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CROSS-BORDER LOW VALUE PAYMENTS AND REGIONAL INTEGRATION: ENABLERS AND DISABLERS

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Executive summary

This paper discusses the enablers and disablers of cross-border low value payments and regional integration. The current landscape for cross-border payments is dominated by correspondent banking relationships. Relying on one or more correspondent banks to send payments abroad is slow and expensive, and both sending and receiving banks often have little to no visibility of payments as they are being processed, and they often do not know what fees will be deducted until a payment arrives. As the speed of payments increases in domestic environments, banks, corporates, and consumers have come to expect faster and more efficient payments across borders as well, and the current reality of correspondent banking is increasingly falling short of customer needs and expectations.

As regions integrate economically and promote open trade among member states, maintaining fragmented national payment systems can become a hindrance to larger goals of economic development and cooperation. Any form of regional integration will necessarily reflect local realities, including the level of domestic payment system development, technological and economic progress, the level of payment sophistication, political and business cooperation, and the level of integration desired by key stakeholders in the region. Pursuing regional payments integration means dealing with issues such as establishing centralized management, finding a common settlement currency, setting a targeted scope, implementing common data standards, and harmonizing IT infrastructures. Navigating these local realities and vested interests to develop a cross-border scheme or infrastructure that benefits local stakeholders is a complex task. Coupling local knowledge of domestic markets with lessons learned from other regions can be a key factor in ensuring success in regional payments integration.

This paper will focus on key questions such as how “success” is defined for regional payment schemes and infrastructures, what enables and disables successful implementation, what the key features of schemes to foster cross-border transactions are, and the role that central banks and other stakeholders play in regional payments integration. It is meant to inform and guide participants who wish to pursue regional payments integration by offering lessons from other geographies and examining measures of success in a variety of regional payment models.

Introduction

While much research has been devoted to the guidelines and models that can be followed for successful regional integration of financial payment infrastructures, less has been documented on the quantitative and qualitative evidence of certain models or rules. The purpose of this paper is to aid regional development organizations and domestic payment systems to make informed decisions based on answers to the following key questions:

- What are the best models for a regionally integrated payments system? What are the enablers and disablers for successful implementation?
- What are the key features of potential schemes to foster cross-border transactions?
- What is the role for central banks of the currencies involved?
- What role do standards have as an enabler for interoperability between domestic and regional non-urgent payment systems and banks?

At the center of these questions rests an important discussion of the motivation behind such regional integration projects and how to judge their success. This research paper focuses on nine different regional payments initiatives from around the world.

The paper begins with a look at the methodology and a brief description of each of the nine systems examined. The next section looks at how success is defined for the different models of regional payment systems integration, which is followed by a discussion of the key features of different cross-border payment schemes. The paper then turns to a section on the role of standards in regional payments schemes. The next section lists the enablers and disablers of regional payment schemes, and ends with an examination of the best models for regionally integrated payments systems.

Related research

While several researchers have dealt with the issue of regional payments integration, we have not identified a report that looks specifically at enablers, disablers, and measurements of “success” across many different regions. In 2008, Kari Kemppainen of the Bank of Finland published a report specific to SEPA¹ that looked at the economic effects SEPA was likely to have by using a spatial competition model of retail payment networks in Europe, ultimately concluding that the implementation of the SEPA scheme within the EU would not lead to the goal of a competitive and integrated single retail payments market. Guido Schaefer’s 2008 economic analysis² also focused on SEPA and came to a similar conclusion as Kemppainen. He saw the positive effects of SEPA to be overstated even though the benefits of the project, such as the further promotion of electronic payments among member states, were real.

Also in 2008, James Chapman of the Bank of Canada published a working paper³ that looked at how to craft optimal policy for two connected payment systems that have separate regulators. Chapman sees this issue as having increasing relevance as economies, and thus payment systems, become more interconnected. More recently, the World Bank’s 2014 Guidelines for the Successful Regional Integration of Financial Infrastructures⁴ looks more closely at the key elements, benefits, and drivers of regional integration of financial infrastructures. While there are some similarities between this report and the World Bank study (particularly with regard to guidelines to follow when pursuing regional integration), the World Bank looked more deeply at key elements of a business case for regional payments integration and at the risks in operating a regional financial infrastructure, rather than the key criteria for success.

The focus in this report is not on any individual region, or on the benefits and drivers of payment system integration. The objective here is to create a structured approach to

¹ Kemppainen, K. (2008) „Integrating European retail payment systems: some economics of SEPA.“ Bank of Finland Research Discussion Paper 22/2008.

² Schaefer, G. (2008) “An Economic Analysis of the Single Euro Payments Area (SEPA).” FIW Working Paper No. 111, January 2008.

³ Chapman, J. (2008) “Policy Coordination in an International Payment System.” Bank of Canada Working Paper 2018/17.

⁴ World Bank (2014) “Guidelines for the Successful Regional Integration of Financial Infrastructures.” World Bank Financial Infrastructure Series.

evaluating success factors that come out of concrete lessons learned in individual regional integration projects. This report will look at how success is defined for each regional project and will examine the enablers and disablers for successful integration within each region and across all nine regional integration projects profiled here.

Methodology

In addition to secondary research completed at the outset of the project, we completed a detailed executive interview process to assess how payment associations, banks, and other stakeholders have approached regional integration and determine the best practices for doing so. At the beginning of the executive interview process, we drafted an interview guide based on the questions highlighted by the SWIFT Institute in the call for proposals.

We conducted eight executive interviews with high-level representatives at banks and payment associations from regions at varying stages of integration. The wide range of interviews broadened our understanding of how stakeholders in these markets view integration. The following organizations were covered during the executive interview process:

- Association of Southeast Asian Nations (ASEAN)
- Common Market for Eastern and Southern Africa (COMESA)
- International Payments Framework Association (IPFA)
- Nordic Payments Area (NPA)
- South African Development Community (SADC)
- Single Euro Payments Area (SEPA)
- Sistema de Pagamentos em Moedas Locais (SML)
- West African Economic and Monetary Union (WAEMU)
- West African Monetary Zone (WAMZ)

Following the interview process, we analyzed the interview findings and evaluated the different models of integration, the enablers and disablers of regional payment projects, and how success is defined in these markets. This report provides a thorough account of regional payments integration at varying stages around the world.

Systems examined

The paper examines lessons learned, enablers and disablers, and success factors in nine different regional integration projects. The markets surveyed are at varying stages of integration and many feature differing models of integration. Below is a brief description of each market in the report.

Association of Southeast Asian Nations

The Association of Southeast Asian Nations (ASEAN) is a community for economic and political cooperation between 10 nations in Southeast Asia. ASEAN was formed by Indonesia, Malaysia, the Philippines, Singapore, and Thailand in 1967 with the goal of increasing economic growth, social progress, and cultural development between member states. Member states have also developed a vision for an ASEAN Economic Community (AEC) by 2015, which would further integrate member states economically. One aspect of the AEC is the integration of ASEAN payment systems, which would begin with the integration of the five founding members' RTGS systems through the development of common protocols that will enable the systems to link together.

ASEAN members have also developed the Asian Payment Network (APN), which seeks to develop common standards and guidelines to enable domestic and regional switching of ATM networks and low-value payment systems. As in other parts of the world, there is an increasingly thin line between integration on high-value and low-value payments in ASEAN. Payments integration is being pursued on each front, as both are seen to foster increased trade, economic development, and financial inclusion in ASEAN member states.

Common Market for Eastern and Southern Africa

The Common Market for Eastern and Southern Africa (COMESA) is an initiative that began in 1994 in an effort to increase economic cooperation and security among its 19 member states. In 1984, the COMESA Clearing House (CCH) was established to enable member states to trade with each other in their own national currencies. Payments integration in COMESA took another big step forward in 2009 with the creation of the Regional Payment and Settlement System (REPSS), which enables participating member states to connect to a central clearing and settlement mechanism through their national central bank to make cross-border payments without using correspondent banking channels.

The REPSS system is not intended to replace domestic payment systems. Customers that wish to make a cross-border payment through REPSS inform a commercial bank, which then routes the payment to REPSS via their national central bank. Central banks are the only direct participants in REPSS, which clears and settles payments in either US dollars or euros. There is no value limit in REPSS; it clears and settles both high- and low-value payments. It is believed that REPSS will help bring about increased trade and the creation of a common market within COMESA.

International Payments Framework Association

The International Payments Framework Association (IPFA) is a voluntary association of banks, clearing houses, payments processors, and software vendors that provides rules, standards, operating procedures, and guidelines to improve cross-border payments. The IPFA was conceived after a group of banks and clearing houses discussed the concept of creating a global ACH and realized how difficult it would be to develop and implement. Instead, the group worked on proposals for a low-value cross-border credit transfer transaction framework with a governance structure, rulemaking, and standards to enable participating institutions to exchange international payments more efficiently.

The idea behind the IPFA is that since it is so difficult to get countries to change their local standards and business practices, it is better to develop a common standard that is mapped to local standards to enable straight-through-processing (STP) for transactions to or from other IPFA members. The IPFA standards and framework were developed out of commercial interest to lower costs and increase the efficiency of low-value cross-border payments. Today, IPFA members have created links to every continent, thus allowing member organizations to more quickly and efficiently exchange cross-border payments.

Nordic Payments Area

The Nordic Payments Area (NPA) is a vision that involves the harmonization of payment standards and infrastructures among the Nordic countries (Denmark, Norway, Sweden, and Finland). Participants seek to create a model similar to that in SEPA in which the Nordics

develop a single payments infrastructure that will be used by all members. Currently, each Nordic country has their own payments infrastructure and payments standard. The region itself shares deep economic integration, with banks and corporates in the four Nordic countries often needing to connect to separate infrastructures in each country. The ultimate vision of the NPA is to enable businesses and consumers in each country to connect to a centralized infrastructure to make payments to and from any other NPA country.

