments to financial inclusion is the lack of a cost effective payments infrastructure, and expensive international card schemes are often a major culprit. As this comprehensive global study finds, cheaper and more agile domestic card schemes minimise financial frictional costs and crucially, foster change from mostly physical cash economies to de-materialised payments ones. This becomes particularly relevant in an age of rapidly evolving mobile payments infrastructure, which requires a cost effective merchant acceptance platform.

This research, prepared by Apis' industry partners John Chaplin and Andrew Veitch, in collaboration with Prof. Dr. Jürgen Bott, focuses on the decisive importance of national payments schemes for kick starting the growth of cost-effective payments infrastructure, and thus boosting financial inclusion.

We found that domestic schemes run at approximately 45% of the costs of the international card schemes on average, giving them the ability to lower costs for participating banks and ultimately merchant acceptance. Banks in turn can better respond to pressures for low cost payments. Domestic schemes operate at lower costs not only due to their streamlined business models but also because the international schemes spend considerable sums on marketing and work with high profit margins as demanded by the need to deliver quarter on quarter growth to public shareholders.

International payment schemes come with the baggage of misaligned incentives and end up trying to force-fit developed market solutions to dynamically different growth markets scenarios (the "one size fits all" philosophy). On the other hand, a better appreciation of contextual circumstances makes domestic payment schemes more disciplined on cost of infrastructure and having an ear to the ground also helps in pivoting effectively in response to customer needs. Many of those interviewed in this report also voiced their skepticism

about international card schemes being unsuitable partners for critical national programmes such as identity schemes, which are going a long way to bringing the vast unbanked populations into the fold of formal financial services.

This report is based on interviews and contributions from 25 national payments schemes in 5 continents; 6 recently departed former executives at the major international card schemes; executives from a number of major retail banks; executives at 10 regulators and central banks. The authors found ringing endorsements for national payments schemes and found thriving examples like RuPay in India, which is competing with Visa, MasterCard and Discover.

In short, we are witnessing a need and a unique opportunity in global growth markets, via local, responsive domestic schemes, to rethink the ownership, architecture and incentive framework of card payment schemes and more importantly, promote financial inclusion. Our own experience in this field, with the development of schemes such as Mercury in the UAE and Verve in Nigeria, has shown just how effective local schemes can be when deployed in the right context. Indeed, today the technological know-how for developing a domestic payment infrastructure is readily available, putting this tool well within the grasp of entrepreneurs, and at Apis Partners, we aim to continue to encourage such deployment and catalyse the growth that these businesses are expected to experience.

Matteo Stefanel



Udayan Goyal



Executive summary

'Increased competition should favour domestic schemes provided they deliver excellent service and value'

Domestic scheme CEO

Purpose of the project

In this worldwide research project we set out to examine whether national markets should invest in domestic payment schemes or bow to the inevitable that in a globally interconnected world, domestic card payments should in effect be outsourced to the international giants. Our focus has been mainly on debit cards which form the vast majority of the market in most countries, where domestic transactions typically account for greater than 95% of usage and for which cost-efficiency is key because they are part of an overall account relationship and not a standalone product. We have looked at this from the perspective of all major stakeholders including the central banks and regulators. The premise behind the research was that a market has a choice:

- » To use international products for all customer segments
- » Or, to adopt a segmentation approach with international products being used for some needs and domestic products for others

We did not consider the option of a domestic scheme meeting all requirements, which we do not see as feasible in all except the very largest market(s).

We considered the relative economics, product functionality and governance & control implications of the alternative approaches. One of the participants in the research programme suggested that best approach for a market was to establish local schemes and infrastructure initially and then look to migrate in time to international solutions with the domestic capabilities being

discontinued. We have looked at whether domestic schemes can have a long-term value proposition or whether this transition model reflects the reality of payments evolution.

It was clear that payments challenges are different in the different regions of the world; the challenges in say Africa, where infrastructure is often lacking and regulation is still relatively light, are fundamentally different from those in Europe where there is arguably redundant infrastructure and banks and schemes feel over-regulated. Despite the regional differences and also significant individual country variations, we have identified common themes and lessons. The objective of the project is to provide frameworks and insights for the various stakeholders to evaluate how much of a domestic approach to card payments to develop. The answers will always be specific to a market but the questions should be broadly consistent.

Major findings

The large number of domestic schemes that took part in the research were on balance more optimistic about their prospects than they were two years ago with 56% optimistic about the future compared to 32% being pessimistic. The optimism is driven by two key factors:

- » They offer lower overall costs to their participants than the competing international schemes which is vital as the overall industry comes under financial pressure
- » Their ability to develop products suited for the local market often involving integration with other domestic service providers



Executive summary

The major reason for pessimism is the difficulty they see in coping with the ability of the International Card Schemes (ICS) to deploy extensive financial firepower, particularly in the form of incentives, to persuade issuers to switch to their brands.

The traditional model whereby domestic debit schemes could concentrate on meeting local in-market needs and cobrand with either MasterCard or Visa for international usage no longer seems to be an option. The international schemes are clearly seeing the domestic schemes and also domestic infrastructure providers as competitors and a major impediment to them driving revenue from a market which is now much more important following stock market listing.

56%

are **optimistic**
about the future

The domestic schemes cite low cost as one of their key advantages but the international schemes also like to make the same claim. The central banks all expressed a view on the relative costs of domestic schemes but in many cases this was not based on sound information. Comparing the costs of complex multi-party payment schemes is notoriously difficult but we are confident that we are correct in stating that domestic card schemes, which are predominantly for debit and not credit, operate at an average of 45% of the cost of utilising the international schemes for domestic transactions, with a range of 25-75%. The lower costs arise because:

- » **There is an in-built frugal approach to budgeting and cost control in most domestic payment schemes**
- » **The undoubted scale economies of the international schemes are more than offset by their marketing & sponsorship costs, significant acquisition & innovation costs and higher profit margins demanded by the stock market**
- » **The building blocks of a domestic scheme and infrastructure (switching systems, chip specifications and scheme rulebooks) are now more readily available from competent providers at a reasonable cost**

And there does seem to be evidence that the domestic schemes because of their proximity to the market can develop some unique capabilities despite lower innovation budgets than the international players. The Portuguese ATM network and the Nigerian Quickteller system are just two examples of the creativity of domestic players. The previous report in 2012 suggested that domestic organisations should not always build everything in-house and we see the announcement of shared wallet technology between BKM in Turkey and Redsys in Spain as a sign that this may be starting to happen.

In our previous research, domestic schemes stated that they sometimes received harsher treatment from the regulatory authorities than their international competitors. Our discussions with central banks and regulators showed that a very even-handed approach is followed in most markets although clearly they do struggle to gather information about how the international schemes operate whereas the domestic schemes tend to be more open. It is ironic that in some markets it is regulatory action that prevents the lower cost advantage of domestic schemes from leading to lower merchant charges and greater acceptance; in this way regulators have unintentionally strengthened the hand of the international schemes.

Achieving mobile money interoperability is a key policy goal in developing markets and all the stakeholders support the central bank enforcing technical interoperability if market forces fail to create it. However there is a concern that if central banks attempt to set the commercial interoperability rules they are exceeding their remit.

Domestic debit card schemes as low cost providers are ideally placed to play a major role in enabling financial inclusion in developing markets especially as the currently unbanked population are likely to prioritise low cost above international acceptance.

Freedom from external political interference in domestic schemes is becoming a more significant factor for a number of parties as witnessed by the debates that are being held in Russia about sovereignty in payments. Although technologically processing of payments transactions in a global cloud is becoming more feasible, the risks of doing this are seen by many central banks/regulators as material and they are considering whether this justifies intervention.



Executive summary

Authors' thoughts

There clearly is a place and a future for domestic card schemes and infrastructures and eventually domestic mobile solutions despite the globalisation trend. It is hard to imagine that the international card schemes will not play a role in all markets and in some cases they may be the sole providers. But there are very sound reasons why a number of markets will choose to operate domestic schemes as the preferred solution for in-country payments that in most cases are the vast majority of the transactions. This approach has the potential to be lower cost, to create services more suited to local market needs and to have a better relationship with regulators. In our view in a number of markets the international schemes have not done a good job on behalf of their stakeholders in dealing with regulators. Freedom from the risk of foreign political interference in domestic payments is also going to be increasingly important in future and this is an area where domestic providers should have an advantage. When payment card schemes are linked to national identity programmes we will probably see central banks showing a positive preference for domestic scheme providers.

To exploit the potential opportunity for domestic approaches to payments is not an easy task. MasterCard and Visa are global giants with vast financial resources and an increasingly commercial approach. Faced with this, the existing domestic schemes have to up their game; they have to recognise that they are now in a much more competitive market and act more commercially.

