

# Linking interbank payment systems across borders and currencies: how easy is it?

**The dream of making cross-currency payments faster, cheaper and more transparent by building simple links between domestic payment systems has proved elusive, but refuses to die. It can be done, says Harry Newman, Head of Banking at SWIFT. But he warns that success is rare and the obstacles to success are great, so that correspondent banking remains the preferred – though far from perfect – alternative.**

Superficially, linking the payment market infrastructures (PMIs) of different countries ought to be easy. After all, PMIs are restricted to a single asset class (cash) and exchange nothing but digital information (mainly instructions to move cash from one account to another). Surely we should be able to build a technical link and exchange messages? Well, the realities are harder to adjust than a superficial assessment suggests.

## Links do not lower currency barriers

Chief among them is the fact that different countries generally use different currencies. In any currency pair, there is not one asset to be exchanged but two. To transfer cash from, say, a Sterling account to a US dollar account entails a foreign exchange transaction. Since PMIs do not normally exchange currencies, this necessitates the involvement of at least one bank to execute the trade.

More often, and especially in minor currencies, the foreign exchange trade also requires not one bank, but two. This is because cash is an asset, issued into the financial system by a central bank or government ministry. Given the importance of monetary policy to sovereignty, price stability and

economic growth, central banks are reluctant to issue liquidity in their currency to any bank they do not regulate.

An entirely valid solution to foreign exchange for PMIs would be to appoint a single bank (or even multiple banks) as foreign exchange agent(s). The PMI could then provide a foreign exchange trade execution service as an integral part of the link. However, foreign exchange trading is a business for which banks compete fiercely, and it is unlikely that other banks would make use of a link that gave currency business to a competitor. This solution to the issue makes it unattractive to others.

Another option would be to issue instructions in the currency of the receiving country only. However, this merely shifts the foreign exchange issue elsewhere. To be exact, the sender has to maintain an account with an agent in the receiving country in the relevant currency, like a nostro account.

Any such link between two jurisdictions is also likely to require oversight by regulators in both countries, as both PMIs will be processing transactions in a currency which is not their own. Central banks will need to reach agreements to do that. This makes regulation more awkward

than current arrangements, in which the sending bank connects with one payments system and the receiving bank with the other, and each bank is regulated separately in its own jurisdiction.

### Regulatory, scheme and data privacy barriers abound

But the barriers are not restricted to the regulatory (regulation in both countries), the infrastructural (access to the settlement system), or the commercial (competition for foreign exchange business). Each jurisdiction has different laws, regulations and reporting requirements. Each also has specific “schemes”<sup>1</sup> defining payment types, as well as different technical standards, such as identifiers and message formats. Market practices are attuned to local markets. No country will change these simply to facilitate cross-border payments.

Even between jurisdictions that use the same currency, these formal and informal barriers have proved difficult to dislodge. In the Single Euro Payments Area (SEPA), where 19 of the 34 countries share a currency, years of effort to harmonise payments reporting, business and operational rules, and market practices, have still not spared payments banks from having to adapt to multiple national regulatory regimes.

Differences in business rules and practices translate into variations in message standards, even if they are both using a global standard such as ISO 20022. It is possible to overcome these - and there are examples of how it can be done, such as the approach pioneered by the International Payments Framework Association

(IPFA) - but it always requires work. Overcoming barriers is more than a mapping issue.

Data privacy is another barrier to linking payment systems across borders. Inside individual countries, local banks apply national data privacy laws on a day-to-day basis. Any link carrying payments between any two countries, on the other hand, is subject to the data privacy laws of both jurisdictions. Banks active in multiple countries are used to dealing with different local data privacy requirements, but few local PMIs are currently equipped to take on the load of managing multiple data privacy requirements.