The standards and technical guidelines currently being pursued by the NPA are similar to those in SEPA. With the Nordic area being so economically integrated with SEPA (indeed, Finland is already a part of SEPA), it makes sense to converge with the European single market. But there is a major difference between the NPA and SEPA, namely the fact that any NPA infrastructure would have to clear and settle in multiple currencies. While the development of the NPA is still in the early stages and is currently focused exclusively on developing and implementing common technical standards, the multi-currency solution will be an integral factor for the region.

Southern African Development Community

The Southern African Development Community (SADC) is a 15 member regional economic community whose stated goals are poverty eradication, economic development, and security in Southern Africa. One aspect of the region's plans for economic development has been the development and implementation of both low- and high-value cross-border payments infrastructures for the region, which was motivated by a desire to increase trade and financial inclusion. The SADC region features member states with varying degrees of payments sophistication. Due to the stark differences between ACH processing capacity in different SADC member states, it was decided that a centralized infrastructure for both high-value and low-value cross-border payments would be the most operationally efficient way to increase the speed and reliability of payments that previously relied on correspondent banking channels. The regional RTGS infrastructure for high-value payments went live in July 2013. The cross-border credit transfer scheme is currently in the implementation phase and went live in October 2014, with direct debits to follow in 2015. As of late November 2014, the regional clearing and settlement operator is testing certain functionality with participant banks in order to be approved as an operator. In addition, further country testing is being scheduled to ensure banks in all SADC countries currently connected to the settlement platform are able to settle. Individual banks in the region are currently making progress on their respective projects to go live.

Single Euro Payments Area

The Single Euro Payments Area (SEPA) came about as part of a political agenda known as the Lisbon Agenda, which strove for greater economic and political unification in the European Union. Following the introduction of the euro as a common currency in participating EU states in 2000, European commissioners believed that the existence of national payment systems within the Eurozone was a barrier to a truly integrated market. Following the introduction of Regulation 2560/2001 by the European Commission in 2001, banks were prohibited from charging more for cross-border payments within the EU than for domestic payments. EU commercial banks then came together in the mid-2000s and began developing pan-European schemes for credit transfers, direct debits, and card transactions.

Each Eurozone country was expected to replace their existing national standards with the SEPA credit transfer and direct debit schemes. While adoption rates for SEPA CT and DD were initially low after their introduction in 2008 and 2009 respectively, migration to the pan-European schemes picked up greatly in late 2013 and early 2014 in the run-up to the February 2014 migration end date, which was pushed back 6 months in mid-January 2014. As of August 1, 2014, all euro-denominated credit transfers and direct debits have migrated to the SEPA schemes, bringing about an integrated payments market under the common euro currency in the European Union.

Sistema de Pagamentos em Moedas Locais

Sistema de Pagamentos em Moedas Locais (SML, *System of Payment in Local Currency*) is a bilateral agreement between the Brazilian and Argentinian central banks that allows importers and exporters in each country to send and receive funds in their local currency. The agreement is aimed at eliminating the use of the US dollar to convert between the Argentinian peso (ARS) and Brazilian real (BRL). This is done by setting an ARS-BRL exchange rate that is based on the ARS-USD and BRL-USD wholesale exchange rates. The two central banks settle the net amount of transactions periodically to save liquidity. The SML agreement is intended to increase access of small- and medium sized enterprises (SMEs) to international payments and reduce the cost of transactions by eliminating the need to convert each currency into USD.

West African Economic and Monetary Union

The West African Economic and Monetary Union (WAEMU, often referred to by its French acronym UEMOA) is a monetary union comprised of 8 nations in West Africa: Benin, Burkina Faso, Guinea-Bissau, Ivory Coast, Mali, Niger, Senegal, and Togo. All eight WAEMU countries share a central bank and a common currency, the CFA franc. WAEMU features three main pillars of payment system integration among all eight member states: a shared RTGS system (STAR-UEMOA), a low-value system for interbank ACH payments (SICA-UEMOA), and a regional interbank card switching and payment system (GIM). As in SEPA, the WAEMU states have a tightly integrated payment system and a very advanced payments infrastructure. However, since only 10 percent of WAEMU citizens have bank accounts, these advanced payment systems are underused. WAEMU states are also members of the Economic Community of West African States, which also includes the West African Monetary Zone (see below) and Cape Verde.

West African Monetary Zone

The West African Monetary Zone (WAMZ) is a group of six countries in Western Africa: Gambia, Ghana, Guinea, Liberia, Nigeria, and Sierra Leone. One of the institutions established by WAMZ is the West African Monetary Institute (WAMI), which is tasked with commencing technical preparations to establish a West African Central Bank and a common currency for WAMZ, under which the payment systems of each WAMZ state would be integrated. But the goal of a common currency, central bank, and integrated payments infrastructure is still a long-term vision.

Payments integration in WAMZ is driven by a desire to increase formal trade. A lot of commodities are already traded across borders in the region, but most of this trade is done informally using hard currencies. As WAMZ states began discussing payment system integration, it first became necessary to develop payment and settlement systems in 4 out

of the 6 WAMZ member states: Gambia, Guinea, Liberia, and Sierra Leone. All 4 countries developed new RTGS systems and low-value systems for ACH transactions using the same software, standards, and solution provider, which will make the task of interlinking the systems easier. But as of today, the 6 domestic payment systems in WAMZ are not yet integrated.

Defining “success” in regional payment systems integration

Success in regional payments integration can be defined in numerous ways. Every regional payments project has different goals and motivations, which means that success is defined differently in each geography. On a high level, the development and implementation of common rules, standards, or infrastructures among a diverse group of stakeholders is always an integral part of success in regional payments integration. Some systems explicitly target increased membership or increased volume as a measure of success, while others look at cost efficiency or the elimination of a third currency for settlement as key aspects of successful payments integration. But despite the differences between each system in this study, many of them share common definitions of success, including:

- Establishment of a centralized governance structure
- Implementation of common standards
- Cost efficiency
- Wider membership
- Full deployment of an infrastructure
- Full migration and compliance with regional scheme

Establishment of a centralized governance structure

The West African Monetary Zone seeks to integrate its six member states under a common central bank and currency, as well as integrate its domestic payment systems. But before embarking upon this ambitious long-term idea, 4 out of 6 WAMZ member states first needed to develop modern domestic payment systems for both high-value and low-value payments. Gambia, Guinea, Liberia, and Sierra Leone have now successfully implemented these domestic systems to go along with the existing modern infrastructures in Ghana and Nigeria. The next step will involve the establishment of a centralized governance structure to develop standards and technical guidelines that will interlink each country’s system. This has not yet been achieved. Technical integration should be eased by the fact that all four of the new systems were developed by the same solution provider using the same software, and the fact that SWIFT standards are widely used by all 6 WAMZ member states will also be helpful. But a centralized governance structure will still be necessary to develop and oversee the implementation of common standards among all WAMZ states. In contrast to WAMZ, the West African Economic and Monetary Union (WAEMU) has a robust centralized governance structure under the Central Bank of West African States (BCEAO). Centralized governance for the 8 WAEMU member states has enabled them to establish a common currency and develop shared payments infrastructures for RTGS, ACH, and card payments.

Implementation of common standards

For regions with a looser form of integration that establishes voluntary links between independent national payment systems, success can be measured by the implementation of common standards that enable increased automation or full straight through processing (STP) between payment system stakeholders in different countries. The IPFA openly publishes its rule set and standards in the hopes that they will be adopted and deployed in other cross-border and regional projects. This effort has already seen success. When SADC countries worked together to develop common standards and technical guidelines for their regional payments infrastructure, they borrowed heavily from the technical and business rules developed within the IPFA.

The vision of an ASEAN Economic Community (AEC) will depend in part on establishing links between ASEAN member states. Founding members Indonesia, Malaysia, Singapore, the Philippines, and Thailand have already announced plans to develop protocols and standards that will link each country's RTGS system as a first step toward greater payment system integration in the region. While still a long-term vision, the establishment of common standards that enable links between ASEAN member states will be an important measure of success for the AEC vision.

Cost efficiency

For banks, businesses, and consumers who make a lot of cross-border payments within a region, the need to connect to numerous domestic payment systems (whether directly or indirectly) can be expensive. The cost efficiency provided by regional payment agreements, schemes, or infrastructures is therefore a major success factor. The System of Payment in Local Currency (SML) agreement between Brazil and Argentina is partly motivated by a desire to lower costs for importers and exporters in each country by eliminating the need to convert the Argentinian peso and Brazilian real into US dollars. Instead, ARS-USD and BRL-USD exchange rates are set based on US dollar wholesale exchange rates, but without actually requiring conversions to and from US dollars, which reduces overall transaction costs.

The four members of the Nordic Payments Area (NPA) have long shared deep economic integration despite the fact that each country has a different currency. Banks, corporates, and consumers are used to sending cross-border payments within the Nordic region. But the existence of different currencies and payment systems has resulted in artificial arrangements where banks and corporates need to work through local accounts in each country to do business at a reasonable cost. Developing an integrated payment system with a multi-currency option would enable banks and corporates to hold a single account for the entire region. This would benefit both large corporates as well as SMEs, which would experience a simplified process for imports and exports.