'There is clearly a place and a future for domestic card schemes and infrastructures and eventually domestic mobile solutions...'



In Europe the domestic schemes have a particular challenge arising from the development of the single European market. Defining a market in national terms in Europe is becoming increasingly less relevant in payments as it is in many other sectors such as airlines. The logical consequence of this ought to be consolidation of domestic schemes into two or three large players that can be effective competitors to MasterCard and Visa; but this can probably only happen through a commercial consolidation process rather than a complex alliance which all can join but will be very complex to negotiate. The question is whether the current bank owners of the schemes will support such a commercial consolidation process. Elsewhere in areas such as Africa and the Gulf region we may see the development of regional or multi-country schemes, initially achieved by reciprocity arrangements, rather than a '1 per country model'.

The role of central banks and regulators is absolutely critical but is not easy. The scale economies gained by winning the market share war create an almost irresistible temptation for schemes to take aggressive commercial actions to grow their share and that leads to the dilemma of regulators. If they follow a light-touch approach and remain completely neutral between market participants, market actions can lead to an inefficient end-state for the country. But if they intervene, then the risk of unintended consequences of regulation is considerable. However, it seems inevitable to us that the global trend towards tighter regulation in payments will continue, although the industry has a right to expect better regulation. That means bringing together competition and payments regulation into a single framework and accepting that if the policy objective is to have a number of competing payment schemes in order to drive down costs and encourage innovation, the regulators have to be educated in how the industry works and how easily unlevel playing fields can develop.



Introduction

'The balance between domestic and international solutions is well and truly on the agenda...'

In 2012 we carried out research into whether national approaches to card payments were any longer relevant in an increasingly global world. The research took place against a background of a number of European banking communities openly considering the viability of the domestic schemes and in some cases deciding to cease business, with banks migrating to the solutions of the international card schemes. Seventeen nationally based payments organisations participated in the project which led to four key findings:

- » The relative pessimism in Europe (partly due to the unexpected consequences of regulatory action) was counter-balanced by optimism about the future in other areas of the world especially developing markets
- » The low-cost model of domestic schemes is one of their key advantages but the lowest-cost model imposed by bank owners has in several cases left them with insufficient resources for product and service development
- » Although domestic schemes are by their nature domestic, they all need to have an international strategy and not automatically default to cobranding with MasterCard and Visa
- » The major threat to domestic schemes was incentive payments by the international schemes as an inducement to banks to drop the local solution despite the belief that they have overall lower costs in the long-term

Since the report was published, we have received considerable interest and feedback from domestic providers but also from a much bigger audience of retail banks, central banks/regulators and organisations promoting financial inclusion in developing markets. This confirmed that the balance between domestic and international solutions is well and truly on the agenda of most stakeholders in the industry.

This further research initiative is designed to respond to the questions and issues raised by stakeholders about the first report. The research is based on the premise that national payments communities have a choice in terms of card payments (and eventually other forms of electronic retail payments as well):

- » To rely solely on the international card schemes for products and interbank infrastructure
- » Or, to operate domestic solutions/approaches for some needs alongside the international providers' offerings

This means that the international schemes (primarily MasterCard and Visa) will almost certainly form part of the payment solutions set in any market; the question is how large that role will be. At one extreme, a country can have domestic solutions for domestic payment needs (which are typically 95% of the total) and use the international solutions for cross-border situations. The other extreme is for international solutions to be used for all situations whether domestic or cross-border, and there are also intermediate approaches.

The research examines the factors impacting that choice of approach:

- » Economic efficiency for the aggregate of the stakeholders in a market
- » Ability to develop solutions suited to the local market
- » Governance and control implications

To carry out this project we have received input from a large number of domestic payments providers, from central banks/regulators, from the international schemes via proxy through interviews with six recently departed ex-executives (**the ex-ICS execs**) and from retail banks that have to make the choice between the two approaches to payments. We also carried out primary research on the issue of comparative payment scheme costs.



How stakeholders view the prospects for domestic payments providers



“RuPay will be available at a cost which is much less than those of international cards. For clearing and settlement of each transactions, banks will have to pay 40 per cent lower fees in the RuPay platform compared to the international platforms and the fees will be in Rupee rather than US\$”

GS Sandhu,
India Financial Services Secretary

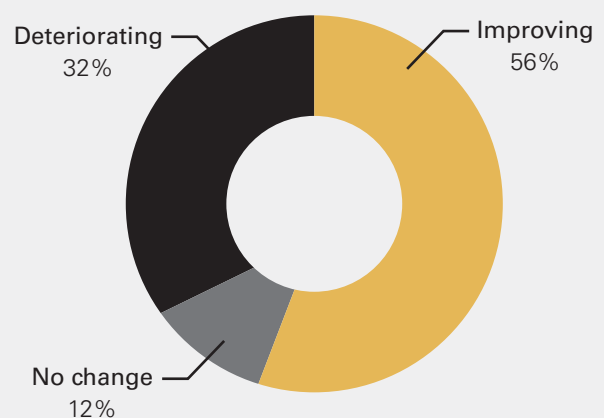
One measure of the level of interest is that we had 25 submissions from national payments providers (mostly card schemes and some national switches) compared to 17 for the last project. These providers came from all 5 continents so the interest was truly global. We also obtained input from 10 central banks/regulators from 3 continents.

In Europe some of the smaller domestic debit schemes are on the ‘endangered species’ list. Laser in Ireland, PIN in Netherlands and Pankkikortti in Finland are all in their death throes and some more in Scandinavia are threatened. Their problems can largely be attributed to their relatively

small scale, the SEPA programme which is designed to remove many of the country specific practices and retrenchment of their major bank clients. But elsewhere, domestic schemes are performing well and there are some new arrivals on the scene either launched like RuPay in India, announced like Mercury in UAE or in the advanced planning and development stage. It now seems inevitable that Russia will be joining the list of domestic schemes.

We asked domestic schemes how they feel about their prospects. On balance, there was a sense that their prospects have improved.

Figure 1: How domestic schemes see their prospects?



Note: % of scheme survey respondents



How stakeholders view the prospects for domestic payments providers

The retail banks in the survey are split on this issue and revealed a paradox and a dilemma.

The retail bank paradox: None of the banks in countries wanted their domestic scheme to be wound up; they all felt that would be damaging for the industry as the domestic scheme is seen to be a lower-cost option for the medium to longer term. However, in the shorter term, some of them wanted to be able to migrate to international scheme solutions (mainly for the reasons of higher interchange) even though that damages the ability of the domestic scheme to continue to be low cost.

The multi-country bank dilemma: Banks want to be able to enjoy scale-pricing benefits for larger volumes so aggregation is important. For a multi-country retail bank (of which there are increasingly few) this can mean consolidation across borders and therefore domestic schemes/networks are an impediment to this. However they also want the local market support that the domestic schemes provide best. With the possible exception of Europe, this uncomfortable choice will not go away soon.

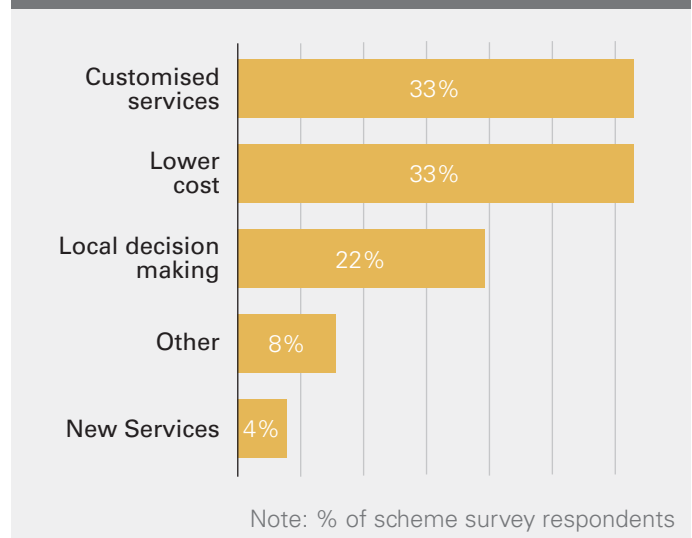
In terms of what drives this relative optimism of domestic schemes, the answer lies in the benefits they consider they provide to their markets.

