BCG FINANCIAL INSTITUTIONS | TRANSACTION BANKING

White Paper

International payments: accelerating banks' transformation

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International payments continue to grow, yet technological advances pose a serious challenge to the incumbents, mainly banks, whose business models were developed at a time when communications were costly, slow and unreliable. Now, customers demand a new digital standard of service, and innovative competitors are emerging to supply it. At the same time, regulatory activism is driving up the complexity and compliance costs of delivering international payments.

These forces are driving the industry towards a profound transformation, one based on the use of advanced technology to integrate payments with clients' business processes, develop new offerings and reduce the burden of compliance. The large investments required mean that, as in many other parts of the financial industry, the advantages of scale are increasing.

The impact on banks' international payments transaction business will thus be profound. Global transaction banking giants will find themselves in a strong position as long as they invest and reinvent themselves. Small domestic banks will continue to refocus on local relationship banking, outsourcing the activities in which they are subscale, such as international payments. Mid-sized banks will face the most difficult strategic choices. We think they have four, which we outline after we have explained the forces driving the industry towards transformation.

1. New challenges arise as secular trends persist

The emerging world is increasingly leading the transition away from cash

Card payments surpassed cash payments for the first time in 2016, reaching $23 trillion globally.[1] Among developed economies, Nordics lead the race to become cashless societies. In Sweden, for example, cash is now used in only 2% of transactions (by value).[2] In emerging economies, governments seeking to improve transparency and control are discouraging cash payments, most dramatically in India, where large denomination bank notes have been withdrawn. And they are increasing access to digitized payments. In Ethiopia, for example, social welfare payments are now distributed through M-banking. Increased access to digital payments is instrumental in the accelerated development of new entrants, driving increased fragmentation in retail payment and resulting in loss of ubiquity and price pressure. (see section 2)
On the upside, once people and companies are digital, they are more likely to access international payments: the transition away from cash thus creates underlying opportunities for cross border flows to develop yet further.

Globalization of trade and financial flows are expanding the international payments pie

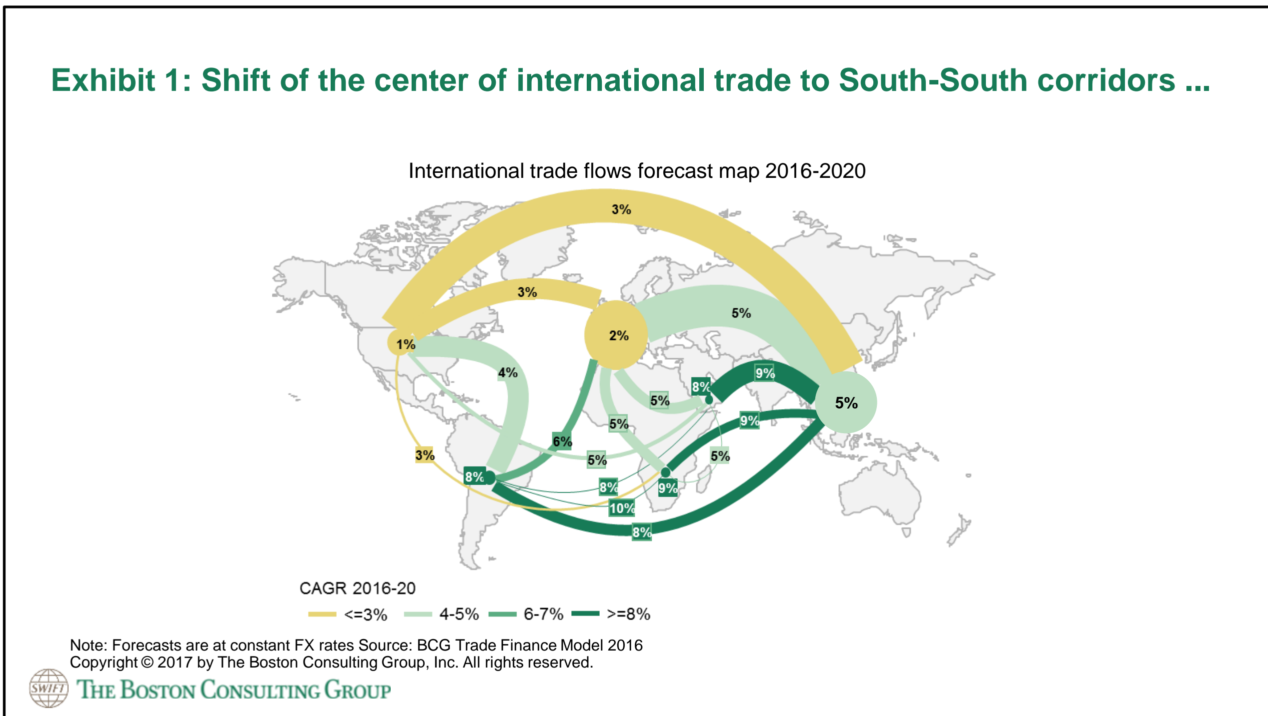
Global trade is expected to keep growing at 4.3% CAGR to 2020, reaching $18.7 trillion.[3] As a result, trade finance services are expected to grow from $36 trillion in 2016 to $44 trillion in 2020, a 4.7% CAGR.[4] Traditional corridors will keep growing at a steady rate of 2-3% a year. However, global trade is shifting towards Asia, driven by emerging intra-regional corridors. (Exhibit 1).

