

Fintech startups and banks: Competition in a positive sense

Interview with Andreas Kubli,
Head of Multichannel Management & Digitization at UBS

About Karma, Kisses and Kraken

P2P payments soon
possible via the
SIC system?



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Quite a few observers have asserted for years that many banks will be the losers when it comes to mobile payment. As the Head of Multichannel Management & Digitization at UBS Switzerland, Andreas Kubli is shepherding the nation’s largest bank into the digital age. He sheds light on the financial technology scene, which is putting banks under pressure to master the trade-off between security and convenience when it comes to paying, and reveals the cornerstones of UBS’ digital strategy.		The new Swiss SIC ⁴ RTGS platform will commence productive operation on 16 April 2015. Just three months later, the first banks will be able to migrate to the new ISO 20022 message standard. At first, only in euroSIC, but starting in July 2016, in SIC as well. This means that large volumes of ISO 20022 payments are to be expected.	
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No, we are not talking about reincarnation, declarations of love and sea monsters, but about currencies, investments and stock markets – about those which in just a few years may become real competition to the classic dollars, funds and trading platforms of this world.		The new year begins with new regulatory homework for five system-relevant Swiss banks: intraday liquidity reporting. To limit the necessary effort and expense, SIX Interbank Clearing offers evaluations of transactions settled through its interbank payment systems.	
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For interbank payments in Swiss francs, the instant debiting of the debtor’s bank and immediate crediting at the creditor’s bank has been a matter of course for decades. It seems that in Switzerland demand also exists for booking payments between private individuals (P2P) in favor of, or at the expense of, their bank accounts in real time through the SIC RTGS system. A basis for discussion.		Additional Optional Services (AOS) are payment services offered by financial institutions that relate to the ISO 20022 standard. The term is used not only in Switzerland, but also in other countries, for instance, in relation to SEPA. These services come into play when individual providers would like to offer their customers concrete added value that goes beyond the SEPA conventions.	

**Dear reader,**

At the beginning of 2015, the Federal Council's revised Liquidity Ordinance (Liq. Ord.) and the Swiss Federal Market Supervisory Authority's revised "Liquidity risks – banks" circular (FINMA-RS 2013/6) came into force. Without exaggeration, it can be said that these represent a fundamental redesign of Swiss liquidity regulation.

The reforms correspond to the international standards of the Basel Committee for Bank Supervision. Even if "Basel III" is typically associated with requirements for equity capital, the area of liquidity also expressly belongs to this comprehensive reform project.

The Swiss regulation already contained qualitative requirements for the management of liquidity risks. In the forefront here are guidelines for risk measurement and management as well as for emergency concepts for acute liquidity bottlenecks. The corresponding international standards (Principles for Sound Liquidity Risk Management and Supervision) also originate from the Basel Committee.

Now quantitative requirements in the form of a so-called Liquidity Coverage Ratio (LCR) have been introduced. Their central aim is that the liquidity position of a bank must be sufficient to also cover an outflow of funds in a stress scenario, such as the outflow of customer funds. Expressed technically, the ratio of "high quality liquid assets" (HQLA) and the anticipated net funds outflow over a period of 30 days must amount to at least 100% at all times. The liquidity coverage ratio will be gradually introduced in

Switzerland as of the beginning of 2015. Exempted from this are the system-relevant banks, which have already been compelled to meet the requirements since the beginning of the year.

A second essential component of the liquidity standards of Basel III are formed by a longer term oriented structural liquidity ratio, the Net Stable Funding Ratio (NSFR). In accordance with the international timetable, it has not yet been implemented in Swiss law, but is anticipated to be introduced by 2018. When the time comes, the preparations are expected to be undertaken by the national "Liquidity" working group, under FINMA's lead.

The banking sector has generally supported the introduction of new and internationally harmonized liquidity regulation standards. They will make an essential contribution to increasing system stability. It is all the more important that any competition distorting tightening be dispensed with in the Swiss design and that the regulatory requirements remain commensurate in terms of implementation costs.