The main strengths that domestic debit schemes consider they have relative to international schemes are:

- » **the ability to build services for the local market, especially where interfacing into other non-card payment systems is required**
- » **provision of services at a significantly lower cost**

Building services for local market requirements often involves combining card transactions with other domestic payments services such as ACH (debits and credits). Many ACHs already play a key role in card processing (examples are STET in France which clears domestic card and ATM transactions, Vocalink in UK which switches and clears almost all domestic ATM transactions and BankServ in South Africa which switches and clears card transactions and runs the ACH). The often close connection between ACHs and domestic card schemes should make it easier to develop products that involve card and ACH functionality. The international card schemes do not have such strong relationships and often consider themselves in competition with ACHs. If the move towards real-time linkage to bank accounts develops serious momentum, the domestic card organisations are in a much better position to adapt to and exploit this than their international competitors. This could create a very strong competitive position for those organisations processing both card and ACH-type transactions

Figure 2: What are the main benefits of domestic schemes?



especially if they also have close links to a card scheme.

In contrast the pessimistic feelings of the domestic schemes are driven by the threat that they see coming from the international payment schemes. Top of their list for threats is the payment of incentives by the ICS which for many banks can neutralise the lower long-term cost advantage of the domestic scheme. All the other threats are of a lower order of magnitude and are to some extent capable of being addressed but the incentives, which they see as creating an un-level playing field are totally outside of their control.

Perhaps because most debit cardholders only need cash access when travelling overseas and many never travel at all, the domestic schemes ranked the challenges in arranging international acceptance as a relatively low threat.

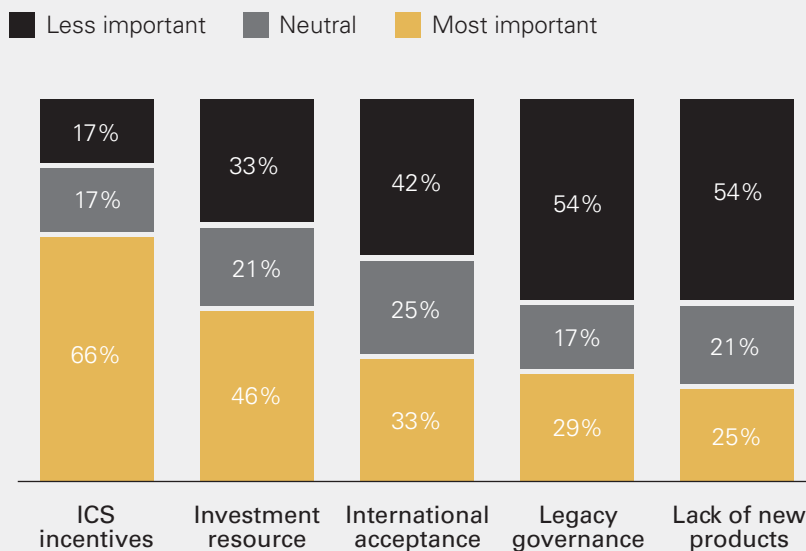
The domestic schemes acknowledged that MasterCard and Visa have done a superb job in arranging and then managing international acceptance; for a long period, one or other of these organisations was the default international partner for almost all domestic schemes.

The ex-ICS execs were unanimous that the international schemes would now rarely want to do such a deal because essentially they need to move the domestic scheme aside to allow them to fully drive revenue from the market. Similarly the domestic schemes are coming to the realisation that MasterCard and Visa are risky partners for them and consequently cobranding between domestic schemes and either MasterCard or Visa is now rarely an option for either party.



How stakeholders view the prospects for domestic payments providers

Figure 3: What are the main threats to domestic schemes?



Note: % of scheme survey respondents

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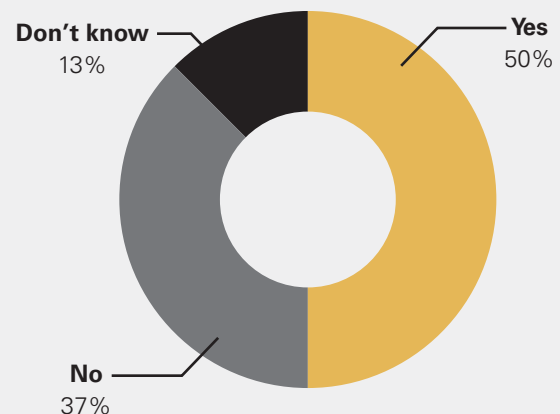
- » Acceptance network in 185 countries & territories
- » Global network of 1.4m ATMs
- » POS network of 28.8m merchant locations
- » Issuance scheme partners include ATH (Puerto Rico), BC Card (South Korea), Mercury (UAE), RuPay (India), Verve (Nigeria)
- » Acceptance network partners include CB (France), JCB (Japan), Link (UK), Interswitch (Nigeria), UnionPay (China)

This is principally the result of the conversion of the international schemes from bank ownership to stock market listing. In the old order where banks owned both the domestic and international schemes, their preferred option was often a domestic scheme for local transactions with international acceptance added via a cobranding arrangement with the international schemes. When such an arrangement was put in place, although the international schemes did not generally like it they had no choice but to accept it because their bank owners wanted it that way. But now the game has changed with the international schemes no longer owned by banks and not wanting to see exploitation of the domestic market conceded to the domestic scheme. This is one of a number of manifestations of the international schemes now increasingly being in competition with their former owners, a situation to which many players have not yet fully adapted.

The inability for a domestic scheme to agree a cobranding deal with MasterCard and/or Visa has created a gap which Discover has started to exploit. Discover has been selected as an international acceptance partner by many domestic schemes and almost 60% of the scheme respondents see Discover as a viable international acceptance option. However 40% believe they still have considerable work to do to improve their coverage in certain geographies where they are relatively weak; they also have some considerable challenges to resolve in bringing together their different acceptance marks. The

schemes that partner with Discover point to their willingness not to become an active participant in domestic markets and not to assess domestic usage fees. UnionPay International is also a potential international partner with significant long-term potential. They now have a global acceptance network of 12 million merchants and 1.1 million ATMs but they seem currently to have a less defined proposition for domestic schemes.

Figure 4: Are Discover and UnionPay viable alternatives to MasterCard and Visa?



Note: % of scheme survey respondents



How stakeholders view the prospects for domestic payments providers

'The banks are now providing us with development funds where there is a business case'

Domestic processing company CEO

The domestic schemes are concerned about their lack of investment resources and 46% of them see this as an issue. However they have clearly learned how to derive maximum benefit from the funds they have and as a consequence only 25% are concerned about their ability to introduce new services to meet market requirements. There is an impressive list of announcements of new services from the international schemes, generally through acquisition, but the domestic schemes and infrastructures are also innovating in a more low-key way but no less successfully. Chip cards have now become ubiquitous but it was domestic schemes in France that pioneered them. Single message debit was developed by domestic schemes not their international counterparts. ATMs are often a forgotten area but there is considerable innovation in this area as shown by two clear examples of the Portuguese and Nigerian ATM networks run by the domestic scheme.

In Turkey, BKM the domestic infrastructure provider developed the BKM Express wallet having failed to get an offering from the international schemes that met the needs of the Turkish banks.

In UK, there is a determined push by Vocalink the processor for the ACH and the national ATM network to make the Zapp scheme the preferred solution for mobile payments. And in India, RuPay which is currently being issued at the rate of 3 million cards/month is promoting the use of a range of segmented products such as the Kisan Credit Card as a finance tool for farmers.



Multibanco ATM network – Portugal

11,900 ATMs provide an extensive range of services to Multibanco cardholders in Portugal that are beyond the functionality of the international schemes networks.

Services include:

- » Pay utility bills (electricity, gas and water)
- » Pay services and purchases
- » Buy tickets for cinema, concerts and shows
- » Pay social security contributions
- » Pay income tax and VAT
- » Recharge mobile phone credit
- » Make interbank transfers



Quickteller network – Nigeria

Value-add services provided by domestic partners, offer services to 20m Verve cardholders. Services distributed via 10,000 ATMs, mobile apps and website.

Services include:

- » Pay utility and cable TV bills
- » Make payments for airline & travel bookings
- » Buy event tickets
- » Send & receive local interbank transfers
- » Receive international transfers
- » Buy mobile airtime



The economic case for domestic schemes

“International schemes are expected to work 6x more efficient than national schemes”

European central banker

“It is important to distinguish between internal costs and the price that the bank pays. We certainly had low marginal transaction costs but that is not what the banks pay. Working out all the charges for a bank is very difficult”

ex-ICS exec

A number of stakeholders assert that the MasterCard and Visa international schemes have enormous processing volumes that drive significant economies of scale and that they are truly the lowest cost global producers.

However opinions vary widely as the above quotes show. This is a particularly important issue in considering the viability of domestic debit card schemes because they consider low cost to be one of their main advantages and yet the international schemes like to claim the same ground. To inject objectivity into the subject, we studied the actual costs of domestic card schemes and infrastructures from 5 countries from different regions, and compared their pricing structures for given volumes against MasterCard and Visa pricing.