[1] Euromonitor, September 22nd 2016, Consumer Card Transactions overtake cash payments for the first time in 2016"

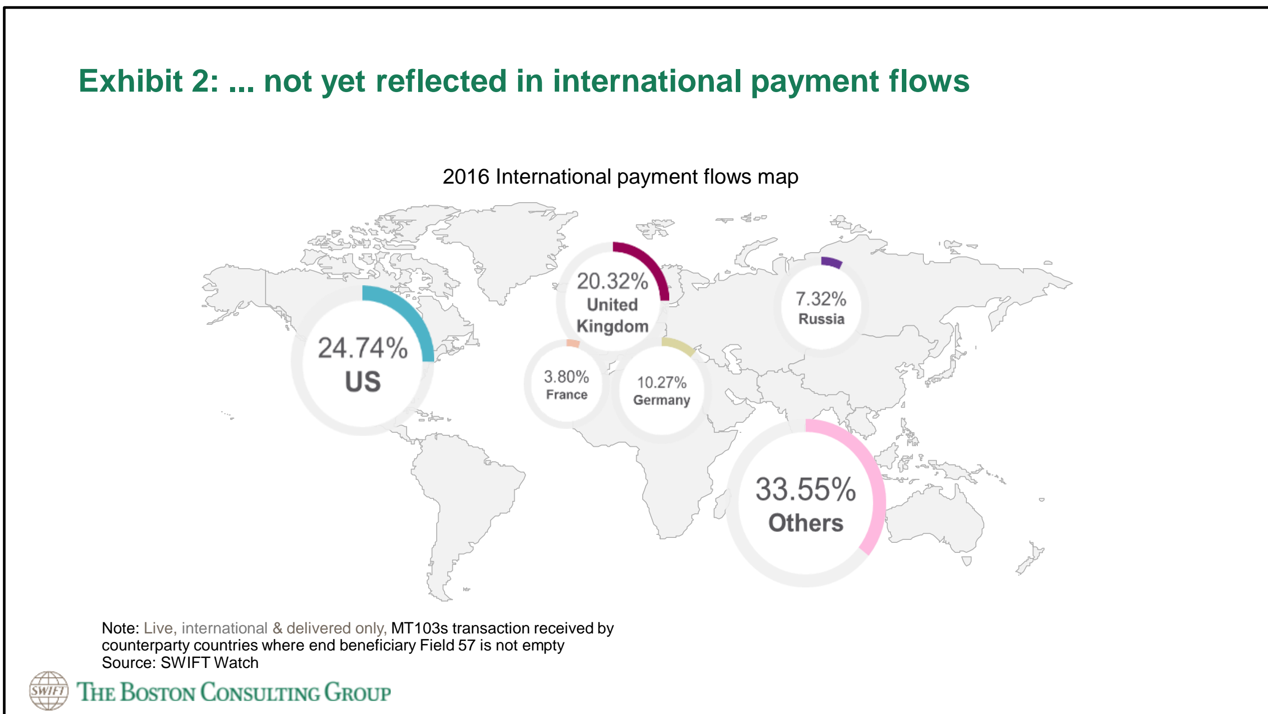
[2] Sveriges Riksbank, The Swedish payment market in transformation 2015

[3] BCG Global Trade Model

[4] BCG Trade Finance Model



This shift is not yet visible in payment flows because much of this trade is executed in US dollars and, thus, cleared in the US. (Exhibit 2).



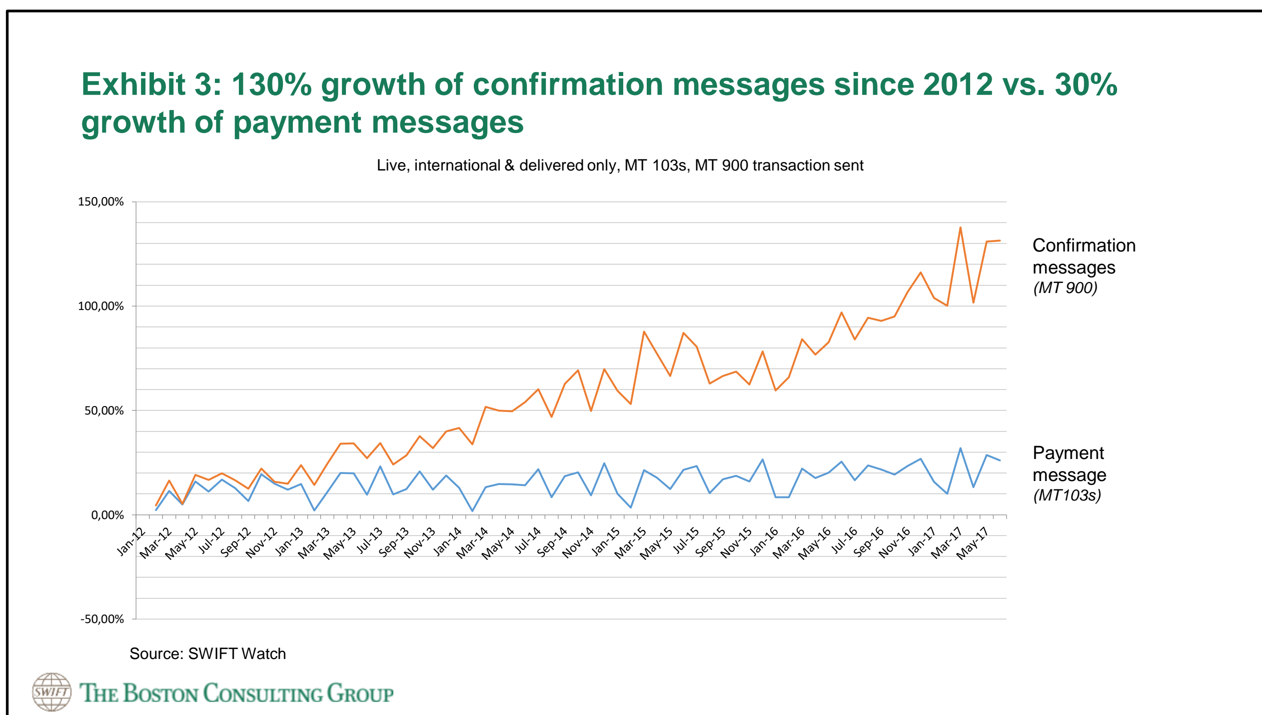
International payments are also increasing with the volume of financial transactions, such as derivative transactions, which now amount to as much as 10 times global GDP.[5] This is partly driven by the sustained dynamism of FX trading, which is expected to grow by 6% a year until 2020[6].