Dr. Markus Staub

Head Banking Policy and Banking Regulation
Swiss Bankers Association

Banks are “insufficiently meeting some customer needs today”

Quite a few observers have asserted for years that many banks will be the losers when it comes to mobile payment. As the Head of Multichannel Management & Digitization at UBS Switzerland, Andreas Kubli is shepherding the nation's largest bank into the digital age. He sheds light on the financial technology scene, which is putting banks under pressure to master the trade-off between security and convenience when it comes to paying, and reveals the cornerstones of UBS' digital strategy.

CLEARIT: Reports can be read every week about new start-ups and innovative apps. How do you see the banking environment changing; is this just something for Generation Y?

Andreas Kubli: Customer behavior is unquestionably in flux – and this has long since extended beyond the younger generation, the so-called digital natives. The older generation also increasingly uses online and mobile banking, especially through tablets. At UBS we are also witnessing strong growth figures in the areas of e-banking and mobile banking, which have since increased to over 1.5 million users and 400,000 app downloads. Expectations among users are being driven by innovative apps from start-ups, the digital giants like Apple and Google, as well as other vendors outside the industry. More and more customers are now also expecting from banks what is being modeled by Amazon and Uber. Banking and paying with smartphones are also becoming an issue as consumer mobility increases.

“Our mobile banking app is steadily being improved and that is reflected in the excellent user ratings it receives in app stores.”

With which digital strategies can banks react here?

I can only speak for UBS. We are pursuing a clear multi-channel strategy. Our customers shall be served consistently, comprehensively and securely on all channels; and that across the entire product portfolio. That is why we are further investing both in our online platform and in the digital support and upgrading of personal consultation. We are reacting to evolving customer expectations with constant innovation. Our mobile banking app is steadily being improved and that is reflected in the excellent user ratings it receives in app stores. And new functions, such as the personal financial assistant in e-banking, offer customers real added value, which is reflected in

the use of and positive feedback to our solutions.

Then your solution is not among the 17 apps from major international financial institutions that a group of French researchers recently revealed to have weaknesses? They reached the conclusion that many of them are vulnerable to manipulation and are simply poorly programmed. What is the problem here?

Security is a central issue in digital banking, particularly when it comes to payment transactions. Criminals are growing ever more professional, such as with phishing attacks. At the same time, customers prefer ever more convenience and simpler apps. The risk is that corners are cut in terms of security. A fingerprint does not replace strong two-factor authentication and therefore only suffices for selected use cases. Especially in Switzerland, security is extremely important for our customers. That is why we have invested in this issue for years and are on the cutting edge worldwide when it comes to innovation in the area of security. For example: In 2013 we introduced new access cards that enable a convenient mobile banking login at the highest possible level of security. Particularly the variety based on NFC is highly respected in the industry and was distinguished by experts in London and New York.

“For consultation-intensive products such as mortgages, for which a customer makes long-term and complex decisions, personal consultation remains sought after.”

How strong is the fintech industry in Switzerland? Is the fintech scene already taking hold in established banks or isn't it more a development that is essentially happening in Silicon Valley?

To date, the development of fintechs in Switzerland has occurred more gradually in Switzerland than it has abroad. Less than 1 % of the local risk capital has thus far flowed to fintech startups. For banks, a strong startup scene also means competition in a positive sense and the opportunity to cooperate with young companies. For example, last year we worked with Sum-up to launch an attractive product for mobile payments at the point of sale. Strengthening Switzerland as a location for fintech would therefore be welcome. Innovations such as the planned Innovation Park Zurich or Digital Zurich 2025 are aimed at supporting this development.



Short bio

Andreas Kubli is Managing Director at UBS AG Zurich. He has been Head of Multichannel Management & Digitalization for UBS Switzerland since 2013. He previously headed the Strategy & Business Development

department at UBS Switzerland. He was a partner at McKinsey & Company prior to joining UBS. Andreas Kubli is registered to practice law in Zurich and New York.