The methodology and key assumptions to ensure objectivity were:

- » 5 countries drawn from developing and developed markets
- » Domestic (i.e. in-country) transactions only with a market size of 1 bn transactions/annum
- » Domestic transaction processing and scheme assessment fees included; start-up/one-time costs and interbank transfer fees (i.e. interchange) excluded
- » Fees gathered in local currency and converted to US\$
- » Considered from issuer and acquirer perspective separately and then combined to give whole market position
- » Total transaction volume split between 10 issuers and 10 acquirers each with different percentages of the total market, ranging from 4% to 20%
- » Domestic scheme pricing provided by schemes and validated by banks
- » Average transaction value (ATV) of US\$75
- » International scheme fees provided by members on assumption that either MasterCard or Visa has 100% of the market; 30% average discount assumed against standard prices



The economic case for domestic schemes

The analysis showed that based on the data from the 5 markets, the cost of the domestic scheme approach compared to the cost of using one or other of the international schemes ranged from a low of 25% to a high of 75%, with an average of 45%.

There are well documented examples from Australia and Denmark (Danmarks Nationalbank report on cost of payments in Denmark) of a domestic debit card scheme being able to operate at the lower end of the range.

Further analysis was then done to assess whether the comparison changes according to the size of the market; we tested the comparison with market sizes ranging from 100m to 2bn transactions/annum. The chart below shows that although unit transaction costs in US\$c are higher in smaller markets because of lack of scale economies (average transaction costs in a market of 100m transactions/annum are approximately 40% higher than in a 1bn transactions annum market), the relativity between a domestic scheme and an international scheme remain broadly constant.

Figure 5: Domestic card programmes cost comparison - domestic versus international schemes

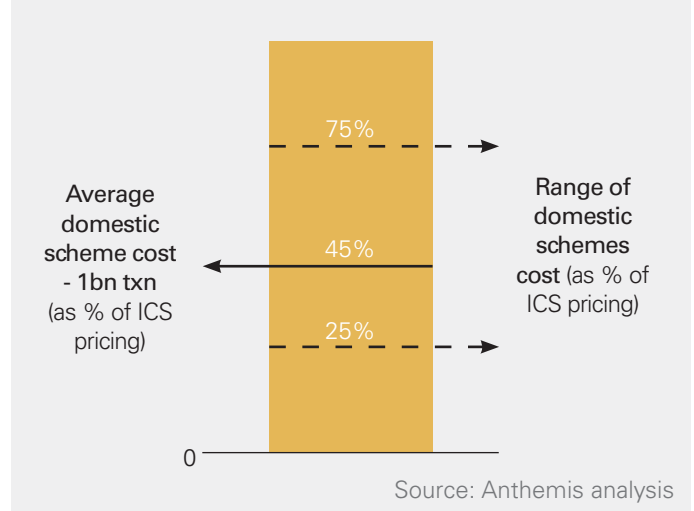
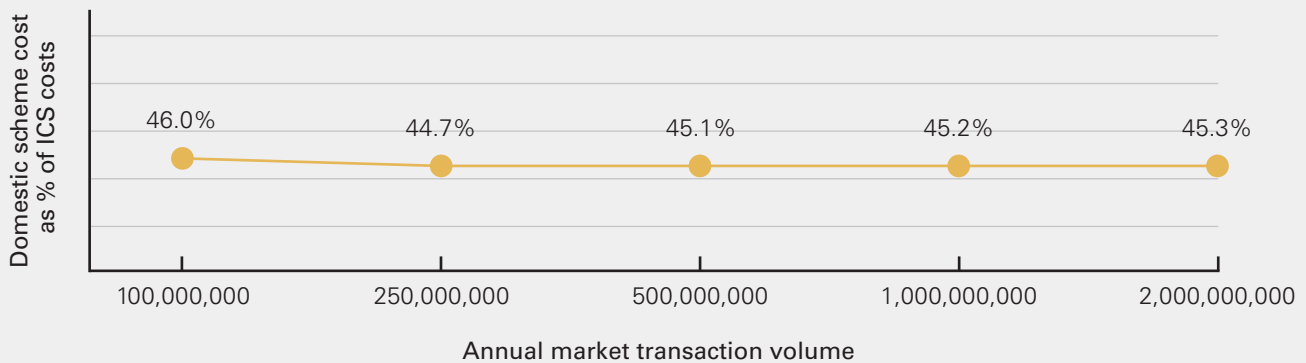


Figure 6: Domestic debit card programmes cost - sensitivity to market size



'The biggest logic for domestic schemes is that in most markets less than 10% of cardholders ever transact internationally but the international schemes charge assessments on 100% of transactions. This does not appear to be fair'

Domestic processing company CEO



The economic case for domestic schemes

The lower costs of the domestic schemes arise from a number of factors:

- » They have a cost conscious approach to budgeting/cost control and they do not get involved in the expensive advertising and sponsorship favoured by the international schemes
- » They rarely get involved in M&A activities and costly speculative innovation
- » The building blocks of a domestic scheme and infrastructure (switching systems, specifications and scheme rulebooks) are more readily available from competent providers at a reasonable cost:
 - ACI Postilion systems (Postilion and Base 24) are used by many national switching organisations and there are other providers with good capability
 - The CPA chip specification is now much more widely supported and the Discover D-PAS specification is achieving market traction in multiple territories
 - There are several consulting organisations staffed by experts with MasterCard and Visa expertise that can help with scheme set-up including rule books, interbank guarantee agreements and pricing structures
- » There are possibilities to share technology costs between domestic schemes as evidenced by the recent agreement to share wallet technology between BKM in Turkey and Redsys one of the Spanish processors

‘Domestic transaction processing should be done in-country with no cross subsidisation between assessment and processing fees’

Network/Switch

General Manager

Central banks/regulators are in favour of low-cost payments as an aid to economic efficiency and generally they hold the belief that domestic schemes and infrastructures are low cost providers; they almost all stated that there is insufficient transparency in cost information. Some of the European respondents stated that they thought the international card scheme offering could be significantly cheaper than domestic solutions (up to 6x cheaper as per the earlier quote), but none had any firm data on which this belief was based. Other European respondents felt that large markets such as France, Germany, Italy, Spain and UK have sufficient scale to provide scale economies for domestic players. In developing markets, opinion is less divided with most central banks/regulators believing that domestic

solutions can be more cost-efficient. Where national markets are sometimes small, central banks were keen to see regional cooperation develop in order to ensure economies of scale.

Although there is a central bank wish for low cost payments, in what is perhaps a surprise most were against zero profit schemes and infrastructure. Several expressed views that payment schemes and providers have to make a sufficient return to be able to make investment in new functionality such as mobile. Therefore the no-margin, low cost utility model of some domestic schemes (set by their bank owners) does not satisfy many central banks because it will hold back innovation and is therefore not sustainable.



The economic case for domestic schemes

In addition to the absolute level of fees, the rate of increase (or decrease) also has to be considered.

We made a macro-level analysis by using published data for the past 4 years from MasterCard and Visa for revenue growth (both gross and net of incentives) and compared it to transaction and payment volume growth. This broad analysis shows that few of the benefits of volume growth appear to have been shared with the members of either organisation and that Visa has been more aggressive on the pricing front with a 4% increase per annum compared to MasterCard which appears to be broadly flat.

To validate this high-level finding we obtained input from the retail banks in the survey. Although there are now reports that some of the largest banks have obtained attractive pricing, the majority of banks all complained about rising international scheme fee assessments (from both organisations) over the 4 year period. All of the ex-ICS execs stated that post-IPO there has been a deliberate strategy of increasing fees to members in order to deliver financial returns to shareholders. However they also all held the view that there is now considerable bank reaction to this in developed markets where large players are negotiating much harder deals by threatening to switch all of their business to the other scheme. Therefore the ex-ICS execs see the outlook of MasterCard and Visa fees for banks as gradually drifting down in real terms but with three major caveats:

- » **The Visa Europe fees are around 35% lower than equivalent fees from Visa Inc. for other territories and there is a high risk that these will be increased (most likely at the expense of acquirers) in the run-up to the likely reintegration with the global Visa organisation. Higher Visa fees in Europe could also potentially create room for MasterCard to raise some fees as well**
- » **Developing markets may not benefit as price compression in developed markets for large banks has to be compensated elsewhere in order to meet shareholder expectations**
- » **The greater the level of price concessions to the large banks, the worse the outlook for small and medium banks**

The central banks/regulators and the retail banks in the survey all complained about a lack of transparency in payment system costs. The ex-ICS execs cast some light on this from

an international scheme perspective and confirmed that making prices complex and opaque has been a deliberate strategy: *“few banks really understand what they are paying”*. In this respect the ex-ICS execs and the retail banks consider MasterCard to be noticeably more complex although they did not see this as a strong point for Visa. Some of the ex-ICS execs pointed to the advantages of the complex structure in being able to move charges around and make a deal for domestic debit cards appear low cost in the short and medium term. However, it is wise not to read too many Machiavellian motives into this as one of the ex-ICS execs pointed out:

“Even the people in MasterCard and Visa don't understand all their pricing”

In the developed markets, value retention within the local economy was not an issue although domestic/regional governance and control can be. However in the developing countries the central banks were keen to see value retained locally with a preference for local solutions where possible. This seems to have been one of the factors in the formation of RuPay where scheme fees and interbank processing fees for MasterCard and Visa programmes all go outside of the country.