These strong international payment flows deliver substantial revenues for the companies, mainly banks, which facilitate them. In 2016, cross-border payments, FX transactions and trade services delivered revenues of $145B. Continued growth in international payments mean that this revenue is expected to grow at a rate 6% per annum until 2022.[7] Nevertheless, players in the international payments markets face a number of structural challenges to their continued profitability.

Digitalization defines new expectations, shaping the demand towards simplicity, transparency and instantaneity

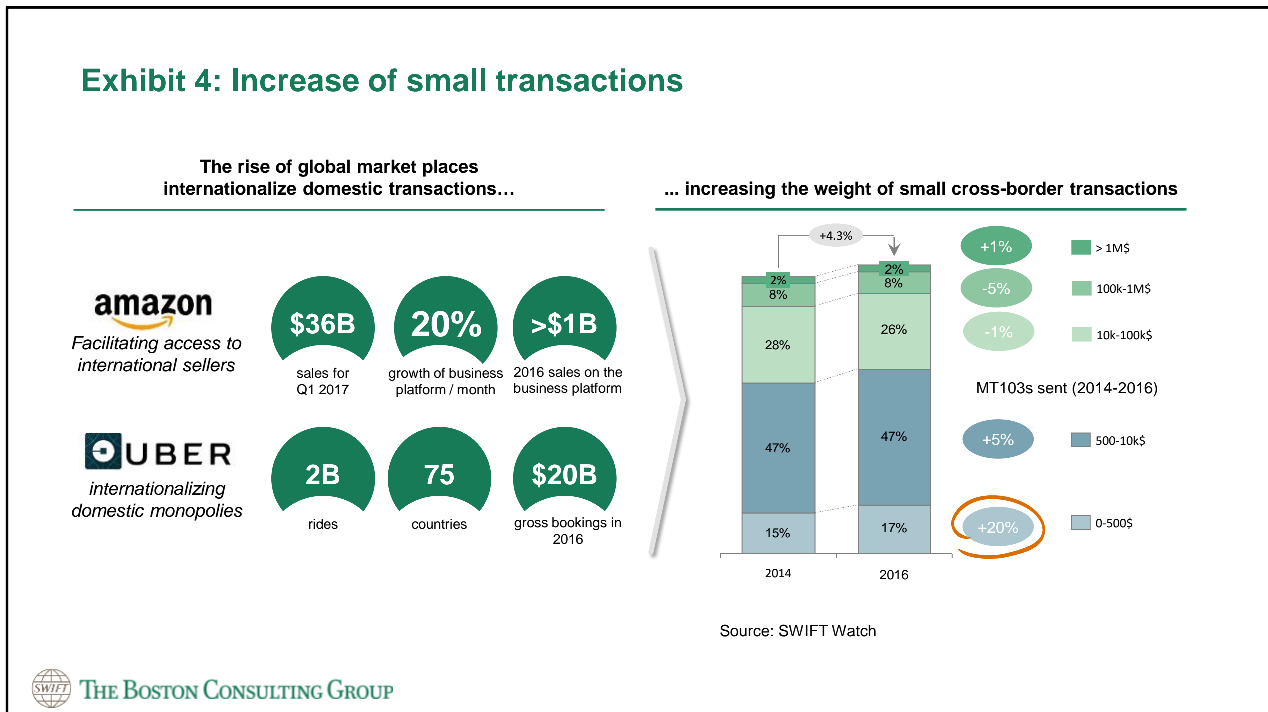
Digitalization of interfaces has raised expectations regarding the transparency, speed and cost of transactions. In a world where Amazon Prime offers real-time tracking and free delivery of physical goods within six hours, customers struggle to accept opaque bank transfers that could take 24 to 48 hours. Corporate treasurers expect service standards they are familiar with in the on-demand economy. Poor delivery and uncompetitive prices are, respectively, the #1 and #2 causes for corporate treasurers switching banks.[8]

Corporate treasurers increasingly seek simple, efficient and reliable products that give them control over their payments.[9] Since 2012, the share of corporate treasurers using export letters of credit has increased by 13 pp [10] while more complex Bank Payment Obligation (BPO) like products fails to gain traction. Similarly, the need of banks for increased transparency on liquidity with their counterparties has driven the adoption of MT 900 Debit confirmation messages on accounts held globally resulting in a 130% growth since January 2012. Gaining visibility of liquidity across their accounts using this method is also one of the key drivers for corporate treasurers with international business to connect to SWIFT (Exhibit 3).[11]