Wider membership

When regional payments integration is voluntary, adding new members to the scheme is a key measure of success. This can help increase volume through the system due to new members both putting new volume through and making it more attractive for other stakeholders, who can now send and receive payments to a wider pool of participants. The Regional Payment and Settlement System (REPSS) in COMESA has successfully established links between participating member states by enabling customers to send and receive payments in the local currency without going through correspondent banking channels. But volumes in REPSS are still low, and increasing membership is seen as a crucial step in achieving success in the system. With Egypt and Kenya, two major economies in COMESA for both sending and receiving cross-border payments, in the final phases of going online in the REPSS system, success is not far off.

Full deployment of an infrastructure

In a region like SADC, which has established a regional infrastructure for both high-value and low-value payments, success means the full deployment and operation of the infrastructure in all participating countries. This means that all payment schemes are introduced on time or ahead of schedule and that they are available for all participating member states to use. A major key to this has been the inclusive nature of the development process among all

participating countries. Each SADC member state established in-country working groups that cooperated with local stakeholders and with the SADC Banking Association to ensure that local needs were expressed in the wider SADC community while developing the SADC scheme. The RTGS system has already gone live in seven SADC countries, and the first SADC credit transfers became available in October 2014, with direct debits to follow in 2015. It will be seen as a major success if each participating SADC country implements these schemes on time or ahead of schedule.

Full migration and compliance with regional scheme

For non-voluntary payments integration that replaces domestic payment schemes, success is defined by full migration and compliance with the regional scheme. In SEPA, success was quantitatively measured by the migration rates of payment types from national ACH schemes to the SEPA scheme. All SEPA ACHs were required to send monthly reports to the European Central Bank (ECB) detailing the total amount of credit transfers and direct debits processed that month as well as the number of SEPA credit transfers and SEPA direct debits they processed. The difference between the two numbers made up the official SEPA migration rates published by the ECB each month. While the published numbers only included clearing house volumes (and thus did not include bilaterally exchanged ACH payments), the numbers published by the ECB gave an accurate picture of migration rates as the migration end date approached (and was later extended for 6 months due to insufficient migration numbers). Although there are still some minor issues with differences in the implementation of the SEPA standards, SEPA can be deemed a success now that all national volumes have migrated to the SEPA scheme.

Where has success been achieved?

It is difficult to judge such a disparate grouping of regional payment systems by a single set of criteria. Each region that pursues payments integration has their own idea of success and how to achieve it based on local realities. But after examining the success factors for all nine systems, it is possible to chart the progress each region has made in pursuing their own integration project.

Region	Level of integration	Achievements	What needs to be done
SEPA	Very high	Full migration of national payment volumes into SEPA schemes	National differences in implementation of SEPA standards need to be fixed
WAEMU	Very high	All ACH payments in WAEMU are compliant with framework and standards developed by BCEAO	Increased usage of electronic payment methods by WAEMU citizens
IPFA	High	Developed governance structure and created rule-sets for member organizations that have also been used by other geographies	Wider membership and higher volume
COMESA	Medium-high	Participating COMESA countries are connected to REPSS system and are sending cross-border payments through the system	Increased volume and membership in REPSS (Egypt and Kenya in final phases of going online)
SADC	Medium-high	Have developed centralized RTGS and ACH infrastructures and standards among members	Finalize testing phase for CT, implement DD payment stream
SML	Medium	Have eliminated the need for USD conversion between BRL and ARS for Brazilian and Argentinian banks and businesses	Increase volume of SML transactions
NPA	Low-medium	Have begun developing common technical standards based on ISO 20022 used in SEPA	Implement common standards, develop common infrastructure
ASEAN	Low	Preliminary talks on discussing common RTGS protocols for ASEAN states; linking of select ASEAN ATM networks	Finalize and implement shared RTGS standards; move on to low-value payment interoperability
WAMZ	Low	Development of domestic RTGS and ACH infrastructures in 4 out of 6 WAMZ member states	Interconnect domestic infrastructures in WAMZ states; unite member states under common platform

Ranking overall “success” across these different systems is a more complicated endeavor. Payments integration is never pursued in its own right; it is a means to achieving a larger goal. The real question any regional project must answer is not so much how to maximize

regional payments integration, but how to achieve its goals regarding regional political and economic integration.

One important factor that greatly affects overall success in different regional integration projects is the level of economic development in the region. This distinction becomes clear when comparing the levels of payment integration in SEPA and WAMZ. When the SEPA project began, each participating country had an established domestic payments system, whereas in WAMZ, 4 out of 6 member states needed to build domestic payment systems from scratch before integration could even begin. It is certainly fair to say that SEPA has seen more success than WAMZ in regional payments integration (owing both to this and a number of other factors), but it is difficult to develop an objective rubric to compare various regions that are pursuing payments integration under such different conditions.

Nevertheless, there are some factors that are absolutely essential to regional payments integration, and while the lack of such factors in any one region could be a result of a conscious decision by stakeholders to keep integration limited, the “success” of regional payments integration depends heavily on the following five categories:

Linkage of payments integration to a political goal

Successful regional payments integration projects develop as part of a larger political goal such as increased intra-regional trade, economic development, or financial inclusion and modernization. Strong political will at the member state level must be strong to ensure that the project is successful.

Common currency / common settlement currency

The chances for success in a regional payments project increase greatly when member states share a common currency. Having a common currency and central bank means that there is already a strong base of cooperation on monetary policy among member states, which makes developing a common payments infrastructure/scheme easier. In regions that do not share a common currency for domestic payments, choosing a common currency for settlement simplifies processes and increases chances for success.

Centralized governance structure

No matter how tight or loose a regional payments project seeks to be, it is absolutely essential to have centralized governance of any payments integration project. Bringing together payment system stakeholders from multiple countries is a complicated proposition that requires a central governance body that has the authority to make and enforce decisions related to the regional scheme.

Common data standard

Without a common data standard that all participants in a regional infrastructure or scheme agree to use, it is extremely difficult for banks, central banks, corporates, and other stakeholders to communicate with each other. This leads to inefficiencies and mistakes that can doom the project from the start.

Align the motivations of different stakeholders

When developing any form of regional payments integration, the different stakeholders involved need to be sure that their interests align so that the benefits of the project are distributed throughout the payments chain. Aligning these motivations can be accomplished through legislation, a common system design, or incentives that arise from the ability of stakeholders to see increased revenues through new products or services enabled by the system or through more efficient payment methods. The development of a regional payments scheme or infrastructure often comes at the expense of cross-border payment revenues for banks, so it is important to ensure that banks benefit in other ways, such as by seeing an overall increase in payments volume.

When comparing the nine systems examined in this report across these five criteria, it is possible to create a comparative ranking of overall success. While this may tend to favor systems pursuing tighter integration that are farther along in the process of regional cooperation, it provides a useful overview of the most successful regional payments integration projects from around the world.

The following chart shows a success ranking for each of the nine systems examined, across each of the aspects described above. Each system was evaluated on a scale of 0-4 (each point equaling a quarter of a pie). A score of four points (represented by a completely filled-in pie) means that a system has fulfilled the criteria of that category completely, three points means that the system mostly fulfills the criteria, two points represents partial achievement, one point represents minimal implementation, and zero points means that a system has not met or fulfilled the criteria of that category. The scoring for each system was based on information that came out of the executive interviews and desk research.

Region	Linkage to political goal	Common currency / settlement	Centralized governance structure	Common data standard	Stakeholder motivations aligned
WAEMU	●	●	●	●	●
SEPA	●	●	●	●	◐
SADC	◐	◐	●	●	◐
COMESA	◐	◐	◐	●	◐
IPFA	○	○	◐	●	●
NPA	◐	○	◐	◐	◐
SML	◐	◐	◐	◐	◐
WAMZ	◐	◐	◐	◐	◐
ASEAN	◐	○	◐	◐	◐

Source: Colin Adams & Leo Lipis

This rubric clearly favors the tightest forms of payment systems integration, which have occurred in WAEMU and SEPA, with SADC close behind. Looser forms of integration in WAMZ and ASEAN, both of which are also in the beginning stages of integrating various domestic payment systems, are seen as the least successful projects so far, but this may change as these integration efforts continue to make progress.

Conclusion

Success can be defined in different terms in each regional payments area. On a technical and business level, implementing common standards or a common infrastructure that operates as planned can certainly be deemed a success. But no regional integration effort sees the execution of a cross-border payment as the end goal. The expansion of intra-regional trade, the use of modern non-cash payment methods instead of cash cheques, economic development, and increased financial inclusion are all goals shared by many payment systems in both a domestic and regional context.

Ultimately, the one thing the regional initiatives in this study have in common is the goal of more efficient or increased trade or economic development. However, it is difficult to measure the direct effect that regional payment systems integration has on this success factor. The development and implementation of a modern regional payments infrastructure is certainly a success, but regional payments integration does not end when a system goes online. It is an ongoing process that requires continued commitment from politicians, regulators, bankers, businesses, and consumers to ensure that the less quantifiable goals of regional payments integration can be achieved.

Key features of cross-border payment schemes

In looking at various regional payment integration schemes around the world, it is clear that each case is unique. But that does not mean that there are not similarities between disparate regional initiatives. Below are some of the key features we uncovered through our research and interviews.

- Common currency for settlement
- Targeted scope
- Existence of single settlement system
- Existence of domestic payment system
- Common data standards
- Similar rule sets and IT infrastructures
- Significant or growing intra-regional trade

Common currency for settlement

Some regional integration projects involve uniting multiple countries that already use the same currency domestically. As in SEPA, whose member states use the euro and WAEMU, whose member states use the CFA franc (XOF), the use of a common currency in each country makes the choice of a settlement currency in a regional payments system easy. But most regional payments integration projects feature various countries that have different domestic currencies, which can complicate the issue of which currency to use to settle regional cross-border transactions and how to deal with F/X for individual transactions.