PSD2

In the European Union, opening the market to third-party providers of services in the areas of payment initiation (e.g. integrated in web shops) and account information (e.g. financial planning with aggregation of accounts and payments for multiple banking relationships) has introduced new challenges. On the one hand, many providers make use of so-called impersonation when implementing their services. They ask their customers to provide existing means of identification from the banking relationship and use these to interact with the bank on the customer's behalf. While this enables providers to introduce their services quickly and in an uncomplicated manner, it also makes it difficult for the bank to differentiate whether access is made by the customer or a third party.

Which products are especially threatened? Where in the value creation chain will the banks be hard pressed by the startups?

The simple bank products such as salary accounts, credit cards and savings accounts will be marketed the most online and usually sold without more extensive consultation. For consultation-intensive products such as mortgages, for which a customer makes long-term and complex decisions, personal consultation remains sought after. Nevertheless, customers gather information on the Internet or over the phone before they head to the bank branch. Digital providers are primarily developing innovations at the interface to the customer. They generally establish them on the existing infrastructure. Simple design, slim processes and user-orientation add up to make some of these applications attractive to customers. With its great market potential, payment traffic is a frequent point of attack and also provides vendors with access to valuable transaction and customer data.

Do risks arise for customers by using such services?

Risk exists where the customer's bank data is used for services offered by third parties; let's take the example of third-party solutions, which request security elements such as user name and password for the customer's e-banking access, and which subsequently use this information to initiate a payment. In the process, the customer loses the protection of bank secrecy as well as control over his or her data. Furthermore, the customer can hardly detect which data is analyzed and to what ends or where the data is stored.

Legislators and regulators are now striving to maintain security for customers when using these new services. However, current proposals indicate an unintended compromising of the actually remaining security. The Payment Services Directive 2 (PSD2) in the EU, will also permit third-party providers in the future to call-up comprehensive account information or to initiate payments from bank accounts if the customer provides them with permission. While such an opening may boost competition, it does not sufficiently address the aforementioned risks and may even create new ones. For example, it is not yet clear precisely how the customer will authorize access to his bank account for the third-party provider. The obligations of third-party providers regarding security and who is ultimately liable for any losses incurred are also issues that remain unclear.

Presently, we assume that rules that are equivalent to the PSD2 will also apply for bank customers in Switzerland starting 2017/2018. Therefore, from my perspective, it is mandatory that Swiss lawmakers, as well as other impacted organizations such as Consumer Protection and FINMA, pay close attention when implementing the EU rules in Switzerland and to make sure to preserve the high security that customers are accustomed to in the Swiss financial center.

"Many banks certainly still have a lot to learn when it comes to convenience and good app design."



Glossary

PHISHING

is a term derived from “password fishing”. By phishing, the attacker attempts to obtain sensitive data and information that subsequently enables them to gain access to bank accounts, credit cards, etc. by taking on the victim’s (e-)identity.

FINTECH

is comprised from the words “financial services” and “technology” and is a collective term for modern technologies in the field of financial services. These include e-commerce, mobile payment, crowdlending, crowdinvesting and business intelligence; areas in which traditional service providers such as banks are being increasingly hard-pressed.

TWO-FACTOR AUTHENTICATION

is for the purpose of proving the identity of a user by means of a combination of two different and especially independent components. Such authentication is used at ATMs, where transactions are only possible with the combination of the card and the PIN.

NFC

stands for Near Field Communication, a designation for the contactless exchanging of data using electromagnetic waves, such as with contactless payment using a mobile phone.

DIGITAL ZURICH 2025

is an initiative by representatives from business and politics who seek to turn the Greater Zurich Area into a cross-industry cluster for the digital economy, somewhat like a Silicon Valley in Europe.