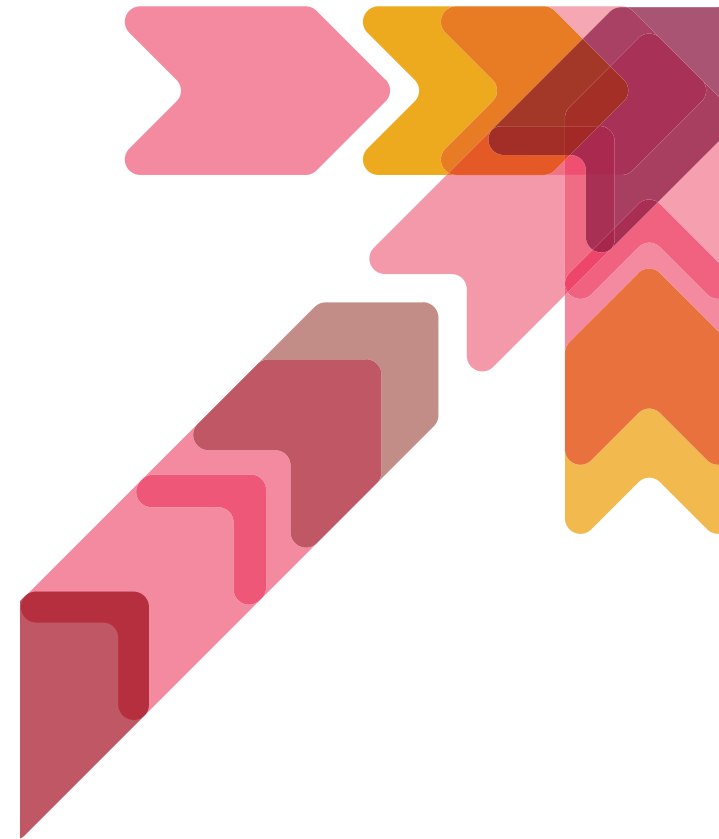
### Technical barriers also a problem

The barriers are technical as well as regulatory. National “schemes,” which set the technical standards for moving money, vary between systems in the same country, let alone across borders.

Different systems are implemented in ways that create technical and operational barriers which have to be bridged. Security is always an issue too, as different countries have different security arrangements to comply with national rules, such as the list of “schemes” that are permitted. The challenge is not insuperable, because it is a matter of investing in suitable technical infrastructure, but it is still non-trivial.

Using the same vendor for two payment systems could make some of the technical challenges easier to overcome, but that still leaves non-technical issues unaddressed. Once all the mappings, technical variations, different market practices and regulations are resolved, a bank or near-bank is still required to complete the foreign exchange transactions and be responsible for making payments in the relevant payment system.

<sup>1</sup> “Scheme” is payments industry shorthand for a collection of business rules and technical standards for the execution of payment transactions within a particular community.



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## ACH links likely to founder on settlement, not standards



**There are two principal challenges to cross-border links between domestic payment systems such as ACHs, and the hardest to clear is not message standards but settlement mechanisms, says Jeremy Light, Managing Director, Accenture Payment Services.**

Domestic payment systems process high volumes of local payments quickly and efficiently, but they tend not to be inter-operable with payments systems in other countries. A bank in France, for example, can send a payment with ease to a beneficiary of another bank in France through the local automated clearing house (ACH).

But the same bank cannot use the domestic ACH to send a payment directly to a beneficiary in Australia. Instead, it needs to use its correspondent banking network - a route that is typically slower, more expensive and more error-prone. So how can ACHs be linked so that they are inter-operable, enabling seamless, fast and efficient payments across borders?

To make this possible, several factors need to be addressed. They include governance, liability agreements, financial crime controls and foreign exchange mechanisms, but the two most important factors to get right are messaging and settlement. Common messaging standards permit inter-operable processing, while cross-border settlement necessitates a mechanism that allows unrelated banks in different countries to settle payments with each other.

On the messaging side, the obvious answer is to use the ISO 20022 standard. ISO 20022 is being widely adopted by banks and ACHs around the world, and not just for payments either, but for other financial services as well. However, ISO 20022 is a flexible framework, not a rigid message set, which can create incompatibilities which hamper inter-operability.

ISO 20022 has a data dictionary for common data format definitions, for example. But the actual data elements used by

an application are dependent on the needs of the application, and different applications can have different needs. Use of ISO 20022 does not therefore guarantee inter-operability between payment systems that use it.

There is an analogy with domestic debit card "schemes"<sup>1</sup>. They use the older ISO 8583 standard, but that does not make them compatible with international card schemes such as Visa, MasterCard and American Express, even though the international "schemes" also use ISO 8583. This is why domestic debit cards often cannot be used outside their home country, or on-line.

Where the international "schemes" are also ahead of domestic alternatives is in the other important factor in cross-border inter-operability between ACHs: efficient settlement. A core element of the international card value proposition is the provision of inter-operable payments around the world. A Visa card issued by a bank in Germany, for example, can be used to purchase goods from a merchant in Singapore.

The mechanism works because Visa enables the bank that issued the card in Germany to settle with the bank used by the merchant in Singapore. This is a major competitive advantage of the international card "schemes" in cross-border payments, but it took them years to develop the settlement networks on which the service depends. It will be hard for ACHs to match them quickly.

A settlement mechanism that enables payments between banks across borders is the larger of the two obstacles to inter-operability between ACHs. This is not surprising. Settlement is a challenge to cross-border inter-operability between any pair of domestic payment systems. Exchanging messages to a common standard, such as ISO 20022, is important and achievable. It is adding the settlement component that ACHs will find most difficult to accomplish.