The overall conclusion that appears from the data is that domestic schemes and infrastructures are generally significantly lower cost for a market in aggregate than international solutions and therefore are a positive tool in increasing national economic efficiency. However this finding is subject to the important caveat that we are talking about the market in aggregate. Because the card payments value chain is complex and involves transfer payments from one party to another (especially in the form of interchange), it is possible for the lowest cost solution overall not to be the most financially beneficial for every stakeholder. There will be situations where a stakeholder (especially a card issuer) prefers a solution that is sub-optimal for the whole market. This clearly leads to consideration of how stakeholders make choices, whether there is a level playing field and the appropriate regulatory regime structure to lead to optimal outcomes for the market.



A level playing field



87%

believe that central banks / regulators have a duty to promote sustainable competition

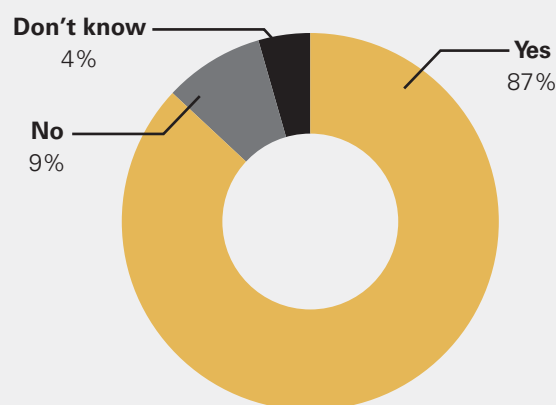
In a network business with considerable economies of scale and therefore a substantial virtuous circle for the winners, it is important to ensure that all players have a fair chance to compete for business. In the previous report, some of the domestic schemes suggested that the scales were tipped unfairly against them because the regulator tends to be tougher on them than on the international schemes.

Central banks/regulators have openly stated in most countries that they wish to see more competition at all levels of the payments market; between payment businesses models, between schemes and between payment service providers. Due to the market power of entrenched providers this creates a potential case for regulatory intervention to prevent market failure occurring.

The domestic schemes surveyed agreed that there is a clear duty and role for central banks/regulators to promote sustainable competition between payment schemes.

However most of them agreed that it is not the role of the central bank /regulator to preserve the business case of a failing business. In response to the question of what single action a central bank/regulator should take to ensure a level playing field a number of suggestions were made (each with multiple mentions) by the domestic schemes and infrastructure providers.

Figure 7: Do central banks / regulators have a duty to promote sustainable competition?



Note: % of scheme survey respondents

- » Exclusivity deals should be banned, including single scheme 'lock-out deals' by issuers. There was support for Durbin style regulations to require major banks to participate in more than one scheme/network
- » Incentive payments by card schemes to banks to 'buy' issuance should not be allowed
- » A common AID (application identifier) for debit and credit cards not controlled by one scheme



A level playing field

The central banks/regulators were all very clear that their role is to be scheme neutral, as economic efficiency is their primary goal. In the developed markets, central banks/regulators see payments largely as frictional cost for the economy and therefore reducing them increases economic output. In developing markets it is an even more vital issue because efficient payments are a key enabler for financial inclusion. So if the central banks/regulators have a goal of scheme neutrality, what issues do they see in achieving their objective?

They all said that they had started with the intention of a light-touch regulatory regime. A number expressed the view that if they started to take a more active approach, then it could be difficult to withdraw back to the preferred lighter-touch approach in future. In the developing markets the establishment of industry interoperability is often the top priority whereas interchange, that absorbs so much regulatory attention in developed markets, is a much lower focus because POS usage is still in early days. What pushes regulators to become more active is when anti-competitive behaviour holds back the drive towards economic efficiency especially because competition between schemes no longer happens.

Most of the central banks/regulators took the view that up-front incentive payments by card schemes to drive market share to them and away from competitors are a significant issue and a distortion of the market. The views of central banks showed some variation but the overall sentiment was consistent as shown by the following quotes:

“We are not sure it is occurring but if it is we will stamp it out”

“Upfront payments and kick-backs are not necessary. They destroy transparency and violate fair competition”

However there was no agreement on how this should be controlled; there was a feeling that competition law might be the best tool but some of the markets surveyed do not yet have effective competition law frameworks.

The ex-ICS execs also agreed that the practice is bad for the industry even though most of them had used issuer incentives to drive market share gains. They argued that you have to differentiate between ongoing discounts (which they see as fair commercial practice) and up-front payments which probably are not. An obvious example of ‘unfair’ up-front payments is the

provision of free cards to a bank in return for moving volume from a rival scheme.

“Lots of deals have upfront components which can be attractive at the time as they can be used for marketing, to make up revenue shortfall etc. Once the bank takes the bait there is no way out. In the end, it ends up more expensive than staying with the domestic scheme”

Ex-ICS exec

The retail banks that were surveyed each expressed the view that their own organisation saw through short-term incentives and instead concentrated on long-term programme costs. However they also said that some other banks would not be as smart and could be swayed by such deals. Where banks had committed to such deals they were unanimous that any claw-back provisions would not be enforced by the international scheme and that timeframes would merely be extended. If this claim is true, then regulatory authorities could well have increased interest.

The consensus view of the central banks/regulators was that the MasterCard and Visa international schemes are generally more difficult to deal with than their domestic counterparts. There is a view (whether fairly held or not) that the international schemes are often not transparent in their dealings with regulators whereas domestic schemes feel more compelled to be open. The point was made that the international schemes are prepared to take legal challenges to the courts (this has happened in at least two jurisdictions) whereas the domestic schemes are more likely to reach a compromise solution.

In terms of whether the international schemes get favourable treatment from central bank/regulators, the ex-ICS execs had a split view:

- » In developed markets (and particularly Europe) the regulators seem to have run out of patience with the international schemes and there is no evidence of any favourable treatment
- » In some developing markets there is perhaps still some deference to international market leaders

Rather than consider a developing/developed market split, it is more instructive to look at the varying willingness of regulators



A level playing field

to intervene in quite complex area such as transaction routing rules. European regulators are very active in this area based on the premise that choice of transaction routing, which can be controlled by a parameter on a chip, cannot be unregulated because it can lead to major competitive distortions resulting in merchants paying more for payments. In Australia, the Reserve Bank Payment Systems Board expressed concern about the restriction of competition arising from contactless transactions:

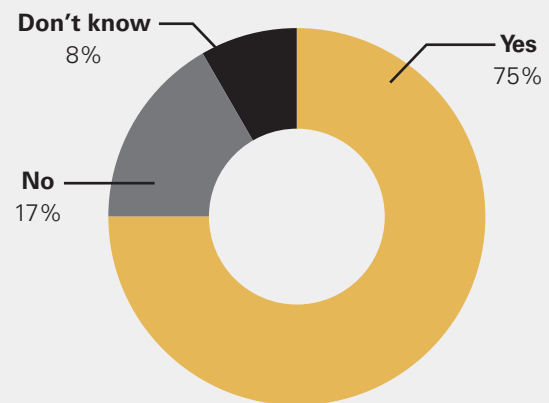
“further issues have arisen between the various networks in the context of contactless debit cards...these developments have the potential to inhibit competition, limit choice to consumers and increase costs.”

The Australian industry has now reached an agreement that the merchant can choose the routing priorities when there are two contactless debit applications on one card and not be bound by issuer preference or card scheme rules.

Other central banks/regulators take the view that it is not their remit to intervene in detailed card scheme rules; this is sometimes a philosophical view and other times a practical consideration given their available resources and skills.

The domestic schemes claim that they provide a lower cost model for domestic card payments than the international schemes is confirmed by the economic analysis. The lower cost often manifests both in lower scheme fees and lower interchange. The result has tended to be that the domestic scheme may give less interchange to issuers but with a trade-off of greater merchant acceptance. However there are cases where the central bank/regulator has taken action to impose the same interchange on all schemes, domestic and international and/or required merchants to accept all card schemes. The unfortunate side effect of this is that the competitive advantage of the domestic scheme is eroded and therefore their proposition to banks is weakened. The survey showed that the domestic schemes want their cost advantages to be realised at merchant level and not to have the playing field levelled against them by the regulator.