Quite a few observers have noted for years that many banks and perhaps even the credit card providers will be among the losers when it comes to mobile payments. The intention is to steal at least part of the annual generated payment processing turnover of CHF 1,200 billion from the banks. Is that just break room gossip or do the banks really have reason to fear?

Many banks certainly still have a lot to learn when it comes to convenience and good app design. Banks are insufficiently meeting some customer needs today, like a convenient way to transfer money to family and friends, such as to repay someone for cinema tickets or when going out. Hardly any bank offers simply solutions like PayPal for online and mobile shopping. Starbucks impressively models what a good customer experience while shopping at the physical POS looks like. Coupons can be redeemed, loyalty points automatically credited and payment made easily, with just a fingertip touch. And finally, the digital payment and administration of bills, especially the activation of e-billing, could function more easily and faster. All these applications that are not optimally provided for by the banks represent potential attacks by new market participants.

You once said that only the fintech startups will turn out to be really innovative and their products meet a real customer need, one for which customers would also be prepared to pay. There are now already around 200 different mobile payment solutions alone in Europe. What impact does this have on Switzerland?

As with social media, the network effect is essential for mobile payment solutions. The customer wants to use a solution

that is very popular. The egg & hen problem is leading to a situation in which not everyone is going to be able to cook his own stew. Especially in a small country like Switzerland, where infrastructure building costs must be borne by fewer shoulders, the financial industry must pull together and build the infrastructure jointly, or at least establish common standards. Ultimately, added value must be created for end customers and for businesses. With SIX as a joint venture, we have a starting position that many banks outside Switzerland envy. It is now up to the banks to make use of the advantages of the cooperation and make SIX work for them.

Thirty years ago they wanted to eliminate cash money with credit and debit cards. Now it's e- and m-payments. The Swiss are not alone in terms of traditionally dragging their feet when it comes to changes. The circulation of notes and coins is actually growing at annual rates that regularly exceed those of Swiss GDP. Do you think that perhaps your grandchildren will live in a cashless society?

There are still advantages to cash money: it is accepted everywhere and can be used by anyone, even children. It certainly will not completely disappear in the foreseeable future. Nevertheless, my daughter is growing up with the option of paying with her mobile phone and her generation will probably consistently live with much less cash than some people do today.

Interview:

Gabriel Juri, SIX Interbank Clearing

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About Karma, Kisses and Kraken

No, we are not talking about reincarnation, declarations of love and sea monsters, but about currencies, investments and stock markets – about those which in just a few years may become real competition to the classic dollars, funds and trading platforms of this world.

Alternative currencies are growing ever more popular. This also applies to investments based on these virtual goods and the platforms on which they are sold. The more than 2,800 cryptocurrencies currently known around the world – some 500 of which with market capitalization – may well be highly intelligent inventions, but just how accepted are they?

Don't you get it?

Even the fanciful are gritting their teeth about Bitcoin, the best known of the lot. What was that again about the cryptocurrencies function? How can these virtual currencies become something with real value? Bitcoin is an open source software program that is managed by a decentralized peer-to-peer network, defined as a chain of digital signatures and can be digitally mined by anyone. At this point, at the latest, considerable above-average intelligence is required to be able to fathom the mining process. On the other hand, one could argue that the money creation principle of the central banks – virtually out of the blue – cannot easily be explained to laymen either. According to the US Federal Reserve, risks lie not just in the functioning, but also the mechanism, which is understood by very few, if any. It is also a matter of who consumers trust more: financial institutions that have been regulated for generations, or Internet startups that operate more or less without supervision.