There is more than one approach to dealing with a regional payments scheme featuring multiple currencies. In SADC, the South African rand (ZAR) is used as the settlement currency for the SADC payments infrastructure. The ZAR is the currency of South Africa, the largest economy in SADC, as well as in 3 other SADC member states. In addition, 80% of intra-SADC trade is conducted in rand, and Bankserv, the operator of South Africa's domestic payments system (which uses the rand for settlement), will be the initial operator of the SADC system. After consulting with all participating SADC member states, it was agreed that it made sense to use the ZAR as the initial settlement currency in the SADC system.

In other regions, a third currency is used for settlement, usually a widely traded international currency such as US dollars. The REPSS system in COMESA settles payments in both USD and EUR (although the majority of volumes in REPSS are made in USD). A currency like the USD is widely available on foreign exchange markets, and there is more often a direct exchange rate between the currencies of western Africa or Latin America and the USD than among each other. This increases the liquidity of the market for all currencies, as one merely needs to convert to and from USD if both currencies have a set exchange rate with the USD.

There are, however, examples of regional initiatives that explicitly avoid using a third currency such as the USD. The SML agreement between Brazil and Argentina does not use the US dollar to convert payments from one currency into another. Instead, the Argentine and Brazilian central banks set an ARS-USD and BRL-USD exchange rate for local currency transactions based on wholesale US dollar exchange rates. This eliminates the fees paid by commercial banks to convert from ARS into USD and BRL into USD and vice versa. It does

however bring about exchange rate risk for payments made over the course of months. And the reality for most importers and exporters who do business outside of their own country is that many goods and services are priced and traded in USD. Nevertheless, lessening the reliance on US dollars and other internationally traded currencies can reduce dependence on foreign exchange markets and lead to efficient conversion between local currencies within a regional payments agreement.

One exception to the models pursued in other regions can be found in the plans for a centralized infrastructure as part of the Nordic Payments Area. The NPA system would include a multi-currency element that would allow payments in any Nordic currency to be processed in one central system. Plans for the NPA infrastructure are still in the early stages and are currently focused on harmonizing technical standards in each NPA country, so the details of the multi-currency function are not yet available. But it is believed that adding the multi-currency element on top of a new system would not be too difficult. Transactions in each currency would automatically flow to the central bank settlement system in the issuing country.

Targeted scope (CT, ACH-only, card switching)

Of all of the regional payments projects we observed, most target only certain payment streams at the outset. This applies to voluntary, loose cooperation such as the IPFA to mandatory, tight cooperation as in SEPA. In order to form a sound basis for expanded payment integration in a regional setting, it is important to begin with a limited set of payment streams to establish a foundation on which other payments can migrate to in the future.

In SEPA, all low-value credit transfers and direct debits denominated in euros have to follow the rules and guidelines set by the European Payments Council. Other payment instruments, such as card and cheque payments, do not fall under the SEPA schemes. The project of migrating low-value ACH payments in the European Union was a daunting task in itself. Had European stakeholders also tried to tackle card and cheque payments at the same time, the SEPA project would have become much more complex and difficult to implement. But that does not mean that other payment streams will remain outside of SEPA indefinitely. Groups such as EPAS and the Berlin Group are already working with other European stakeholders in defining SEPA messaging standards for card payments in an effort to bring all European card transactions under the SEPA banner.

A similar approach is being taken in SADC. The system will only process low-value cross-border credit transfers at first, but is set to bring direct debits into the system shortly thereafter. The logic is that if all participants can work together and implement one payment stream, it will be easier to bring additional streams into the scheme later.

Existence of single settlement system

In instances where a single infrastructure is used by multiple countries in a regional scheme, it is important to unify cross-border transactions under a single settlement system. The SADC countries developed a new RTGS infrastructure as part of their payments integration project, and SEPA developed TARGET2 as a centralized Europe-wide RTGS infrastructure to replace the decentralized TARGET system that interlinked 16 national RTGS systems. In COMESA, the Bank of Mauritius acted as settlement bank for all REPSS transactions. In all of these cases, the adoption of a single, centralized RTGS system for all cross-border

transactions (either a new, common infrastructure or choosing an existing infrastructure to be used by all) is a key characteristic.

As mentioned above in the “Common currency for settlement” section, the NPA’s long-term plans involve a centralized infrastructure that would process multiple currencies in a cross-border environment. This will probably involve a separate settlement system for each currency being processed, most likely at the central bank settlement system in the country that issues the currency. Today, this remains a long-term vision, as all current efforts to develop a Nordic Payments Area are focused on harmonizing technical standards in each Nordic country.

Existence of domestic payment system

Many of the regional projects observed in this report involve countries that already have domestic payment systems. This is the case in SEPA, NPA, IPFA, and SML. But some regional blocs include countries that lack a domestic retail payment system and sometimes even an RTGS system. In these cases, member states have either invested in the development of domestic systems or they have not joined the regional payment system. 4 out of 6 WAMZ countries have implemented domestic RTGS and low-value payment systems to enable interconnection within WAMZ. In COMESA, participation in REPSS does not include all COMESA members, some of which lack the capabilities to connect to REPSS. As member states have modernized their domestic payment systems, participation in REPSS has grown.

One exception is SADC, which developed a SADC-wide payments infrastructure that is completely separate from domestic payment systems in each member state. The fact that some SADC member states lacked modern domestic payment systems did cause some difficulties in developing the SADC infrastructure, and some SADC members that have joined the regional system are now developing domestic infrastructures. But other examples of regional payments integration such as COMESA and SML, as well as the planned integration efforts within ASEAN, require the existence of domestic payment systems that can connect to a regional infrastructure or interact with other domestic systems through a set of common standards.

Common data standards

It is essential that participants in any payment system (domestic or regional) share a data standard to enable seamless and efficient communication. Particularly when payment messages involve interaction between a domestic payment system and a regional system (as in COMESA), common data standards are important to ensure that there are no technical issues that slow down or prohibit messages from being sent or received. Having the same data standard can also enable straight through processing (STP), which can increase the speed and reliability of payment messages. More detailed information on this topic can be found in the next chapter.

Similar rule sets and IT infrastructures

A comprehensive set of rules and guidelines that cover all issues related to payments are another key feature of regional payment integration projects. It is also essential that the rules in place are deep enough to ensure a consistent implementation across all participants in the system. SEPA has seen some countries develop “national flavors” of the SEPA standards due to the flexibility given to stakeholders in implementing the SEPA standards. This is something that the EPC and others are looking to address now that full migration to

SEPA instruments has been achieved. It is always more difficult to ensure consistent implementation of rules and standards in a regional scheme as opposed to a domestic scheme because there are a wider variety of stakeholders involved, many of whom have been following different rules and business practices for years or decades. But it is very important to develop regional rules and business guidelines in a comprehensive and detailed manner to ensure that different stakeholders from different countries are on the same page.

Where new infrastructures need to be developed (either domestically or across the entire region), having similar IT infrastructures is an important step to ensure compatibility among all stakeholders. The WAMZ states that had to build domestic payments infrastructures (The Gambia, Sierra Leone, Guinea, and Liberia) all used the same solution provider for both the RTGS and ACH systems. These IT infrastructures were also closely related to that of Nigeria, which slightly re-engineered its RTGS infrastructure to aid compatibility. While still a work in progress within WAMZ, the use of common IT providers and software in domestic systems can take away some of the difficulties of interconnection within a regional payments agreement.

Significant or growing intra-regional trade

While not a key feature of a payment system itself, the regions examined in this report have all been spurred to action in some form or another by a desire to increase or simplify intra-regional trade. This is true for more developed regions such as SEPA, in which countries shared a common currency but still had to pay fees for cross-border transactions with other countries in the Eurozone, as well as for WAMZ or COMESA, both of which are in regions where growing trade and economic cooperation was hindered to some degree by informal trade links, slow payments due to the need for multiple correspondents between two businesses, or a complete inability to send money from one country to another. Regional payments integration is not an end in itself. It is an enabler of greater economic and trading ties between neighboring states in both the developed and developing economies of the world.

The role of standards in regional payment schemes

Data standards enable communication between and within different organizations. Having a common data standard enables different stakeholders to seamlessly communicate with one another, whereas trying to send messages between organizations that do not share a data standard requires the use of conversion software or manual reconciliation of payment messages. This can lead to slower payments and processing failures that can result in lost or rejected payment messages.

Regional payments integration requires a common data standard that enables different stakeholders in separate countries to interact with each other in an efficient and reliable manner. Even in cases where different member states in a regional project maintain legacy or proprietary standards in their domestic systems, the connection to a regional payments infrastructure needs to take place in accordance with a common set of technical and business rules. The more integrated data standards are between different countries and stakeholders, the more feasible it is to truly integrate payment systems and enable faster processing and fewer rejected messages.

ISO 20022

As international payments increase in frequency and interaction between different domestic payment systems becomes more common, the proliferation of different data standards has become a difficult issue for payment system participants around the world. The lack of a common “language” in which central banks, commercial banks, and corporates can communicate is an issue that has received more attention in recent decades. One of the most prominent efforts to develop a common standard that can be used for financial messaging is ISO 20022, a standard that is used in some regional payment projects around the world.

ISO 20022 is a financial services messaging standard that was developed within the International Organization for Standardization (ISO). The standard seeks to become a universal messaging scheme for the financial industry worldwide. Based on eXtensible Markup Language (XML), ISO 20022 is not as rigid and prescriptive in its design as other standards. ISO 20022 messages are open and extensible, which means that existing messages can be revised (either in length or in meaning) and that new messages can be proposed and approved by the ISO 20022 organization itself, which is made up of bodies that review the technical and business justifications for new and existing messages.