Figure 8: Should merchants benefit from lower scheme costs?



Note: % of scheme survey respondents

The importance of the interchange structure and rates in determining whether the playing field is level between payment schemes cannot be underestimated. There are conflicting views from experts on the economic justification for interchange and the level which is appropriate but two views expressed by the survey participants showed clearly why it is on the agenda of central banks/regulators globally:

- » The ex-ICS execs all stated that interchange is a key weapon to drive issuer decisions (along with incentives) so there is a competitive need to keep it high. The impact on the acquirer and merchant was said to be always subordinate to the desire to give the maximum reward to issuers
- » Central banks/regulators stated that whilst competition between schemes should lead to lower interchange, it perversely leads to higher interchange as the USA market shows. Every central bank/regulator commented to this effect and the practice of introducing premium debit products to avoid interchange caps (as happens in markets such as Australia) was seen as a justification for further regulatory intervention



The role for central banks in running the payments business

When asked about the role that a central bank should play in payment schemes, the domestic scheme respondents felt that their principal role should be to ensure interoperability and there was also considerable support for interbank settlement being undertaken by the central bank.

There was a strong feeling that central banks should keep away from commercial activities such as running schemes, providing switching and clearing services and merchant settlement. However, in developing markets, if the industry does not develop robust solutions and there are no capable private sector providers then it may be necessary for the central bank to step in for a time to ensure an efficient industry structure. But the respondents felt that this should not be on a permanent basis.

The view of the central banks was highly aligned with that of the schemes as shown by the following comments:

“Central banks have the obligation to ensure a secure and efficient payments industry”

“Our mandate is competition, efficiency and controlling risk, which seem to us to be very defensible roles”

“The central bank should set the policy towards cash replacement which is all about maximising efficiency of the economy. And they should run RTGS and the ACH as an operator”

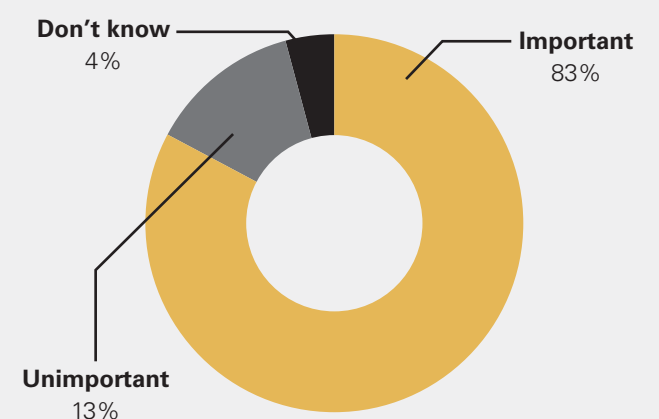
There is however a minority view that in developing markets it may be necessary for the central bank to play a more active role if there are no competent private sector operators or if there is a market failure such as interoperability not developing.

“We are prepared to be a catalyst in the ATM and cards area but then withdraw as the market develops”

Developing country central bank executive

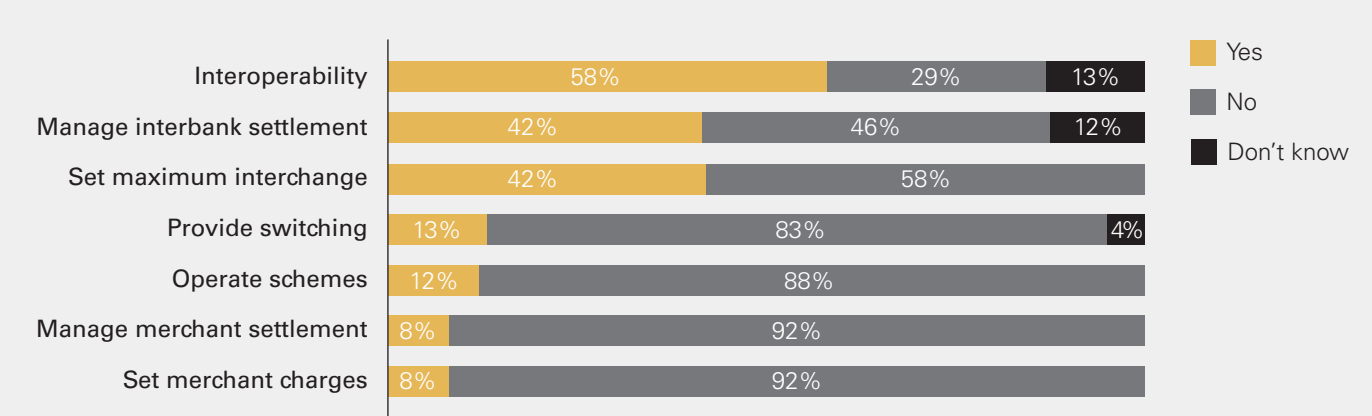
Most of the central banks argued strongly against this view because of the risk that once established the company will

Figure 10: Importance of mobile money interoperability between different providers



Note: % of scheme survey respondents

Figure 9: Central bank's role in card payments?



Note: % of scheme survey respondents



The role for central banks in running the payments business

inevitably want to expand its range of activities and thus compete with the private sector. They also argued that the independence of the central bank is seriously undermined if they have a role in such an organisation. The retail banks were also united in not wanting the central banks to become an operator of card systems with the sole exception of interbank settlement.

The question of mobile money interoperability is on the agenda of central banks in many countries, especially in the developing markets. Mobile money is seen as key enabler for financial inclusion and there is a desire by most stakeholders for interoperability between rival operators. A 'walled garden' approach may be in the financial interest of a particular provider but overall economic interests are maximised with interoperability.

The payment schemes felt that the central banks /regulators should take action to enforce technical interoperability but that it is not their role to impose the commercial terms on which this happens.

The central banks/regulators agreed that they have a role to enforce technical interoperability but whilst they would prefer not to be involved in setting the commercial terms, they say it may be necessary if the leading mobile money operators cannot agree.

Whilst there was no consensus on exactly how best to achieve interoperability, the preferred approach was to utilise and adapt exiting arrangements so that mobile money becomes integrated into the retail payments eco-system and not part of a parallel universe.

Figure 12: Should mobile money use existing interoperability mechanisms

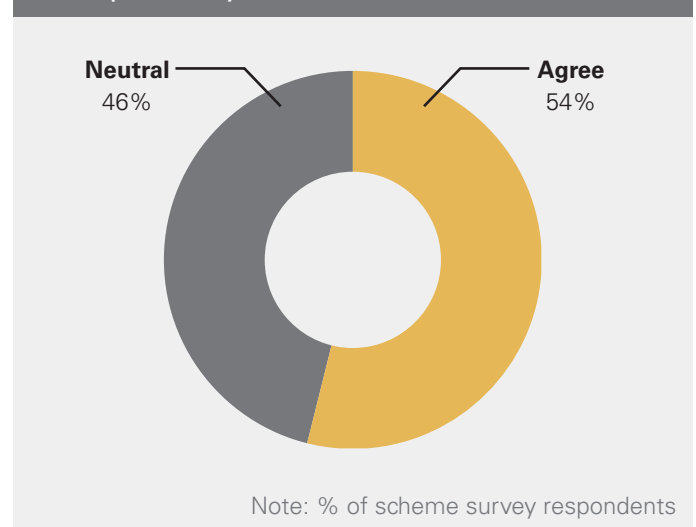
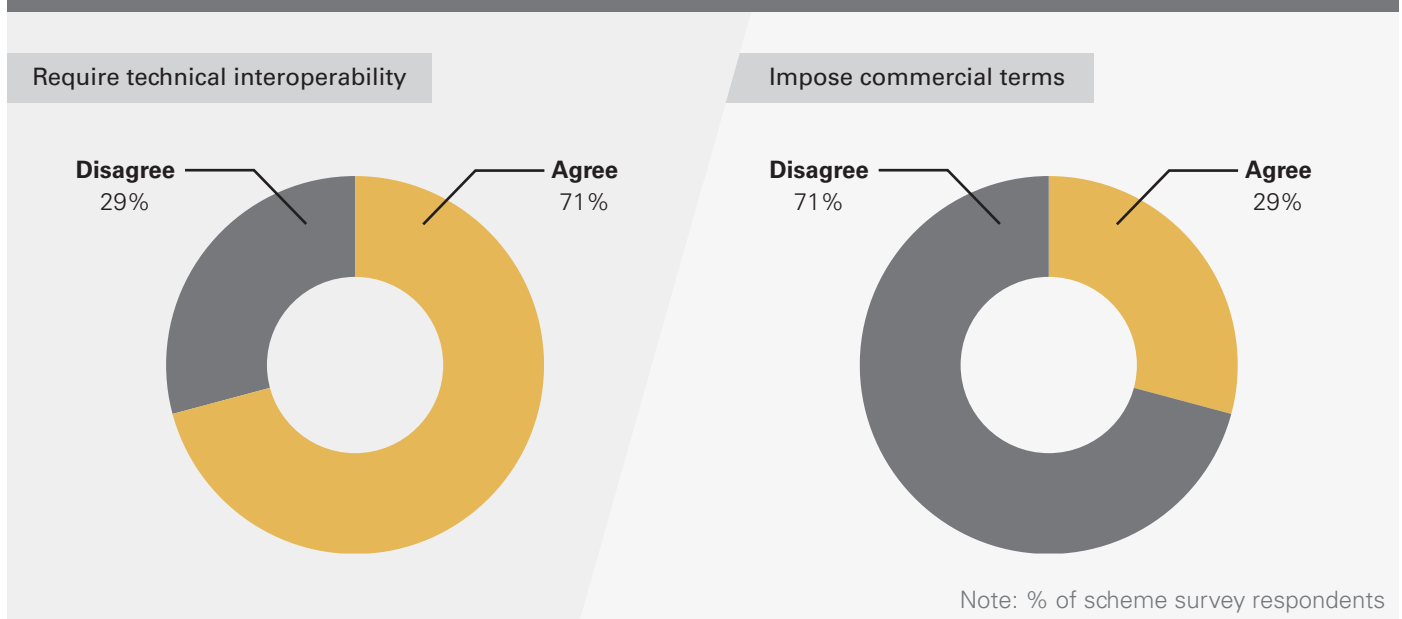