Private versus governmental

Nearly throughout the world, currencies today are placed in circulation by (quasi) state-owned central banks. That certainly was not generally the case until the 20th century. Back then, most note-issuing banks were privately owned. There were more than 30 of them in Switzerland alone until the exclusive right to issue bank notes was given to the Swiss Confederation. The term "central bank" conveys the picture of a central body that regulates the nation's money supply. This function is assigned to central banks by legislative authorities in order to maintain the security, control and supervision over payment traffic and to promote stable development of the economy as a whole. In view of the growing importance of electronic money, it is essential to become aware that the self-evidence with which we assume this function is being called into question. Cryptocurrencies are private Internet alternatives to the world of central banks: with their own money and their own payment traffic networks.

Convention and trust

According to the Deutsche Bundesbank, when it comes to money, trust is a precious commodity, yet also one that is easily damaged. Trust is the most important capital for central banks and people must have faith that they ensure price stability. Whether gold, paper, an Internet protocol or cowry shells form the basis of a currency – it is worth inserting here – is of secondary importance and a matter of custom. No global consensus exists today regarding cryptocurrency protocols. Even if mistrust in state currencies should increase, as many observers believe it will, they are still a nose ahead in the race for public confidence. As long as Litecoin, for example, can weaken against the USD by 24 % in a day (25.01.2015) with no apparent reason, only to gain by 10 % the next day, a bold question mark is warranted in terms of intrinsic value. Here's another example: Karma is traded on two exchanges (Cryptsy and Bleutrade). While in June 2014, the market capitalization was over USD 2 million, it was only around USD 60,000 at the end of January 2015. Investment vehicles based on alternative currencies are also to be handled gingerly. Either erratic fluctuations are experienced with them, such as with Love, which can double in value in a single trading day (15.01.2015), or the investment is so illiquid – as is the case with Kisses – that the span between the bid and ask prices is 100 %. Nearly a third of all assets listed on the Nxt Asset Exchange did not record a single transaction until the end of January 2015. And, last but not least, trading platforms that are attacked and robbed blind by hackers go broke, while Bitcoins believed to be lost are randomly found again.

Regulate, ban, wait, tax

"We intend to found the world's first cryptocurrency bank," announced a German online bank at the end of last year with their plan to cofound a bank with Kraken, a US Bitcoin exchange. Bank services with virtual currencies that are recognized as financial instruments can only be offered by a regulated bank according to the German supervisory authorities. In contrast, the Austrian Ministry of Finance does not even recognize Bitcoins as a financial instrument. The Swiss Cryptocurrency Exchange started up without a bank license a year ago and currently hosts trading of around 30 currency pairs. The first regulated Bitcoin exchange opened on American soil in January 2015. The market leader operates in China in murky legal circumstances, after the central bank there prohibited such bank's business activities and payment services. No lack of clarity in Russia where any sort of transaction was declared illegal.

Differences between e-money and virtual currency schemes

	E-money schemes	Virtual currency schemes
Money format	Digital	Digital
Unit of account	Traditional currency (EUR, USD, CHF, etc.), with legal tender status	Invented currency (Litecoin, Bitcoin, etc.), with no legal tender status
Acceptance	By undertakings other than the issuer	Through a specific virtual community
Legal status	Regulated	Unregulated
Issuer	Legally established e-money institution	Non-financial private company
Supply of money	Fixed	Not fixed (depends on issuer's decision)
Possibility of redeeming funds	Guaranteed (and a par value)	No guarantee
Supervision	Yes	No
Type(s) of risk	Mainly operational	Credit, liquidity, legal and operational risks

Source: ECB

Hence the analysis of the Swiss Federal Council is correct in asserting that hardly any cross-border approach exists regarding the handling of alternative currencies. There

would be no international standards either. Consequently, the reactions from supervisory authorities are contradictory. The dilemma is their intention to not choke off innovation, while also not wanting to let the digital industry exist in a vacuum due to potential money laundering and criminality. Nearly all supervisory bodies warn against this. But it does not stop the authorities from raising taxes.