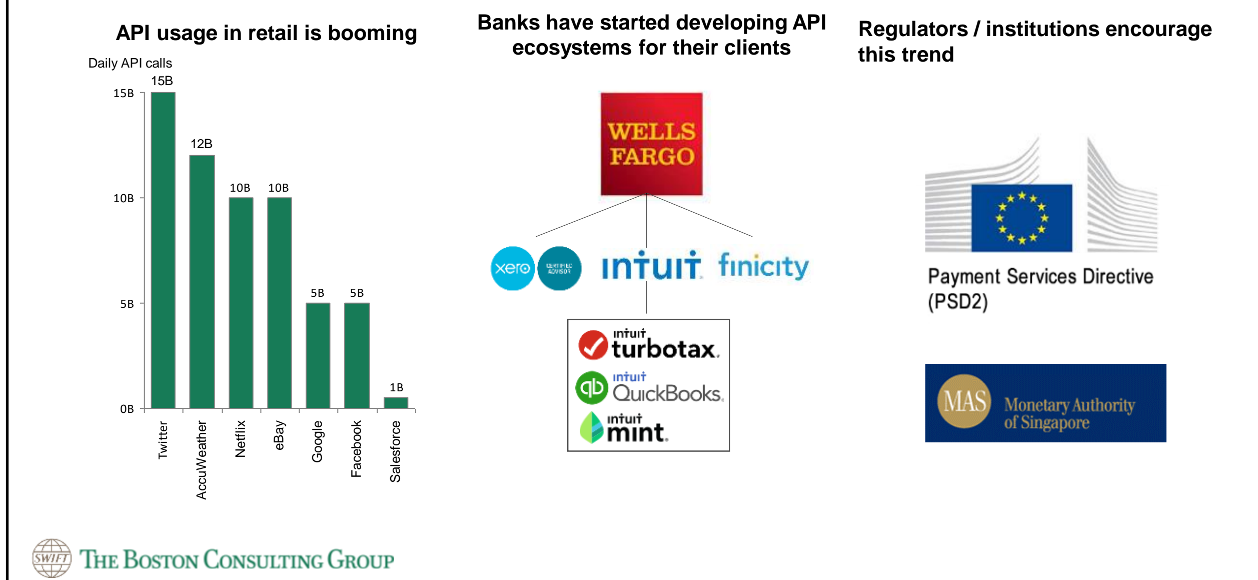
[5] BCG research, World bank
[6] BCG Trade Finance Model 2016
[7] BCG Global Payment Model data for 2016
[8] BNPP BCG Corporate Treasury Insights 2016
[9] BNPP BCG Corporate Treasury Insights 2016
[10] BNPP BCG Corporate Treasury Insights 2016
[11] SWIFT data

Rising global market places blur the frontier between payment and purchase processes
Online marketplaces and e-commerce platforms, such as Uber, Amazon and Alibaba, are weaving payment – domestic and international alike - into a seamless purchase process, making the payment step invisible to the customer. And because several of them have global business models, they are turning historically domestic flows, such as taxi or take-away food purchases, into international transactions. Even on SWIFT, typically more used for higher value corporate payments, cross-border payments under $500 have grown by 20% since 2014. (Exhibit 4).[12] This trend of shrinking average payment size will continue, similarly to what the industry has seen in securities markets with the improvement in technology and the reduced friction in processing small transactions.
These developments in international payments are taking place against a backdrop of broader developments in technology and banking.



API-sation of business models creates a world of open ecosystem
The collapsing cost of data storage, processing and communication is giving rise to new business models based on enriched data flows. Traditional monolithic business infrastructures are giving way to collaborative ecosystems built on distributed and modular alternatives that take advantage of APIs. The revenues of companies such as Salesforce, Ebay and Expedia are now, respectively, 50%, 60% and 90% API-generated. This trend will be reinforced in banking and payments by new regulations, such as PSD2 in Europe, which are effectively pushing the market towards open-banking, with platforms on which customers can effortlessly access products from a multiplicity of suppliers.

[12] SWIFT Data 2014-2016 MT103 messages



Increasing regulator activism induce rising compliance cost

While technology is changing the way customers buy financial products, regulatory activism is increasing the complexity and cost of supplying them. Regulators and supervisors are becoming more rigorous in their design and enforcement of AML provisions, economic sanctions and tax evasion laws. This increased "regulatory risk" is especially acute for banks operating in the United States (US), which accounts for 95% of all fines in excess of $100M for KYC breaches.[13] Beyond AML, sanctions and TAX, banks have paid $321B in regulatory fines since 2008.[14] To reduce this risk, banks have invested significantly in their compliance operations. Senior FI executives expect the overall cost of compliance to double by 2022, reaching 10% of revenues.[15] While becoming stricter, regulatory agencies are also extending their roles to drive innovation and improve the functioning of the ecosystem. With TARGET instant payment settlement (TIPS), the European Central Bank (ECB) acts as an infrastructure provider, offering settlement services to accelerate the adoption of instant payments in the Eurozone. Similarly, central banks such as the Bank of England and the Banque de France are experimenting with blockchain, while the Chinese authorities and the Monetary Authority of Singapore have announced that they are developing their own crypto-currency. As the pace of innovation is accelerating, banking institutions will need to open themselves to partnerships with Fintechs and new technologies holders

Cybersecurity has become the #1 issue for Financial Institutions and corporates

Cyber risk is also driving up costs. The frequency of publicly reported major cyber-attacks has increased by 165% since 2013,[16] and Financial Institutions are 300 times more likely to be hit by security incidents than other companies.[17] Regulators are ensuring that proper measures are taken by banks to protect their customers and institutional counterparties. They have introduced new regulations and they have intensified their scrutiny: mentions of cyber-security during regulatory audits are up by 149% since 2013.[18]