ISO 20022 messages have also been mapped to existing messaging standards that are widely used in various geographies, meaning that conversion from one of these standards to ISO 20022 (or vice versa) has been made easier. While ISO 20022’s openness and flexibility have essentially created myriad versions of the standard around the world, the end goal of those who use or have decided to use the standard is seamless interoperability between different countries and regions that use ISO 20022.

The most well-known implementation of ISO 20022 to date has been in SEPA, which is also the most prominent example of regional payment systems integration. The choice to use ISO 20022 in the SEPA region was motivated by a number of factors. Perhaps the most notable of these was the fact that ISO 20022 is a politically neutral standard. In a region seeking to unite 28 national payment systems under one scheme, choosing one country’s

data standard and making every other country migrate from their legacy standards would give the country whose data standard is adopted an unfair advantage over others. Using a global standard like ISO 20022 that every country in the region can help develop levels the playing field for all participants.

The fact that ISO 20022 is increasingly being adopted around the world also makes the standard attractive for both national and regional payment systems alike. The standard has already been implemented in SEPA, Japan, Denmark, and the UK (for account switching), and Canada, South Africa, SADC, Australia, and Switzerland are in the process of adopting the standard. There are also countless geographies around the world that have either partially implemented ISO 20022 or have mapped their proprietary standard to ISO 20022 to enable interoperability. As more and more countries and regions adopt ISO 20022 for payments messaging, the standard becomes more attractive to geographies that are building new infrastructures or migrating from a legacy standard. The use of ISO 20022 in major markets such as SEPA also means that many large banks and corporates can send and receive ISO 20022 payment messages, which makes it even more beneficial for regions (such as in western and southern Africa) that are looking to open up their economies to global markets. Developed markets are being drawn to the standard due to increased adoption of ISO 20022 around the world. The Nordic countries are in the process of developing technical standards for the NPA that are based on the SEPA ISO 20022 standards due to the deep economic integration between the two regions.

Another major motivating factor in implementing ISO 20022 is that it is a modern, extensible standard that can be shaped as payment practices evolve. While most countries and regions that have adopted ISO 20022 for payments have set limits on the amount of remittance data contained in each message, the standard itself theoretically sets no limit on the length of payment messages. Should a geography require additional information, the length of ISO 20022 messages can be expanded or the information can be added in a so-called additional option service (AOS), an add-on to payment messages in ISO 20022 that can be embedded in the message. And the fact that new messages can be added to the ISO 20022 repository means that the standard is capable of evolving as new capabilities are needed (this was the case with generic account switching messages that were proposed by UK stakeholders when they adopted ISO 20022 for the country's Current Account Switch Service).

SWIFT MT messages

While ISO 20022 may be the latest global standard in use around the world, it is not the only international messaging standard we observed in our research. SWIFT MT messages have long been in use globally for electronic payments, and the regional projects in this study are no exception. This is particularly true in western and eastern Africa, where SWIFT has played a major role in helping develop modern payment infrastructures. In WAMZ, each of the 4 new domestic payment systems that have been developed to spur the regional integration between WAMZ countries uses SWIFT messaging. SWIFT messaging is also widely used in the neighboring WAEMU region for high-value payments. Banks in WAEMU member states utilize SWIFT messages to interact with the STAR-UEMOA RTGS system.

The same is true for the COMESA Clearing House (CCH), which owns and operates the REPSS system. Each COMESA central bank that sends messages to the CCH uses MT 202 or MT 103 messages to the BIC address of the CCH. The use of SWIFT messaging in COMESA and

elsewhere is a result of the widespread use of SWIFT standards, which means that new countries that join a regional system do not also have to adopt an entirely new messaging standard in order to participate.

Conclusion

Data standards play a vital role no matter what form of payments integration a region decides to pursue. A common data standard allows for quick and efficient messaging between banks, regulators, central banks, and corporates, which enables straight through processing of cross-border payment messages. Integrating data standards between countries, whether using ISO 20022, SWIFT messages, or another standard, is one of the first steps toward integrating domestic payment systems in a regional scheme or infrastructure.

Enablers

Establishing successful regional payments integration relies on a number of enabling factors that stakeholders should focus on when developing a regional scheme or infrastructure.

These enablers include:

- Ensuring widespread involvement from a range of stakeholders
- Cooperation from the banking industry
- Regulatory pressure
- Strong political will
- Looking at lessons from other geographies and bringing in outside experts
- Ensuring common standards and solution providers when possible
- Existence of modern IT platforms within banks
- Limiting participation in an infrastructure to certain stakeholders

Some of these enablers may be more or less important to a regional group depending on the model of integration chosen, but most of those listed below are relevant to most payments integration models.

Widespread involvement from range of stakeholders

When developing a regional payment system, it is important to ensure the involvement of a wide range of stakeholders from the outset. This includes regulators, commercial banks, central banks, government officials, software providers, and other participants in the payments value chain. Ensuring such widespread involvement requires a central coordinating body that can bring different perspectives together and even act as a forum where various stakeholders can express their views on how payments integration can and should occur.

The work of the SADC Banking Association was integral in bringing about coordinated and efficient regional integration in southern Africa. Acting as a central body where both public and private sector actors could come together and share ideas on how the SADC payments infrastructure was to be developed, the SADC Banking Association also worked closely with regulators in SADC member states to divide up responsibilities in developing the SADC payments schemes. The SADC Banking Association also coordinated in-country working groups in each of the 10 SADC member states that joined the payments scheme. The working groups ensured that local knowledge could be utilized to ensure that each country had its voice heard. Each working group then reported to the SADC Banking Association, allowing for an optimal balance between local knowledge and a centralized body that coordinated the different local issues and concerns. The result was a payments infrastructure for which every member state and stakeholder group (banks, central banks, software providers, corporates, etc.) had a say.

One issue that can arise from a lack of widespread involvement among stakeholder groups is apparent in COMESA. There, the REPSS system was developed by central bankers for central bankers. Commercial banks access REPSS through their respective national central banks, but they were not as deeply involved in the development of the system. The result has been that commercial banks in COMESA member states are reluctant to recommend the system to their customers because they have a vested interest in the correspondent banking relationships that the REPSS system is intended to reduce. Had the commercial banks been

consulted when the system was being developed, it is possible that some of these concerns could have been allayed, resulting in larger volumes than the system sees today.

Cooperation from the banking industry

Commercial banks serve as the gateway to payment systems for consumers and businesses. As such, the success of regional payments integration often depends on the ready cooperation of the banking industry. Banks are in tune with what customers need and want from a payments system, and have developed internal IT infrastructures to process payments. Simply put, banks know payments, and any efforts to change a domestic or regional payment system will also entail changes within banks.

Commercial banks in Europe were integral to the development and implementation of the SEPA scheme. After European regulators prohibited banks from charging more for intra-EU cross-border payments than for domestic payments, the banking industry came together and created the EBA's STEP2 system for processing pan-European euro-denominated payments. They also established the European Payments Council, which created pan-European schemes for credit transfers, direct debits, and card transactions. While they were certainly spurred by regulation, banks recognized a commercial need to reduce costs in cross-border payments and set about developing a solution that would make the SEPA vision a reality.

Support from the banking industry was also crucial in the development of the NPA, SADC, and the IPFA. Nordic banks, which had also taken part in the EPC's scheme development in SEPA, were the first stakeholders to come together and sketch out a high-level vision for the Nordic Payments Area, and have already begun modifying internal IT systems to enable compatibility in the region. The SADC Banking Association worked closely with regulators in SADC member states to define areas of responsibility during the development of the SADC regional schemes and infrastructures. And the IPFA arose out of a commercial need identified by banks and payments processors who wanted to create a way to enable more efficient, faster, and lower cost international payments.

Regulatory pressure

As important as cooperation from commercial banks is, regulatory pressure is a deciding factor in some regional schemes. Regulators played a vital role in SEPA. The task of uniting 28 different countries, almost all of which already have modern and entrenched national payment infrastructures and schemes, under a single Europe-wide scheme would not have been possible without a push from politicians and regulators alike. The task of developing technical standards, business rules, and even technical infrastructures for all euro-denominated transactions met much resistance in EU member states, and it was not an easy process even once the decision to create SEPA was finalized. Simply allowing the member states to work it out among themselves or letting the market completely dictate how SEPA would develop very likely would have resulted in a failed or greatly slowed project. The push given by regulators actually created a commercial incentive that led to the creation of SEPA schemes, and ultimately to migration from national standards to the pan-European SEPA standards.

Need for strong political will

While it may seem to some that integrating payment systems in a region that seeks to increase trade and modernize their economies naturally makes sense, there could be a number of stakeholders in each country who see things differently. Whether it is banks that receive revenues from correspondent banking fees, regulators that are more concerned with the domestic situation than with regional cooperation, or simply corporates and consumers who do not see how regional integration would benefit them, there are many reasons why a seemingly ideal situation for regional payments integration may fail to take shape. This is why strong political will in the countries involved in a regional payments project is essential to ensuring the success of regional payments integration.

A look at West Africa illustrates this point. WAEMU and WAMZ have similar ambitions, with two different results. The 8 WAEMU countries are united under the Central Bank of West African States (BCEAO) and share a single currency. WAEMU has modern regional infrastructures for RTGS, ACH, and card transactions. The robust governance structure under the BCEAO has enabled tight payment system integration among WAEMU member states. While the neighboring WAMZ states have a similar long-term vision for payment systems integration, the region lacks an institution that is empowered to nurture this vision. An attractive vision and modern technology on a domestic level is not enough without strong political will to promote the development of a regional scheme or infrastructure.