Cryptography

Cryptography involves the safeguarding of messages through encryption and authentication. Software-based payment systems operate through the exchanging of codes. The codes are verified with encryption technologies and protected from copies. Closed systems can work with symmetrical procedures, meaning that both partners have a secret key that enables a secured and anonymous data exchange. Security is lost should this key be disclosed. Therefore, closed systems are very problematic when many participants are involved.

(From: Fritz Klein, Guido Palazzo: Kulturgeschichte des Geldflusses, Zürich 2003)

Babylonian confusion

There is not even a consensus regarding how the Karmas of this world should be referred to. The European Central Bank calls them digital cash. For Hong Kong and China they are solely virtual goods – commodities – and not currencies. Singapore taxes them as goods that are subject to value added tax. The British tax authorities recognizes them as currencies, trading of which is not subject to taxes, while in the USA they are treated as properties for tax purposes – which certainly cannot be attributed to the differing uses of the English languages.

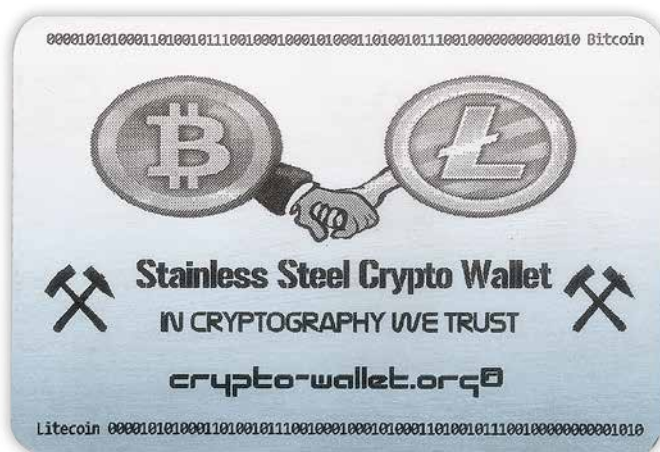
In contrast to the Canadian government, where it is e-money, the Swiss Federal Council differentiates virtual currency from e-money. In its fact sheet, FINMA refers

to Bitcoin as an Internet currency and delegates regulatory responsibility for it in a sensibly Swiss manner to the market participants: "Individuals who intend using bitcoins commercially are obliged to find out whether they are in compliance with licensing requirements under financial market legislation." It is anticipated that Bitcoin will be added to tax declarations next year. The Internet start-up Sbex, a financial intermediary and a member of

the ARIF self-regulation organization, which is approved by FINMA, already has a BTC/CHF index standing by. An Internet currency was worth more than CHF 230 per unit at the end of January. No guarantee provided.

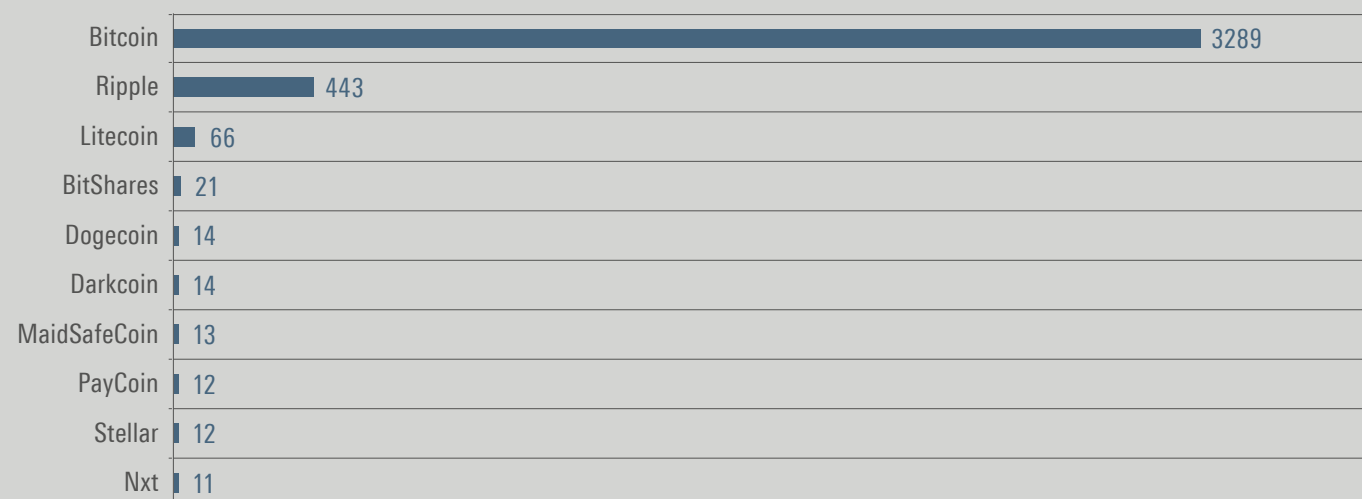
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An excursion into the physical: a so-called offline cold storage wallet solution for cryptocurrencies – indestructible