Figure 11: Central bank role on mobile interoperability



Participation, governance and control

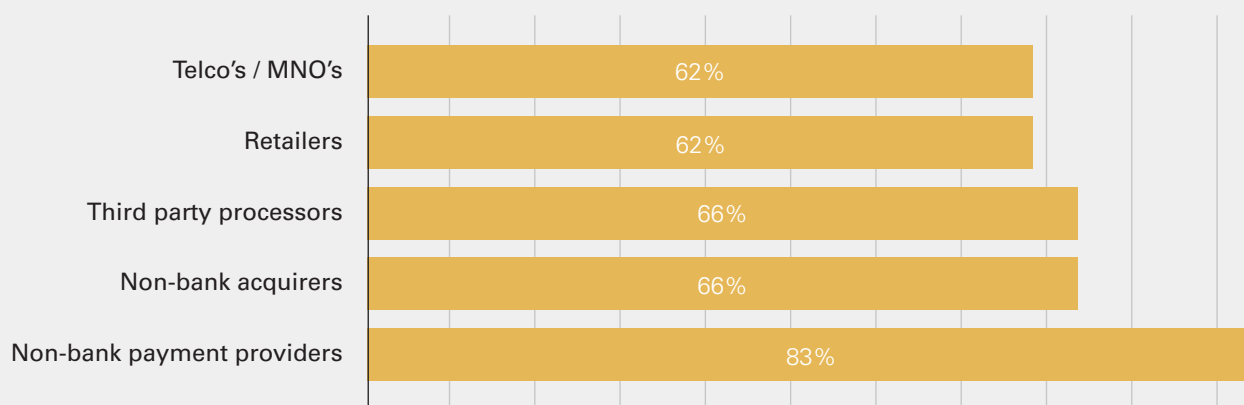


‘Having a strong domestic scheme as part of our offering reduces our risk of complete dependence on international card schemes, that are without any local control’

Retail business payments head

The previous 2012 report showed domestic schemes were quite reluctant to broaden their membership and governance structures beyond their traditional retail bank base thereby risking that they would be seen as a ‘bankers’ club’ and not welcoming new market entrants. However their views seems to have changed substantially with there now being a majority in favour of a range of non-bank organisations, with even MNO’s/Telco’s, being allowed to participate.

Figure 13: What new entities should be able to join schemes?



Note: % of scheme survey respondents



Participation, governance and control

Central banks/regulators were also in favour of wider membership of payment schemes but with some restrictions. In Europe there is clearly a belief of the regulators that restricting access of new market entrants to payment schemes and systems is anti-competitive and there are comprehensive EU proposals to make access easier. Although this is within a framework in which non-bank providers are regulated, not as full banks but as payment institutions or e-money issuers. Despite that some central banks would prefer a more restrictive approach:

“Payments business is closely linked to monetary stability. In general payments business should be limited to banks”

Elsewhere in the world, central banks/regulators are quite cautious; they are watching what happens in Europe and are making small movements. But there is a sense that faced with the reality that non-banks are already a major force in mobile money, in merchant acquiring and in ATM operations in many markets, it is inevitable that the payments industry will have to admit more participants to their structures. Regulators are therefore looking at how to best achieve and regulate this.

“There needs to be confidence that vetting of the capabilities and standing of participants – appropriate to the risk generated – is being undertaken”

There has always been a potential risk to a country of using the interbank processing systems of the international schemes for domestic transactions; ‘politicisation of payments’ is cited as a major risk by international networks such as SWIFT with a national government seeking to impose its political agenda onto payment schemes and their participants.

Freedom from potential foreign political intervention in the domestic money transmission system was clearly one of the factors behind the creation of RuPay in India. And a number of other countries have required interbank transaction processing to be carried out in country; this is particularly on the agenda as cards are now predominantly debit which are much more important for domestic money transmission than credit cards that are increasingly a niche product.



Several of the central banks contributing to the research expressed concern about the recent events of MasterCard and Visa closing down the programmes of some Russian banks as a by-product of the Ukraine sanctions situation.

“The Russian case points out a danger of using Visa or MasterCard as a partner for critical national programmes such as identity schemes”

“We are committed to processing our transactions in-country even if it costs us more in the short-term”

Almost certainly, MasterCard and Visa had no wish to close the Russian programmes and if a Russian equivalent of UnionPay is developed, it is obviously against their interests. However they obviously had no choice in the matter as US-based organisations.

The ex-ICS execs all confirmed that this is a major issue for both organisations.

“The recent Russian incident shows vulnerability in the Visa/MasterCard model and it is not surprising that the risks from this will push some markets towards domestic or regional solutions”

“The US sanctions regime for Libya, Sudan and now Russia makes the scheme processing proposal much more problematic, particularly as card takes a growing share of financial transactions”



Participation, governance and control

Guarding against political interference was one of the reasons that the majority of ex-ICS execs gave for their advice to developing markets to create their own domestic infrastructure.

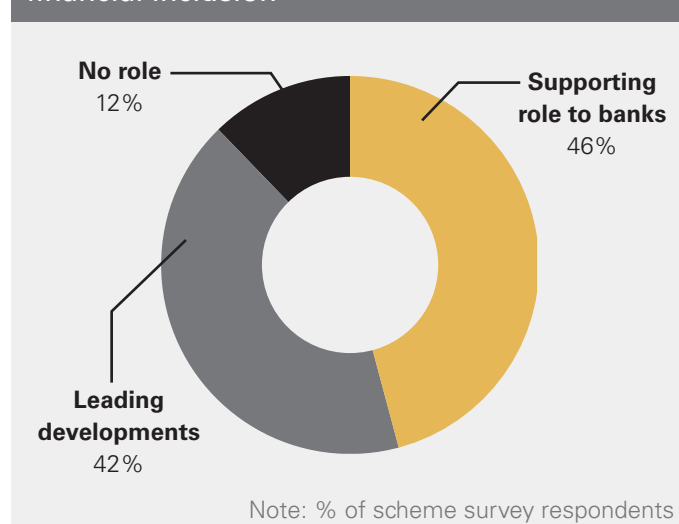
Both MasterCard and Visa CEO's have now publicly stated their concern to the stock market about the situation in Russia and the possibility that it could lead to further consideration of domestic schemes in more markets. Visa Inc. said that the size of the deposit being requested by the Russian authorities appears to be several times the revenue they generate from the market.

A market that uses card products from the international schemes but runs its own processing systems has a revenue potential to MasterCard and Visa of approximately 50% compared to a market that uses the international interbank processing systems. This clearly underlines why both organisations make very determined efforts (usually involving incentives) in large markets, such as they appear to have done recently in South Africa, to persuade individual banks to break away from national interbank systems. Such moves put the central bank/regulator in a difficult position because the decision of one bank to maximise its own benefit can harm the economics of the payment system for the overall industry. They have to decide whether to actually mandate the use of the national system which they may be reluctant to do or to accept that costs for many players will rise which is counter to their goal of overall economic efficiency. This is an uncomfortable position for the central bank/regulator to be in but they cannot duck the question.