Look at lessons from other geographies and bring in outside experts

There are a number of different forms that regional integration initiatives can take, and the realities of the member states involved in any regional project mean that all such initiatives are unique to the geographies being served. However, there is much that can be taken from other geographies that have pursued similar projects already. This can include messaging standards, back-office infrastructures, rulebooks, operational guidelines, business practices, and software. While all regional projects need to take into account local realities, there is no need to reinvent the wheel when it comes to payment system integration. When developing the centralized infrastructures for the SADC region, stakeholders in southern Africa looked to SEPA and to the work of the IPFA to see what they could use from those projects. The low-value system in SADC will also re-use some of Bankserv's infrastructure used for the South African domestic system. For its part, the IPFA has made its rule sets and standards widely available and encourages other regional projects to use them, in part to encourage widespread global interoperability of ISO 20022.

Bringing in outside technical and business experts can also be crucial in providing the knowledge base needed for regulators, bankers, corporates, and others to understand the value that payments integration can bring. Without a thorough explanation of technical and business rules, discussions about payments integration can degenerate into confusion about what a regional infrastructure or scheme can or should accomplish. Once stakeholders know what is possible and how a scheme actually works, they can focus on strategy and on how a regional scheme can benefit everyone. Outside experts were brought in during the development of the SADC infrastructure to make sure that those involved in creating the SADC schemes were clear about what it is they were doing and what would be possible in the new system.

Ensure common standards in regions where countries need to build new national payment systems from scratch (and common solution providers when building new infrastructures)

In some regions, certain member states need to develop new national payment systems before being able to connect to a regional infrastructure. In the case of a region where multiple countries need to “start from scratch” with domestic payments, ensuring common standards, software, and solution providers can be greatly beneficial to the regional project as well.

4 out of 6 member states in WAMZ (The Gambia, Sierra Leone, Guinea, and Liberia) needed to implement domestic payment systems before being able to integrate with Ghana and Nigeria, the 2 WAMZ states that already had modern domestic payment systems. For both the RTGS and low-value ACH systems implemented in the 4 countries, each member state used the same solution provider to ensure similar infrastructure and compatibility. Nigeria also re-engineered its RTGS system to be more closely related to the new payments infrastructures in WAMZ. And each of these systems uses the same SWIFT message standards, thus further enabling future interoperability.

Existence of modern IT platforms within banks

Modern IT platforms within banks enable the flexibility to adjust to future requirements at a lower cost than with older infrastructures. This enables efficient and cost-effective change processes that allow for the swift introduction and development of new or improved products. In the Nordic Payments Area, the introduction of modern platforms based on the SEPA ISO 20022 standards have been particularly important for large banks, which all operate in multiple Nordic countries. As Nordic banks and large corporates are integrated both internally among other Scandinavian countries as well as with the global economy, having a flexible and modern platform makes it easier for banks to meet the needs of its customers as well as help innovate and add or improve services and products as payment demands evolve.

Keep direct participants limited to central banks to simplify the need for a robust regulatory framework

For initiatives that seek to connect varied domestic systems with one another (as opposed to a unified central infrastructure), limiting the direct participants in the system can help simplify the need for a robust regulatory framework. In COMESA, national central banks are the only direct participants in REPSS, meaning that commercial banks initiate REPSS transactions via their respective national central banks. Limiting direct participation in REPSS to central banks meant that the system rules did not have to include controls and procedures that would otherwise be needed if commercial banks were allowed to directly participate. This lesson does not apply to all regional infrastructures (such as SEPA, SADC), but for some forms of cross-border payments integration, it can simplify and ultimately enable increased cross-border volumes.

Disablers

There are also a number of disabling factors that can hinder successful regional payments integration. Disablers include:

- Different levels of payment system sophistication within a region
- Lack of uniformity in standards implementation
- Using a third currency for settlement or conversion
- Not involving all stakeholders
- Lack of modernized internal infrastructures within banks
- Relying on voluntary migration to a system after it is developed
- Having too much inclusiveness within a regional organization
- Focus on regulatory compliance instead of innovation within banks
- Unreliable energy supplies and telecommunication networks

As with the enablers, not every disabler listed here is necessarily relevant to each integration model outlined in this report.

Varied levels of payment system sophistication in region

One of the key disablers that is common to many regions in this study is the varied levels of payment system sophistication between different countries within a single region. This is particularly apparent in Africa, where SADC, WAMZ, and COMESA all have had to deal with the reality of some member states having modern payment systems, others having less advanced payment systems, and some having to build entire infrastructures from scratch due to a lack of any system at all. While there are similarities between these different regions, their approaches differ.

The SADC region features one of the largest discrepancies between member states with very modern payment systems and member states with no ACH infrastructure at all. The solution in southern Africa has been to build an entirely new centralized infrastructure that is used by all participating SADC states and which is independent of any domestic payment system. The SADC members who jointly developed the systems (both an RTGS and low-value payment system) saw it as inefficient to add over a dozen new ACHs to process cross-border payments, so they worked together to develop harmonized rules, processes, standards, and governance structures to use in a single centralized infrastructure.

The REPSS system in COMESA operates in a different manner. REPSS is a voluntary system that enables cross-border payments among participating COMESA member states by linking each national central bank to a central hub. Commercial banks make payments in REPSS through their national central banks, and the system is based on SWIFT messaging. The limited amount of participants and the use of SWIFT standards is meant to make it easier for new COMESA members to join the system without having to make significant changes to business processes or data standards.

The 6 countries in WAMZ also seek to use a hub-and-spoke approach, with the eventual goal of uniting all payment and settlement systems under a unified central bank. At the outset of the project of integrating payment systems in WAMZ, only 2 of the 6 countries in the region (Nigeria and Ghana) had modern domestic payment and settlement systems. The other 4 countries (The Gambia, Sierra Leone, Guinea, and Liberia) have all developed domestic

systems that will eventually interlink with each other via the use of common standards and IT infrastructures.

Lack of uniformity in standards implementation

The development of regional standards enables interoperability between banks, payment processors, and corporates in different countries. The development of a common language through standards can be a difficult process that requires centralized management, broad inclusion of stakeholders, and a coherent vision for payments integration. But developing a standard is not enough. Stakeholders need to implement a common standard in a uniform manner.

The ISO 20022 standards used in SEPA for credit transfers and direct debits were developed by the EPC with input from a wide range of European stakeholders. However, there have been variations in how banks and ACHs in different EU countries have implemented the SEPA standards, which has led to problems with interoperability. Now that migration to SEPA schemes is complete, regulators and other stakeholders in Europe can begin to modify the standards to ensure uniform implementation. The task of creating deep enough rule sets that enable uniform implementation is difficult even in a domestic environment. When bringing together different domestic schemes under a regional scheme, it may be necessary to leave room for variation in the initial implementation of a regional standard. But too much variation can lead to a fragmented payments environment, which is incompatible with the principle of regional payments integration.

Using a third currency for settlement or conversion

Most forms of payments integration occur in regions that do not share a common currency. This carries the challenge of deciding on a settlement currency. In SADC, member states have chosen to settle all payments in ZAR due to the fact that 80% of all cross-border transactions in the region are made in SA rand and because it is the domestic currency of four SADC member states. But some regions do not have the advantage of a strong domestic currency among its members. In this case, a third currency that is widely available in F/X markets, such as the US dollar or euro, is typically used to settle transactions. Despite the fact that the market for such currencies is very liquid, using a third currency has a number of disadvantages.

Chief among these disadvantages is speed and cost. Converting between two currencies using a third currency such as US dollars involves two conversions with a US-based bank, which means paying two separate F/X spreads as well as any applicable fees. The need to use a foreign bank also means that the transaction will take longer to settle and thus the beneficiary will have to wait longer to receive the payment. The SML agreement between the central banks of Brazil and Argentina is a direct response to this issue. Instead of converting from ARS to USD and then from USD to BRL (or vice versa), the central banks have established an ARS-BRL exchange rate based on each currency's wholesale USD exchange rate. This allows the Argentinian and Brazilian central banks to clear and settle payments between the two currencies without converting into US dollars first, thereby enabling importers and exporters in Argentina and Brazil to make or receive payments in their local currency much faster and at lower cost than through traditional correspondent banking channels.

The use of a third currency for settlement in a regional payments scheme also brings with it the potential liability of sanctions from foreign countries. The political stance of the country that issues the third currency used for settlement then becomes an issue. If that country decides to sanction or cut-off one or more participating countries in a regional payments scheme, it could threaten the success of the entire project. Avoiding the use of a third currency for settlement can also help promote one of the native currencies in a scheme, which is an important step toward financial independence. Cross-border trade within WAEMU using the CFA franc has helped strengthen that currency, and some see this as a way forward for WAMZ. Even if the WAMZ states do not establish a common currency for the region, choosing one of the WAMZ domestic currencies could help strengthen trade and local economies in the region.

Despite its potential disadvantages, the use of a third currency for settlement is seen as the best choice for COMESA. The choice to use US dollars and euros as the settlement currency for REPSS is the result of a lack of trust in local currencies for settlement. The system is also designed to make it as easy as possible for new countries to join, and access to US dollars and euros on financial markets is much greater than it is for any local currency in Eastern and Southern Africa.

Not involving all stakeholders

In the process of developing a regional cross-border payments system, it can be easy to overlook the vested interests commercial banks have in correspondent banking relationships. Absent a payments infrastructure or agreement between different countries, commercial banks send cross-border payments using correspondent banks. Banks that provide correspondent banking services receive revenue streams from these relationships that are integral to their business plans and operational models. When developing a regional payments infrastructure, it is important to keep this in mind, as the involvement and cooperation of commercial banks can be integral to ensuring sufficient volumes for the regional system.