The top 10 currencies: total value in million USD



Source : <http://coinmarketcap.com> (status: 17.2.2015)

P2P payments soon possible via SIC?

For interbank payments in Swiss francs, the instant debiting of the debtor's bank and immediate crediting at the creditor's bank has been a matter of course for decades. It seems that in Switzerland demand also exists for booking payments between private individuals (P2P) in favor of, or at the expense of, their bank accounts in real time through the SIC RTGS system. A basis for discussion.

As a central interbank payment system, SIC settles payments gross and in real time. This means that the settled funds are immediately and irrevocably available in the account of the creditor's financial institution. In contrast to nearly all RTGS systems in the world, SIC also processes low value payments: More than 95% of all payments involve amounts below CHF 10,000, while more than half of them are below CHF 500. This is certainly atypical for an RTGS system which settles CHF 120 to 210 billion on an average clearing day. Nevertheless, positive experience in terms of system stability and the economic aspects of the use of an RTGS system also entirely justify low volume payments. Irrevocability and the instant availability are both among the qualities of RTGS payments as is the fact that they are settled in central bank money. The latter is certainly a very important characteristic for high value payments, offering as it does protection from systemic risks and guaranteeing the covering of accounts. But one would also be justified in questioning the degree to which this should be an equally important criterion for low value payments.

Forwarding to ultimate customers

A survey among leading Swiss banks showed that the majority of payments are already routed to creditors without delay today. However, corresponding offers for this do not always exist. No end-to-end procedure yet exists for real-time payments from paying customers to creditors which is applicable across the financial center. This differentiates the Swiss financial center from a number of other financial centers, which have recently made plenty of noise about the introduction of such offers.

Nice to have, but not necessary?

According to customer surveys, it is important to ultimate customers to have access to credits as quickly as possible. Many business cases, including Internet purchases, P2P payments or payment against delivery transactions, would profit from guaranteed times for credit transfers throughout the entire payment chain. There is a clear customer demand here which currently can only be partially covered. However, the question of just how to do it remains unanswered: Must the money itself be immediately available or would a guarantee suffice? At this point, it is useful to take another look at the aforementioned customer surveys, which very clearly

show the preference for the guarantee. This means that it would be enough to guarantee the payment without it being necessary to directly transfer the funds – which over and above are held in central bank money.

Price design

The SIC system currently has a price structure which is not profit-oriented, while at the same time, considers other criteria, such as system stability. This means that transactions grow more expensive as the clearing day progresses. While this does not represent a problem with high value payments, things are different for low value ones. This means that alternative price models must be found if the intention is to process considerably greater transaction volumes with predominantly lower amounts through SIC.

Portion of cash payments

The portion of cash payments is still rather high today in the Swiss financial center. It is likely not incorrect to assume that more than two-thirds of all transactions are handled in cash. These involve nearly exclusively low value payments. New systems for P2P payments and for transactions based on Internet purchases are creating great potential for electronic payments. If these payments in the interbank sector were all routed through SIC, then the transaction volume would be several times larger.