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[13] BCG research
[14] Global Risk 2017: Staying in the course in Banking (BCG)
[15] Survey of 183 senior staff at asset managers, brokers and banks by Duff and Phelps
[16] BCG research
[17] Websense Security Labs: 2015 Industry Drill Down report – Financial Services
[18] BCG research

Together with the business consequences of a breach, this pushes cyber-security to the top of CEO agendas and justifies significantly higher investment by banks. As soon as 2015, JP Morgan Chase has doubled its cyber-security budgets to $500M[19] a year and Bank of America's CEO has declared that his cyber-security budget is now virtually "unlimited".[20]

The cyber-compliance-competition triangle puts increasing pressure on banks. None of them can shoulder the triple burden and those that work together or cooperate with FinTech suppliers will have a competitive edge to prosper.

2. Five trends are reshaping the international payments landscape

1 Innovation is scattering the payments business, challenging regulations

Technical innovations are causing vertical disintegration by allowing new entrants to capture parts of the payments value chain. For example, Paypal and Stripe have intermediated the client-merchant relationship and the merchant-acquirer relationship. And some non-traditional players are using payments as a starting point for developing a wider financial offering, thereby causing horizontal fragmentation. Alibaba started Alipay in 2004 as a way of facilitating its e-commerce transactions. Now it is offering a comprehensive range of financial services, from payment acceptance to supplier financing. As they fragment the value chain, these new entrants also put significant pressure on fees banks can offer on these new services, making them more affordable.

This fragmentation creates regulatory "blind spots". The value of transactions going through unregulated channels is now estimated to be $25-40 billion, and is expected to rise to 10% of total non-cash payments by 2022.[21]

The complexity and novelty of the emerging payments ecosystem is a source of anxiety for corporate treasurers concerned about compliance and counterparty risk. But it also creates a business opportunity. Treasurers are willing to pay for an orchestrated customer journey that, while integrating multiple players along the value chain, provides surety (see section 3).

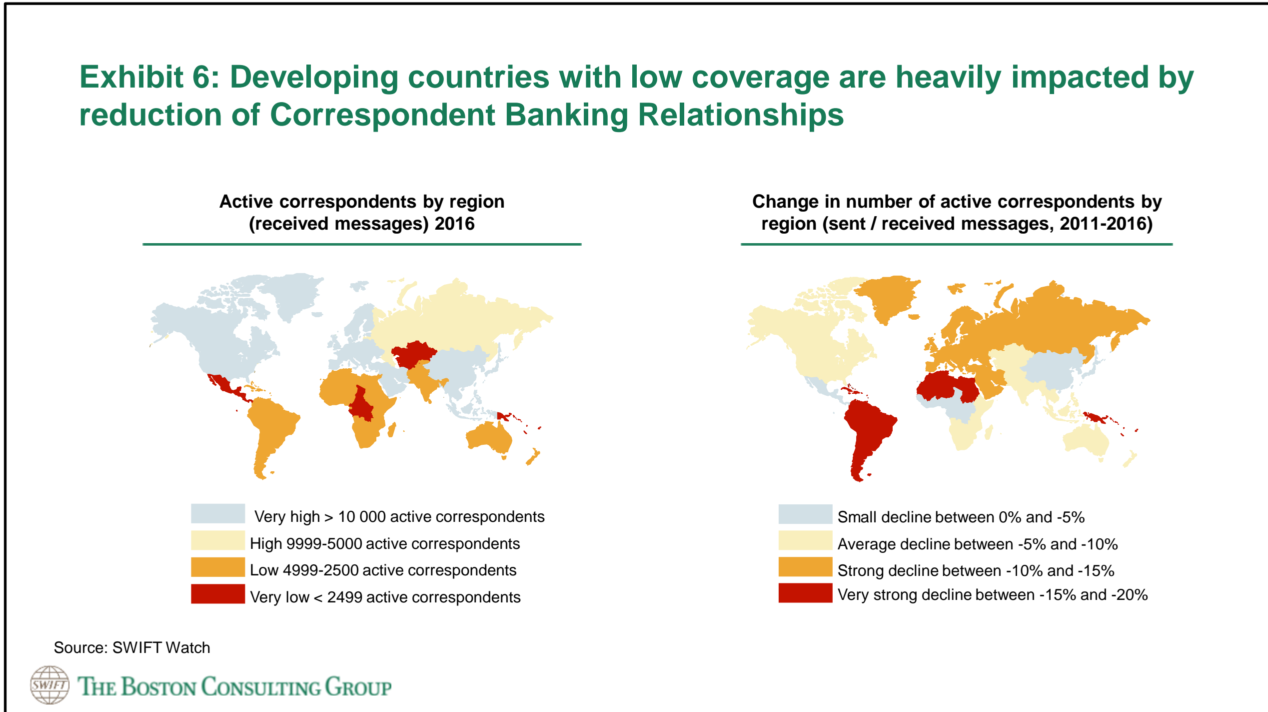
2 Regulatory activism is consolidating correspondent banking

As AML and KYC regulations become stricter, banks need greater confidence in the correspondent banks they use to make international payments. A failure on the part of a correspondent bank could result in heavy fines, especially for banks subject to US and United Kingdom (UK) supervision. Seventy-five percent of global banks have withdrawn from some correspondent banking relationships[22] and the number of active corridors declined by 6.3% between 2011 and 2016.[23]