A look at two of the enablers from the previous section, widespread involvement from a range of stakeholders and cooperation from the banking industry, illustrate how essential it is to ensure broad cooperation between regulators, commercial banks, central banks, and other stakeholders in a region.

Lack of modernized internal infrastructures within banks

Integrating payment systems within a region is not just about the establishment of technical standards and business guidelines for the community as a whole. It also requires modern internal platforms within banks to process payments quickly and efficiently. It can also lower costs for banks, as changes to a payment system on a macro level are more expensive to implement if a bank's internal payment system is older or out of date.

This has become a focus for banks in Denmark, Norway, Sweden, and Finland as they seek to establish the Nordic Payments Area. Nordic banks are implementing ISO 20022 internally both to be interoperable with SEPA and to enable flexibility for future requirements. This is particularly important for multi-country banks such as Nordea or Danske, which have a significant presence in all 4 Nordic countries. The NPA vision of creating a centralized multi-currency infrastructure for the region would not be possible with outdated internal

infrastructures, which is why Nordic banks need to first concentrate on adopting modern standards and technical infrastructures internally before moving forward with the project.

“Build it and they will come” model unlikely to lead to success

The vested interests of certain stakeholders is not the only obstacle that can lead to slow uptake of a regional payments system. Sometimes, a lack of marketing or the absence of sufficient information on a new system can lead to domestic players being unaware or indifferent to a regional payments infrastructure. In COMESA, the stakeholders involved in developing the REPSS system were surprised to see such low uptake once the system went online despite the fact that the system worked efficiently and provided real value to users. They came to the realization that the system had not been properly marketed to stakeholders and users at the member state level to explain how the system works and the value that it provides. It was assumed that if a quality system existed for cross-border payments, people at the state level would begin using it. But if people do not know how a system works or that it even exists, they will be reluctant or unwilling to use it.

Too much inclusiveness within a regional organization

Regions that pursue payment systems integration among its members range from smaller constellations with a few members (such as WAMZ) to large groups that include most countries in an entire continent (such as SEPA). Most regions that are working together on payment schemes and projects fall somewhere in the middle. But regardless of how many member states belong to a regional organization, it is important to maintain a balance between focusing on the members themselves and cooperating with countries and regions abroad.

ASEAN is very inclusive in the work it does to spur political and economic cooperation in Asia. ASEAN’s pursuit of cooperation and integration extends beyond its 10 member states. Most notably, the ASEAN Plus Three group seeks to improve economic and political ties between ASEAN member states and China, Japan, and South Korea. The East Asia Summit, which typically follows ASEAN member meetings, extends the scope of cooperation even wider, including Australia, New Zealand, India, the United States, and Russia. This extends to payment systems cooperation as well. The Asian Payment Network, which seeks to establish common standards and guidelines to enable interoperability between ATM networks and low-value payment systems, includes non-ASEAN countries such as South Korea. While such cross-regional cooperation is welcomed by many, it also runs the risk of spreading an organization thin. In order to ensure effective payment systems integration within a region, preference should initially be limited to a small group of member states with a shared interest before expanding.

Banks focused on regulatory compliance instead of innovation

While some commercial banks have an interest in maintaining the status quo of correspondent banking relationships, many banks would actually benefit from more efficient methods of sending and receiving cross-border payments. The cross-border links provided within the framework of the IPFA are a means to provide quicker and more transparent cross-border transactions for commercial banks and their customers. However, following the 2008 financial crisis, many commercial banks have been almost entirely focused on regulatory compliance, often at the expense of innovative efforts in the cross-border space. As such, voluntary links such as the IPFA have not seen the type of uptake they expected because banks are not obligated to take part in its efforts. It is likely that a

regulatory push will be needed to enhance the efficiency of cross-border transactions in the absence of a mandatory regional initiative.

Unreliable energy supplies and telecommunication networks

In some parts of the world, unreliable energy supplies and telecommunication networks can create challenges for electronic payment systems. In West Africa, some WAMZ member states need to rely on back-up generators when the national grid cannot supply power. This can limit the efficiency of payments, which is a particular problem when processing increasing numbers of electronic payments or when another member state has to wait for the delay in processing to be resolved. Many urban and rural banks also rely on telecommunication networks to send and receive messages. When these networks experience problems, it can obstruct the processing of payment files and decrease the speed of electronic payments.

Best models for regionally integrated payments systems

Each regionally integrated payments initiative is unique, even if it shares similarities with other geographies. Domestic and regional realities vary around the globe, and not just in terms of economic development. Culture, history, natural resources, and other factors can strongly influence how tight or loose regional cooperation in payments is. Deciding on an optimal model for any region first and foremost requires deep knowledge and insight into local realities and any limitations – whether technologically, politically, or otherwise – that have to be taken into account when developing a regional payments scheme. But that does not mean that other regions should be ignored completely. Many regional integration schemes benefit greatly from knowledge of how other regions have implemented systems and schemes. What follows is an examination of the different models of regional payments integration from around the world.

Centralized payments infrastructure for both domestic and regional payments with full monetary union, non-voluntary participation

The tightest form of regional payments integration occurs when there is a full monetary union and unified and mandatory payments area within the regional area. In such instances, the domestic and regional systems are completely unified. Of the regions identified in this report, SEPA in the European Union and WAEMU in West Africa are the only two examples of this type of payment system integration.

The key feature of this model of payment systems integration is a single currency used by all member states in a region. The regional currency is issued by a single central bank, providing a centralized authority that serves all member states. The regional central bank typically plays a vital role in the payment system. In Europe, the European Central Bank (ECB) is in charge of the SEPA payment system, and the Central Bank of West African States (BCEAO) oversees the payment scheme and infrastructure in WAEMU.

But despite the centralized oversight within these regions, national central banks and other stakeholders also play an important role. Regional central banks or payment systems bodies established by the central bank or member states do not set rules and guidelines on their own. Coordination among member states is essential to ensure that a regional payments scheme is beneficial for all participating countries and stakeholders. This can be a long and difficult process. It took over 10 years to implement the SEPA project, and the project did not finish with the August 2014 migration end date. There are still a number of issues (for example, the “national flavors” of the SEPA standard that proliferate throughout Europe) that need to be worked out among the member states.

The existence of a monetary union is extremely helpful when developing this type of tight regional payments integration. Trying to institute a mandatory regional payment scheme between multiple currencies brings a level of complexity that is difficult to overcome without pre-existing deep economic integration (an example of one such region, the NPA, can be found in the next section). The level of cooperation already present in regions that share a common currency (cooperation between national central banks, cooperation between countries on monetary policy) is very high, which can be beneficial when establishing a regional payment scheme. Monetary unions already have a centralized governance body and central bank that is empowered to create and govern pan-regional rules, as well as coordinate with national bodies so that all member states have a voice in

the project. Trying to bring together a diverse group of stakeholders from different countries who do not have the same base of cooperation can make an already complex undertaking even more complicated and could hinder the chances of success before the project is even started.

Centralized payments infrastructure for both domestic and regional payments without a monetary union, non-voluntary participation

While the kind of tight regional integration found in SEPA and WAEMU currently only exists within a single monetary union, the stakeholders involved in developing the Nordic Payments Area are attempting to develop a centralized infrastructure among multiple currencies. The Nordic Payments Area (NPA) seeks to integrate the payment systems of Denmark, Norway, Sweden, and Finland into a regional central infrastructure that is also interoperable with SEPA standards (which Finland is already a part of). Planning of the NPA is still in the early stages, and the focus right now is on developing SEPA-compliant technical standards for the region and the modernization of internal IT infrastructures at banks. Replacing legacy systems with a centralized infrastructure is a costly initiative that has yet to be undertaken in full.

Creating a solution for multi-currency clearing and settlement would be the final step in the process, and it is unclear when that will occur. The Nordic countries have long shared deep economic cooperation and interaction between both corporates and consumers. But making the NPA vision a reality will require centralized management to oversee the project and ensure that stakeholders in every country are involved. A 2013 Nordic Payments Area white paper envisions a governance model similar to that of SEPA, where the European Payments Council was established by banks as a centralized body to develop pan-European schemes. Creating a centralized pan-Nordic body to develop rules and guidelines will likely involve coordination from each national banking association, which would ensure that national needs were expressed within the central governance body.

While the development of a multi-currency mechanism for the Nordic Payments Area is still far off, it is not seen as a significant obstacle to the project. The most difficult aspect of the NPA vision will be modernizing internal IT infrastructures within banks to be compatible with new technical standards based on XML and ISO 20022. Modern internal platforms provide the necessary flexibility for a new centralized infrastructure in the region. Multi-currency settlement will occur at the respective national central bank that issues each currency; so all payments in Danish kroner for example will flow to the Danish National Bank for settlement. But NPA's technical standards and business rules must first be created and managed by a centralized entity, and banks will have to modernize their internal infrastructures before this vision can be realized.

Centralized cross-border payments infrastructure for regional payments only

The next grouping of regional payments integration efforts involves a centralized payments infrastructure that is only used for cross-border payments. These infrastructures are non-mandatory and are not intended to replace domestic payment systems. Their purpose is to enable faster and more efficient cross-border payments and thereby stimulate intra-regional trade. These systems can either connect via a national central bank/domestic payment system (as in COMESA) or operate independently of any domestic system (as in SADC).

One major issue for this type of regional payment infrastructure is choosing a currency for settlement. One of the benefits of such systems is that they allow users (either consumers or businesses) to pay for goods or receive funds in their own currency within the context of a cross-border payment transaction. It would however be inefficient to establish currency-to-currency exchange rates for each individual currency in the regional bloc. It is thus necessary to choose a settlement currency for the cross-border system itself.