This also gives rise to scheme governance issues. If the domestic scheme or infrastructure is completely owned and governed by the banks, which is the case in most countries, there is a significant risk of conflict of interest. Individual banks can take a decision to migrate away from domestic scheme products to international products because interchange is higher and this can outweigh higher scheme fees. But that bank through the governance structure can prevent the domestic scheme from making a competitive reaction to retain the business. The regulator that has identified this issue is the EU which is using hard interchange caps to take away interchange as a motivation for issuers to switch card products. This is not the only measure that the EU believes necessary to achieve a level playing field; they and the Nigerians have already moved to separate the governance of payment schemes from interbank processing and this may now be considered by more countries.

The fundamental question is whether the fully bank owned model for domestic schemes can survive now that they have to compete commercially with the international schemes. In the Danish and Nigerian markets the domestic scheme and switch now has substantial private equity participation. This model may not be appropriate for many markets but the question of ownership and governance must be addressed if domestic schemes are to effectively compete with the new business model of the international schemes.

Figure 14: Domestic schemes role in enabling financial inclusion



As low cost operators, domestic schemes have the potential to play an active role in facilitating financial inclusion in developing markets. 90% of the domestic schemes felt that they have a role to play active in this space but they were divided on whether they should lead or merely support the activities of the banks. In contrast the international schemes seem more prepared to play a leading role.

The not-for-profit MasterCard Foundation has a clearly defined remit to promote financial inclusion and is working energetically in many countries in conjunction with other organisations towards this goal.



Stakeholder frameworks



In order to help some of the key stakeholders analyse the issues in a consistent way, we developed high-level frameworks that may add value to central banks and also domestic scheme decision makers as they consider how to find the right balance between domestic and international solutions. The frameworks are based directly on the input received during the research project.

Central banks

A number of parties stated that it is difficult for a central bank or national payments company to evaluate whether or not to set-up a domestic card payments scheme. The organisations that had been through the process all said that they had to start from the beginning and that they would have appreciated a framework to work through. One central bank representative said “the solution will always be different in each country but the questions we ask should usually be the same.”

We have compiled the following key topics based on the experiences of the organisations we talked to in multiple markets.

- » Determine overall policy objectives for payment schemes and infrastructure
- » Decide whether to require interbank processing and data retention in country and whether to have one central infrastructure provider or let industry providers compete
- » Build comparative business case of international scheme only approach versus international and domestic scheme approach
- » Decide whether interbank settlement guarantees will be specific to the scheme or will utilise existing guarantee frameworks
- » Decide whether to follow totally national approach or whether regional cooperation opportunities exist
- » Decide whether domestic scheme should be a profit centre, break-even or a cost centre and how start-up costs (up to breakeven) will be funded
- » Decide whether to mandate bank participation in a domestic scheme or whether to allow competing schemes and if multiple schemes exist, decide how to regulate anti-competitive behaviour
- » Key decisions within a planned domestic scheme:
 - All card products or just debit
 - Chip standards including contactless
 - e-commerce capability
 - International strategy and choice of partner
 - How interchange will be set and by which body
 - How scheme will be managed; separate from management of payments infrastructure or combined
- » Decide which organisations have the expertise to assist with the development of a scheme and infrastructure



Stakeholder frameworks

Domestic scheme decision makers

The research project shows that domestic schemes have the potential to take a major and potentially larger portion of global retail payments volume. However this opportunity is not going to be easily exploited and if domestic schemes do not face up to the current challenges and issues, the risk is marginalisation despite the potential opportunity. The following strategic pointers were developed from the interaction with individual schemes and infrastructure providers.

- » Continued low cost operation is important but zero margin leaves no funding for innovation. Scheme owners have to allow prices to increase slightly to build development funds, or establish a mechanism for funding major developments, or allow investment from external parties
- » Creation of modest profitability to fund innovation would not endanger the cost advantage they currently have
- » Domestic schemes must maintain close relationships with regulators and make sure their business model and competitive issues are understood. Although it is counter-cultural, at times more regulation in the area of level playing field might be beneficial
- » Specifically domestic schemes should work with regulators to ensure that their lower cost business model is reflected at the merchant level in terms of charges and acceptance levels
- » Domestic card schemes should build close relationships with other domestic retail payment systems to permit hybrid capabilities to be developed
- » Scheme pricing should continue to be simpler and clearer than the international schemes but market reality should also be recognised in that if the market practice is for volume discounts and a mix of fixed and variable charges, it is dangerous to offer a totally variable tariff with all banks paying the same
- » International strategy is important and discussions should be held with all potential partners. 100% reliance on a single partner is likely to be risky
- » In small markets, regional cooperation possibilities should be examined at the scheme and infrastructure levels
- » Control over chip applications including contactless is important to maintain freedom for future action
- » A viable e-commerce solution is important as a debit card without e-commerce support will be an increasingly unattractive offering in the market
- » Domestic schemes should retain their close relationship with banks but they should be open to the participation of suitably regulated new market entrants and also to dialogue with other payments stakeholders

'...domestic schemes have to up their game; they have to recognise that they are now in a much more competitive market and act more commercially'



Apis Partners



Matteo Stefanel, Managing Partner, Apis Partners

Matteo comes with a successful track record of 17 years in private equity and investment banking, with specific focus on growth markets and financial institutions.

Formerly, Matteo was a senior partner at The Abraaj Group, where he co-headed Abraaj's PE/Buyouts funds (\$5bn), heading both the Real Estate and the Special Situations Group, whilst also being a member of the Executive and Investment Committees. He was responsible for more than 15 Abraaj's investee companies over the years, including Saham Finance, Network International and Jordan Ahli Bank.

Matteo has been a board director of over 20 companies and completed more than 100 transactions in Europe (including CEE), South Asia, the Middle East and Africa throughout his career at Abraaj and at MIG (\$7.4bn AUM) where he was briefly CIO, and at Deutsche Bank as MD and co-Head of the Financial Institutions Group – Emerging Markets.

For the past two years, Matteo has been a member of the World Economic Forum's Global Agenda Council on Financing and Capital.

Originally from Italy, Matteo has an MA (Hons) from Queens College, Oxford, UK.



Udayan Goyal, Managing Partner, Apis Partners

Udayan brings exceptional domain expertise and a global network of industry professionals, having formerly been MD and Global Head of Financial Technology at Deutsche Bank and prior to that, part of the European specialty finance practice at Credit Suisse.

He has been the lead advisor on a number of important financial technology and payments transactions including advising KKR on the USD28bn take private of First Data, Visa IPO, acquisition of ISE by Deutsche Borse and International Index Corp on its acquisition by Markit Group.

He also advised on a number of flagship transactions in the industry, most notably Advent and Bain's £2bn acquisition of WorldPay and Abraaj's AED2bn acquisition of Network International.

More recently, Udayan founded FT Advisors, a financial technology corporate advisory firm and Anthemis Group, a leading global digital financial services investment and advisory firm. Whilst at Anthemis, Udayan has invested in more than 20 companies in the global financial technology space, many of which are in growth markets.

Originally from India, Udayan has an MA (Cantab) from Trinity College, Cambridge, UK.





Apis Partners is a PE fund manager focused on Financial Institutions and related Business Services (FS) in growth markets. It is managed by a tried-and-tested team, who have worked together for over 15 years with extensive expertise in FS growth markets and garnered in the leading firms in both private equity and investment banking. From the outset, Apis Partners can count on extensive industry-specialized human capital, resources and an attractive pipeline of investments. In addition to the core team, the operating partner network consists of 20+ financial services professionals, on-the-ground presence in 5 countries and an extended network of 27 partner companies. Apis Partners is the manager of the Apis Growth Fund.

The fund invests in “capital-light” FS companies within growth markets, namely those that are well positioned to benefit directly from favourable demographic and economic trends (2010-2025 growth market consumer spending CAGR of 7% vs. 2% in developed markets), strong structural supply/demand gaps (2.2bn of 2.5bn global unbanked adults live in growth markets) and high financial services growth (2006-10 growth

markets banking assets CAGR of 20% vs. 6% in developed ones), rather than leveraged bets on credit portfolios.

In other words, the Fund’s investment pipeline includes companies in payments (processors, remittance businesses, and eCommerce and mCommerce enablers), retail banking and consumer finance (inc. micro-lenders), insurance (inc. claims managers), capital markets and other technology-enabled financial institutions. The Fund’s focus is on Africa and Asia, geographies where the team has successfully completed investments over the past decade and where the opportunity to provide capital (financial and human) with favourable high margins in a high growth environment. Africa and Asia showcase similar financial services innovation patterns as these regions continue to transform to meet growth market FS needs.

Apis Partners is an affiliate of Anthemis Group. Anthemis Group is the leading digital financial services investment and advisory firm focused on re-inventing financial services for the 21st century.