This is especially reducing the coverage of high-risk and low-volume regions, such as the Caribbean, Africa and Polynesia, which already have fewer correspondent banking relationships. Eighty percent of affected countries have already reported a decline in international wire transfers. The natural response of developed economy banks to the activism of their domestic regulators may thus increase the cost of conducting the trade on which these countries depend.[24]

[19] Andy Cadel, General counsel IP and data protection for JP Morgan to Forbes, 10-Q Quarterly report 2015
[20] Brian Moynihan, CEO of Bank of America on Bloomberg TV at Davos, 2015
[21] Currency Cloud Word Payment Report 2015
[22] IMF staff discussions, The Withdrawal of correspondent banking relationships: a case for policy action – June 2016
[23] SWIFT Data
[24] IMF staff discussions, The Withdrawal of correspondent banking relationships: a case for policy action – June 2016

This response to regulatory activism is moving correspondent banking towards a "regional hub and spoke" model in which first tier international and regional banks act as the interconnection layer on which smaller banks rely for wide coverage. Forty-five percent of banks already report relying on no more than two correspondents for more than 75% of the value of their wire transfers.[25]



In the short term, the withdrawal of incumbent banks will leave space for less regulated players to proliferate. This may seem ironic, given that the withdrawal is being caused by a drive for stricter regulation of payments providers. But it is a predictable consequence of regulatory activism. As the cost of regulatory compliance increases, so do the business opportunities for suppliers who do not bear those costs - yet.

 # 3 Digital is increasing competition for SME customers

Advances in digital banking, and in digital commerce more broadly, have reduced the importance of branch networks for acquiring and serving SME clients. Some market entrants that are 100% digital have achieved sufficient scale to be profitable. For example, Kabbage started its lending offer in 2011 and by 2015 it had reached $41M in revenues, enough to break even. In payments, Adyen earned revenues of $350M in 2015 by providing start-ups with a single platform solution.

The same trend can be seen in international payments. Having captured 40% of the P2P market, money transfer operators and card networks are now actively targeting SMEs. TransferWise, for example, launched "*TransferWise for Business*" in 2016, claiming that its international money transfers cost only a seventh of what traditional banks charge SMEs. The traditional cross-selling model in SME banking is coming under pressure from new entrants offering new "borderless" bank accounts and treasury services.

[25] FSB Correspondent Banking data report – July 2017

 # 4 Data enriched flows and STP are embedding payments within business processes
Enriched data flow standards (ISO20022) and straight-through-processing (STP) allow banks and tech players to offer value-added services inspired by the likes of Uber and Amazon "one click shopping experiences". In retail payments, such services include card linked offers and merchant-funded loyalty programs. For corporates, they enable the further integration of corporate payments into other business solutions. TMS/ERP providers can go beyond their current value proposition and integrate payments into sourcing, shipping, inventory management and customer acquisition. With payments increasingly melting in other processes, interconnection and interoperability become key features of payment infrastructures.

 # 5 Emerging technologies will transform payments architecture
More than 110 global banks have enrolled in SWIFT Global Payments Innovation (gpi). This will quickly deliver improvements in speed and transparency without a revolution in the underlying payments architecture (see box on gpi). It also addresses the cost of international payments, covering main speed and traceability requirements of the corporate users, thus improving their overall experience. To reduce the cost of the nostro-vostro liquidity (which accounts for 35% of the cost of an international payment), for example, gpi proposes a Tracker product that will allow banks to have better visibility on incoming transactions.[26]

Global payments – the route to an innovative international payments solution

SWIFT global payments innovation (gpi) started as a platform initiative, with 45 leading banks. Through this initiative, SWIFT developed a payments tracker in the cloud, a member directory and a service level agreement observer tool, ensuring that the new service meets transparency and traceability requirements.

Live since January 2017, over 110 banks have committed to gpi and more than two million gpi payment messages have already been sent across more than 100 country corridors.

Additional features and services will be added to the platform. These include:

- A stop and recall payment service, allowing a bank to stop a payment no matter where it is within the correspondent banking chain
- The transfer of rich payment data, along with the payment, with the additional data necessary for payments compliance checks or line item details. This will facilitate reconciliation with invoices
- An international payments assistant to help corporates initiate error free cross border payment instructions.

Looking to future innovations, SWIFT has launched a distributer ledger technology (DLT) proof of concept (PoC) with 30 banks, which will test the technology's ability to reconcile international nostro accounts in real time. Initial findings are due to be reported at Sibos in October. SWIFT has also launched an industry challenge initiative working with the global FinTech community to develop additional overlay services on the gpi platform using its APIs.

For more information about gpi please visit www.swift.com/gpi or download the SWIFT gpi iPad app.

Direct interconnection of end-users' banks through distributed ledger technology (blockchain) may be perceived as the next frontier for international payments. However, full interconnection through ACH is unlikely in the short or medium term because it would require a universally trusted global KYC registry. Nevertheless, payments processed through blockchain may be viable in closed-loop corporate environments for purposes such as internal netting or making payments to regular suppliers. Indeed, initiatives in the field are underway. R3's Corda Distributed Ledger Technology (DLT) initiative aimed at securities, has raised $107M[27] and established industry players are launching pilots – Visa's B2B Connect, for example.