Cross-border settlement is typically done with a third currency such as US dollars that is not used domestically by any individual member states. The REPSS system in COMESA for example settles in both USD and EUR. The use of a third currency for settlement is beneficial because depending on the region, local currencies may be in short supply on FX markets, whereas currencies such as the USD and EUR are widely available. The use of a third currency can also be politically beneficial, as it avoids the problem of choosing a domestic currency within a region, which could be seen as too advantageous for the member state that issues the currency. But the use of a third currency also brings higher cost, slower payments, and it leaves countries liable to the issuing country's political stance on the region and its member states. Thus, some regions do opt to use the domestic currency of a regional member as settlement currency. The SADC RTGS system settles all transactions in ZAR, which is used as the domestic currency of 4 SADC members and is issued by South Africa, the largest economy in SADC. Most intra-SADC payment flows involve South Africa or another ZAR country, with 80% of SADC transactions being denominated in ZAR.

Another feature of these types of regional payment systems is that they are not intended to compete with or replace domestic systems. The SADC payments infrastructure operates independently of all SADC member state domestic systems. The REPSS system in COMESA interacts with domestic payment systems in so far as transactions are routed to REPSS via national central banks, which interact separately with commercial banks. But REPSS is not mandatory (even for intra-region cross-border transactions); it allows domestic payment systems to establish links with REPSS through their respective national central banks.

The REPSS model was developed in coordination with all participating national central banks, which are the only direct participants in the system. This central bank-only model is seen as beneficial because it reduces the need for a robust regulatory framework by simplifying credit risk procedures and mitigating the risk of settlement failures. The inclusion of commercial banks during the development of a regional cross-border payments scheme can be a key factor in driving volume into the new system. The SADC Banking Association worked closely with both commercial banks and central banks (along with regulators and corporates) in an effort to avoid this issue. The REPSS system could also benefit from increased marketing to consumers who may not be aware that they can use REPSS for cross-border payments within COMESA. Without widespread knowledge of a cross-border scheme among corporates and consumers, volume could lag when it goes online.

Interlinked domestic payment systems

Many regional integration efforts in the payments space do not involve a formal infrastructure. These initiatives are in effect voluntary agreements to link together different national payment systems under a set of defined rules and business practices to enable faster and more efficient cross-border payments. The goal of such agreements tends to be the same as with other regional integration efforts: to foster increased intra-regional trade and (in some cases) economic development.

There are many reasons why a region may decide to pursue a looser form of payments integration. In some instances, the domestic payment systems in different member states may be in different stages of development. In WAMZ, only Nigeria and Ghana had modern RTGS and ACH infrastructures in place, while the other 4 countries in the region (Sierra Leone, The Gambia, Guinea, and Liberia) had to build these systems from scratch. While the long-term goal within WAMZ is to unite all payment systems under a common banner (ideally under ECOWAS, which also includes WAEMU), the realities on the ground in WAMZ member states necessitated a different approach. With 3 out of the 4 WAMZ states having already implemented modern payments infrastructures (with the last set to go online in late 2014), it is now possible to interlink the domestic payment systems of all 6 WAMZ member states in order to enable faster and more efficient cross-border payments in the region and thereby increase trade and support further economic development, despite the lack of a single infrastructure used by all member states. However, it will be difficult to interlink these domestic systems without a centralized body with wide involvement from all WAMZ member states to develop rules and guidelines for cross-border payments in the region.

In the case of the SML agreement between Brazil and Argentina, the scope of the project is limited, so there is no need to replace domestic infrastructures with a regional system. The SML agreement allows Brazilian and Argentinian importers and exporters to send and receive funds in their local currency (ARS or BRL) with the central banks of each country settling the net difference periodically. As the participants in the system are limited to importers and exporters, and since each country already has established modern ACH and RTGS infrastructures, the stakeholders involved saw no need to pursue tighter integration and instead chose to link the domestic payment systems via each country's central bank.

The IPFA was developed by a group of banks and clearing houses in the United States and Europe who had previously looked into the idea of creating a kind of global ACH to bring about faster and easier cross-border transactions. The group came to the conclusion that a global ACH would be extremely difficult to develop, as the vested interests in correspondent banking relationships and the entrenched local standards and business practices in different countries were too big a hurdle to overcome. Instead, the group came together and created a governance structure, rule-making, and standards to enable more efficient low-value cross-border credit transfers between participating institutions. These standards are mapped to the different local standards to enable STP for cross-border transactions that use the IPFA format. The IPFA was set up out of purely commercial interest to enable lower cost in cross-border low-value payments, and the interlinked payment system model was determined to be the best method to enable this goal.

Conclusion

There are a variety of models that can enable faster, cheaper and more efficient cross-border regional payments. The model chosen by a particular region will depend on the realities on the ground, the level of payment system development in the region, existing levels of cooperation among members (including whether or not they share a monetary union), and the concrete goals regional members wish to achieve. One aspect that is evident among every successful model is the existence of a centralized management body with wide participation by local stakeholders to develop region-wide rules and standards for a cross-border scheme or infrastructure. Having a centralized body gives local stakeholders a single point of focus for all issues related to an intra-regional cross-border scheme. Wide participation also ensures inclusive scheme development, which can be integral to driving volume into a new system and making sure that the benefits of the system are shared widely among local stakeholders.

Concluding thoughts

In recent years, there has been an increase in the number of countries coming together to develop regional payment rules, schemes, and infrastructures. There are a number of different models for regional payments integration. These include mandatory schemes that replace domestic systems with regional systems (either with or without a monetary union), voluntary cross-border infrastructures that either use domestic payment systems as gateways into the cross-border system or exist alongside of and independently of domestic systems, and agreements on standards and technical guidelines to interlink domestic payment systems.

Each individual model of regional payments integration has its own definition of success. But despite the many ways success gets defined, there are commonalities among these differing models. Successful implementation can be achieved by maximizing the effects of enablers while minimizing the effects of disablers.

Enablers of regional payments integration include ensuring the widespread involvement of a range of stakeholders, receiving cooperation from the banking industry, regulatory pressure, strong political will, looking at lessons and borrowing standards from other geographies, bringing in outside experts when needed, ensuring common standards in regions that need to build domestic payment systems from scratch, the existence of modern IT platforms within banks, and limiting participation in the regional scheme or system.

Disablers to regional payments integration are the existence of varied levels of payment system sophistication within a region, a lack of uniformity in standards implementation, using a third currency for settlement or conversion, not involving all stakeholders, a lack of modernized internal infrastructures within banks, pursuing the “build it and they will come” model, having too much inclusiveness within a regional organization, banks focused on regulatory compliance instead of innovation, and unreliable energy supplies and telecommunication networks within a region.

Not every enabler or disabler in this paper applies to every system, but many of them are relevant to systems even if they pursue different models of regional integration. Recognition of these enablers and disablers can help regional systems achieve benchmarks of success, including the establishment of a centralized governance structure, the implementation of common standards, cost efficiency, wider membership, full deployment of an infrastructure, or the full migration to and compliance with a regional scheme. It is vital for stakeholders developing and participating in a regional scheme or system to have clear indicators of what success means and how to achieve it.

As trade and economic cooperation become more global, it is natural that payment flows will follow. National borders are still alive and well, particularly in the payments space. But in many regions, countries are coming together to integrate their payment systems to aid economic development, increase trade, and bolster financial inclusion. In these cases, legacy correspondent banking networks are too expensive and inefficient to achieve these goals. By having a clear view of the enablers and disablers of regional payments integration, defining and setting benchmarks for success, and adopting common standards and technical guidelines, countries can come together and integrate their payment systems in a variety of ways that can improve economic strength and cooperation for all participants.

Glossary

ACH

Automated clearing house

AEC

ASEAN Economic Community

ARS

Argentinian peso

ASEAN

Association of Southeast Asian Nations

BCEAO

Central Bank of West African States (WAEMU)

BIC

Bank Identifier Code

BRL

Brazilian real

CCH

COMESA Clearing House

COMESA

Common Market for Eastern and Southern Africa

ECB

European Central Bank, the central bank of the Eurozone

ECOWAS

Economic Community of West African States (includes all member states of WAEMU and WAMZ, as well as Cape Verde)

EPC

European Payments Council

EUR

Euro

European Commission (EC)

The executive body of the European Union that proposes legislation, implements decisions, and upholds EU treaties

F/X

Foreign exchange market

GIM

Regional interbank card switching and payment system in WAEMU

IPFA

International Payments Framework Association

ISO 20022

A financial services messaging standard developed within the International Organization for Standardization (ISO)

NPA

Nordic Payments Area

REPSS

Regional Payment and Settlement System (for the COMESA region)

RTGS

Real-time gross settlement

SADC

South African Development Community

SEPA

Single Euro Payments Area

SICA-UEMOA

System for clearing low-value interbank ACH payments in WAEMU

SME

Small- and medium-sized enterprises

SML

System of Payment in Local Currency (Sistema de Pagamentos em Moedas Locais)

STAR-UEMOA

RTGS system in WAEMU

STEP2

Pan-European system for processing euro-denominated ACH payments that is operated by EBA Clearing

STP

Straight through processing

SWIFT

Society for Worldwide Interbank Financial Telecommunication

TARGET2

RTGS system for the Eurozone

USD

US dollar

WAEMU

West African Economic and Monetary Union (often referred to by its French acronym UEMOA)

WAMI

West African Monetary Institute, which seeks to commence technical preparations to establish a West African Central Bank and a common currency for WAMZ

WAMZ

West African Monetary Zone

XML

eXtensible Markup Language

XOF

CFA franc

ZAR

South African rand