<sup>1</sup> "Scheme" is payments industry shorthand for a collection of business rules and technical standards for the execution of payment transactions within a particular community.

## How would interlinking PMIs work to execute cross-border transactions?

However, it is safe to assume that these obstacles can be overcome. Once they are, each PMI can carry payment types defined in other PMIs, exception handling between the two systems can be defined, and different national addressing schemes can be taken into account.

In sum, the list of obstacles to direct links between payment systems in different countries is a long one. It includes the need for access to national settlement systems, dual regulation, meeting security concerns, differences between laws, regulations, business rules, market practices and reporting requirements, variations in message standards, misgivings about data privacy, and technical and technological mismatches.

Even regulatory barriers can be cleared, though the number of regulators increases in line with the number of PMIs involved in the transaction.

At that point, the most difficult issue that remains is foreign exchange. Imagine that a firm in the United Kingdom needs to pay a US dollar account holder in the United States. There are three ways in which the payment can be made. The first is for the payment to be made in US dollars. The second is for the payment to be made in Sterling. The third is for the payment to be made in Sterling and converted to US dollars before it lands in the account.

To send a payment in US dollars, one of three things must be true. Either the sending bank has an account in the US dollar payments system (in which case it is a bank regulated in the United States), or it can clear and settle directly in the United Kingdom payment system because the Bank of England is entitled to settle US dollar transactions, or it is using a correspondent bank to access the US dollar payments system.

If the payment is sent in Sterling, the reverse applies. Either the receiving bank has a settlement account in the United Kingdom settlement system (in which case it is a bank regulated in the United Kingdom), or it maintains a Sterling account in the United States payments system (because the Federal Reserve is entitled to settle Sterling transactions), or it is using a correspondent bank to access the Sterling payments system.

The idea of central banks offering banks remote access to their settlement systems through reciprocal currency accounts can scarcely be described as a revolutionary or even particularly compelling notion. A small class of regulated institutions already belong to several central bank-operated payment systems. Links that work in that fashion add nothing new.



The third option, of sending the payment in Sterling and converting it to US dollars, offers nothing different either. Unless the foreign exchange bargain is executed by the PMIs or by some separate mechanism within the proposed link - neither of which is likely - each system would have to appoint one or more correspondent banks in the other country to execute its foreign exchange business.

In short, correspondent banks continue to play a crucial role. Even in the examples of inter-linked PMIs that do exist - such as those between PMIs that subscribe to the standardised operating framework devised by IPFA - there always remains a correspondent bank supporting each system to execute foreign exchange transactions and take responsibility for payment.

## Could central banks provide a solution?

A direct link operated by central banks could reduce this reliance on correspondent banks. If the central banks operating the link open settlement accounts for banks in their respective currencies, or execute foreign exchange trades on behalf of banks using their settlement systems, there would be no need for correspondent banks.

However, outside a fixed exchange rate regime, it is hard to see why central banks would assume such a risk-taking role in the foreign exchange markets.

That said, there are cases of central banks offering foreign currency settlement. When the euro was introduced, the European Central Bank (ECB) linked the domestic payment systems of member-states. Until it became obvious they would remain outside the euro, non-euro central banks were allowed to settle euro transactions (though not to generate liquidity).

Other central banks host foreign currency clearings, usually in major currencies such as the US dollar and euro, with the aim of allowing banks to make foreign currency transactions in the local time-zone. In this case, they are typically not offering final settlement: correspondent banks usually continue to settle the amounts net at the end of the business day through TARGET2 (for euro) and Fedwire (for US dollars).

This is unsurprising. Even if it provided useful support to settlement links between payment systems, central banks are cautious about encouraging offshore uses of their currency, since it impinges on their control of domestic monetary conditions.

The understandable reluctance of central banks to endorse offshore settlement, or engage in foreign exchange on behalf of commercial banks, places limits on the effectiveness of links between payment systems. It means that the viable solutions for inter-linking of payment systems will continue to involve a bank (or near-bank) to execute foreign currency transactions and assume final responsibility for settling the payment.

It follows that correspondent banks - one in each country holding an account with the other, and taking responsibility for the foreign exchange and the payment - will remain by default the principal linkages across borders. They have the merit of operating in an open and competitive market that offers users choice. The correspondent banking model also works, and it can facilitate payments between any pair of currencies.

That said, correspondent banks are seen as a slow, opaque and relatively expensive method of moving cash between currencies. Even as they respond to pressure to improve both quality and transparency, they remain vulnerable to new entrants which hold accounts directly at payment systems in multiple countries. So the ultimate question is whether correspondent banking can evolve sufficiently fast to provide a better service and payments experience capable of competing with the new entrants. But that is a story for another time.

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