[26] gpi data from SWIFT

[27] Corda press release May 23rd 2017

The real difficulty for FinTechs is not making international payments per se, but ensuring they are reliable and compliant in a complex regulatory environment. Though blockchain may increase liquidity by ensuring more fluid exchanges, it does nothing to reduce the burden of KYC regulation. This may also delay banks in adopting this technology. Today they manage international payments through on average 60 to 100 trusted correspondent banks. A blockchain network the size of SWIFT would imply managing compliance for ~575 000 direct bank to bank relationships.[28]

Besides GPI and blockchain, which rely on dedicated rails, there are initiatives that aim to serve market niches by exploiting other already-existing rails, such as Virtual Prepaid Cards. This is how Edenred is capturing share in the B2B market, targeting clients with frequent cross-border transactions, as exemplified by their recently announced partnership with IATA. Insofar as such initiatives are successful, they will reduce the volumes passing through the typical transaction banking channels.

3. Banks' prospects in the new international payments environment

International payments account for only 5% of transactions but 12% of the revenues banks derive from payments[29]. However, costs are high and rising. Compliance costs have doubled since 2013, increasing the total cost of an international payment from $25-35 to $28-40 today.[30] And pricing is under pressure. The incumbent banks, relatively unchallenged, in international payments for decades, now face competition from tech giants and digital challengers. Hypothetically, an alignment of revenues from international payments on domestic payments levels could generate a 60% revenue loss.[31]

To survive in the face of increased regulation and competition, banks will need to invest in emerging technology and in providing improved services to their clients. These changes are critical for them to maintain their competitive positioning on the corporate space. How well they are likely to fare depends on their starting position

Global transaction banking giants will experience the least difficulty. In fact, they are likely to gain market share because their scale means the unit costs of the required investments is lower for them than their smaller competitors. As in other lines of business, automation and increased regulatory costs (some of which are fixed) are increasing the advantages of scale. Nonetheless, they must still adapt and co-operate with technology solutions by way of APIs to prosper. Getting this transformation right, which has so far proved difficult across sectors, is key to their continued success.

At the other end of the spectrum, small domestic banks will arrive at the destination to which they have been travelling over recent years. They will need to focus on "relationship banking", providing services based on the trust gained from familiarity with their clients, and outsource their subscale international payments operations to larger players.

The situation of mid-sized banks is the most problematic, not only in international payments but more generally. As banking becomes more automated and regulated, their costly branch networks and lack of scale compared to global transaction banking giants is putting them at a serious disadvantage, exposing them to fierce competition from FinTechs and new infrastructure technology providers alike.
They have devoted recent years to regulatory compliance and process cost control without taking on the more profound reinvention they require. Some are likely to fail in this area.

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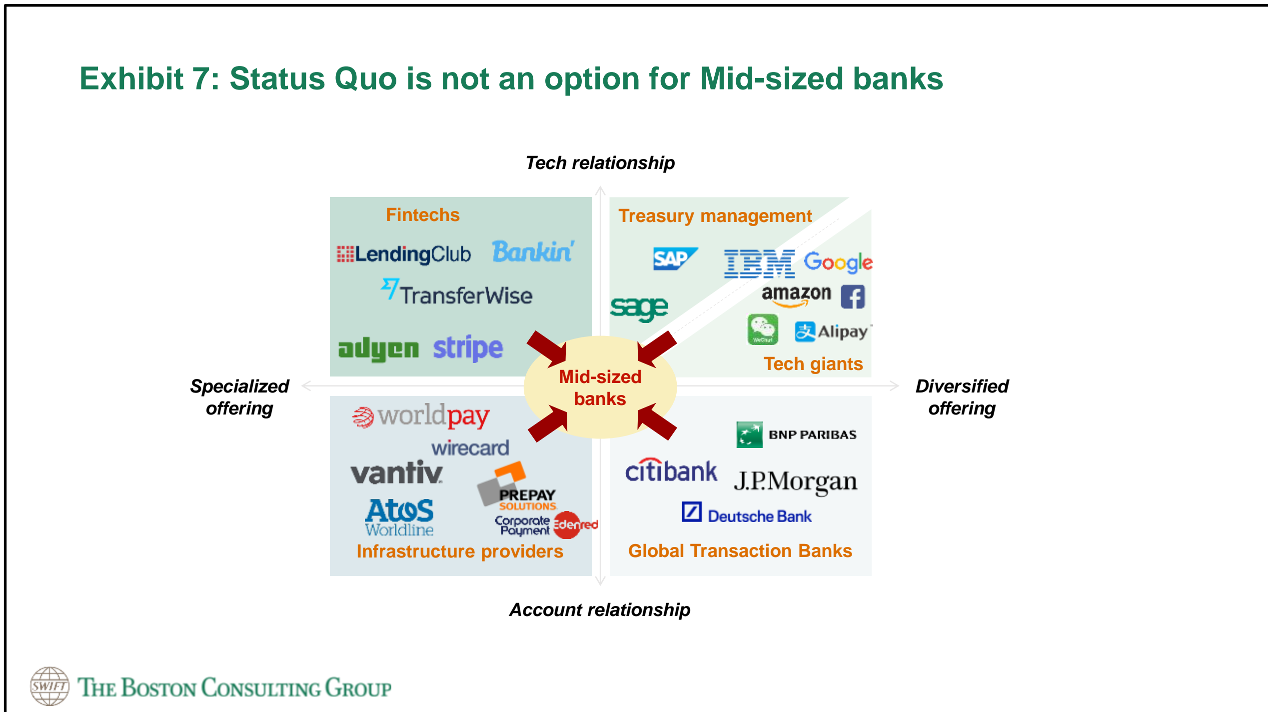
[28] BCG analysis based on SWIFT data
[29] Analysis based on BCG's Global Payment Model data
[30] SWIFT data from GPI
[31] Analysis based on BCG's Global Payment Model data

And those that survive risk becoming mere suppliers of balance sheet capacity and back office processing through the platforms of tech players who "own the customer", leveraging new digital, often mobile, front ends unless they manage to build strong differentiated positioning.



To survive, mid-sized banks need to choose between four business models, the best choice depending on where their competitive advantages lie:

1. **Focus on flagship products to own a vertical**
IT oriented banks with a flagship product - such as trade finance, supplier financing or dynamic discount - can invest to own a vertical from top to bottom. The next step for these players is to use software developers and vendors to offer their corporate clients a seamless weaving of financial services, such as payment, into their business processes. To reach this position, banks will need to acquire IT services companies, reorganize and invest in infrastructure to ease the integration.

2. **Secure client relationships by becoming a "navigator" in an open banking world**
Mid-sized banks that benefit from long-established and deep customer relationships can refocus on serving the needs of their multi-local corporate clients. To do so, they must develop a top quality platform, going beyond international payments, by integrating the best products of FinTechs and other banks. With 35% of corporate treasurers willing to pay for such services,[32] banks that offer it can protect their revenue generating credit businesses and avoid disintermediation. Seamless customer journeys across multiple front-ends and unmatched customer experience will be cornerstones of this strategy. Banks aiming to become "navigators" will need to deploy a systematic and structured partnership strategy. A pure "package and distribute" model is unlikely to be viable for all players, because it is founded on agile IT development capabilities, which would require most banks to profoundly changing their working culture.

[32] BNPP BCG Corporate Treasury Insights 2016

3. **Leverage infrastructure expertise to become a scale payment factory**
Mid-sized banks with efficient processes can become "infrastructure factories", bringing down transaction costs for end clients. Interoperability and scale in back-ends will be keys to ensuring quality and efficiency. The increased fragmentation of solutions, stricter regulations and card/non-card convergence mean the investments required to build and maintain such infrastructure are massive. Such infrastructure factories are likely to materialize around regions, with coherent standards and regulation, resulting in a "hub & spoke" model. These players will act as the first level connection layer between regions, responsible for ensuring the inter-operability, efficiency and transparency of the overall system. This approach is heavily disruptive: it requires to move away from historical customer relationship business, and put them in competition with GTBs infrastructure providing operations, but if they don't, they leave an opportunity for external market players to develop.
These international infrastructure factories will have a role to play beyond traditional processing and interconnection facilitating also compliance and standards interoperability (see below).

Handling compliance – changing the rules of the game

We also expect an entirely new type of player to emerge in the payments ecosystem. Regulatory compliance is a commodity, in the sense that clients do not value it beyond customer protection, and it is not, therefore, a selling point for banks. Most banks and FinTechs in the payments, especially the smaller ones, would be glad to reduce the burden of compliance. There are two foreseeable ways in which this may happen.

The first is the emergence of regional "compliance factories", perhaps created by syndicates of banks in the region or Regtech companies, offering KYC, sanctions, fraud detection and AML outsourcing services. This is already materializing with some KYC utilities initiatives, such as The KYC Registry by SWIFT. By applying advances in AI, machine learning and robotics to compliance processes, they should be able to largely automate and standardize them as well as to capture richer information, reducing false positives. This industrialisation, combined with the scale of these Regtech factories, could materially reduce the unit cost of compliance.

A more disruptive possibility is the development of a distributed compliance system, whereby a KYC performed by any qualifying bank is then available to any other bank in the network. This "compliance sharing" could be achieved with little more than regulators' approval of the approach and certification.

4. **Consolidate to become GTB giants**
Mid-sized banks can acquire other banks to gain the scale required to operate efficiently in the emerging environment. This will allow them to provide a wide range of proprietary tailor-made solutions to their large and demanding clients. And their scale will give them the capacity to invest in IT, to manage product complexity and to absorb increasing compliance costs. This will puts them in a strong position to act as entry points to the international payments ecosystem for smaller banks and large corporates alike. However, this strategy is extremely challenging, since it requires the significant development of client and product portfolios, and the successful integration of acquisitions.

Whichever option banks take, and however difficult the process of change, corporate clients will benefit. They will have access to high quality tailor-made services, STP and payments embedded in their business processes, coupled with lower transaction costs. They will find it easier to do business both domestically and across borders, but at the same time they will be facing an increasingly complex and fragmented ecosystem requiring a tighter management of trust.

4. The emerging role of other players in international payments

FinTechs and other technology companies will continue to drive innovation in international payments. To grow, they will need to gain the trust of clients and other members of the payments ecosystem, perhaps by forming strategic partnerships with already trusted institutions. Then, having grown, FinTechs will need to manage the increased scrutiny of regulators.

Regulators themselves will need to continue their orchestration roles within the broad payments ecosystem. Standardization of data and APIs must be the foundation of the new open-banking ecosystem that regulators seek to bring about. This will guarantee interconnectivity, facilitate collaboration and accelerate automation thus reducing overall cost. To achieve this, regulators will need to find the balance between ensuring security and fostering innovation.

* * *

Banks can still win at the international payments game. However, they need to deeply transform their services and operations to gain agility, trust, reach and build a scalable model. Midsized banks, at the front row of international payments transformation, need to carefully consider their model and decide where they want to play depending on their current positioning.

After years of dissatisfaction, corporate clients face an emerging world with scores of choices and better deals. But they also face growing complexity and increased risk. They will need to carefully decide how to trade-off speed, cost and risk when choosing their suppliers of international payments and related services. With the burden of compliance creeping from the financial sector and into the corporate world, they will increasingly need a trusted advisor to guide and support them, which creates additional opportunities for banks.