Christian Schwinghammer, SIX Interbank Clearing

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P2P

Today with P2P (peer-to-peer), private individuals can already (in pilot operation in Switzerland) very simply and easily pay without cash on their smartphone. However, such transactions are based on card-bound processes without the involvement of central bank money. The payments go through a separate P2P credit balance, the so-called stored value. A person provides this credit balance by providing a credit card or a bank account from which funds are loaded to the stored value. The credit balance can be stocked up with a few mouse clicks or transferred back to their bank account.

Migration to ISO 20022 in progress

The new Swiss SIC⁴ RTGS platform will commence productive operation on 16 April 2015. Just three months later, the first banks will be able to migrate to the new ISO 20022 message standard. At first, only in euroSIC, but starting in July 2016, in SIC as well. This means that large volumes of ISO 20022 payments are to be expected.

A structured migration is an essential requirement for guaranteeing secure system operation at all times. Towards this end, SIX Interbank Clearing, as the system operator, has decided to organize predefined time slots. Banks could sign up for a migration month from mid-November 2014 to the end of January 2015. Time slots will be assigned on a "first come, first served" basis. Those banks that sign up faster will receive their preferred choice of time slot. The six largest – and system-crucial SIC participants – received time slots assigned to them in consultation with the SIX Interbank Clearing Board of Directors.

Window on the new world

SIX Interbank Clearing is currently processing and coordinating the registrations and will confirm each bank's switchover once the final migration scenario is approved. The migration of all banks will take place in five time slots through mid-2018, each of which contains up to five months. Each bank must convert all its transactions to the ISO 20022 message standard within its assigned month. Whether they prefer to convert all outgoing messages (from the bank's point of view) at once or to replace message type for message type or message category for message category at a time, is up to the individual bank. There is no choice when it comes to incoming messages. As soon as a bank is deemed to be ISO-capable in the SIX Interbank Clearing databases, it will only receive messages in this standard.

Plan B

Should problems arise with outgoing messages, it is possible to immediately switch back to the old standards. This does not apply to incoming messages, which are sent through the SIC⁴ platform to the bank. In serious cases, the entire volume of the previous day would be delivered again in the old message standard on the following clearing day.

Validation portal takes off

Financial institutions and software providers have been able to test RTGS system messages in the ISO 20022 standard through the validation portal for nearly three years now.

Preparation work

The use of the SIX Interbank Clearing validation platform is recommended while preparing for the switch to the ISO 20022 message standard. The platform is located at: <https://validation.iso-payments.ch/sic4>. Validation takes place in three steps:

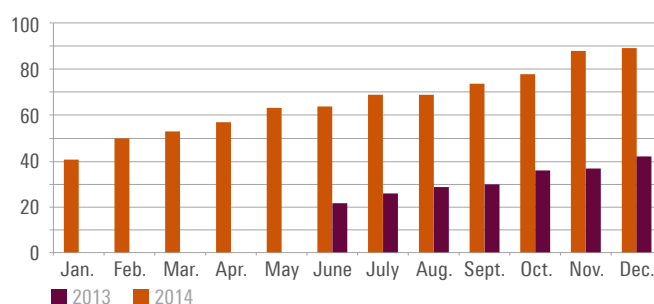
- Development of messages in the proper syntax (using the Business Rules basis document and the Implementation Guidelines).
- Testing against the validation portal for depicting correct business logic
- Load tests against the SIC⁴ test system.

The validation portal is intended to ensure the high quality of the software with an eye towards keeping the testing costs in the SIC⁴ test environment to a minimum. The published Business Rules and Implementation Guidelines form the basis. The former contains the Swiss recommendations for the implementation of the individual messages, while the latter contains detailed implementation guidelines for each message type; e.g. customer payments (pacs.008), bank and third-party system payments (pacs.009), recapitulations (camt.052).

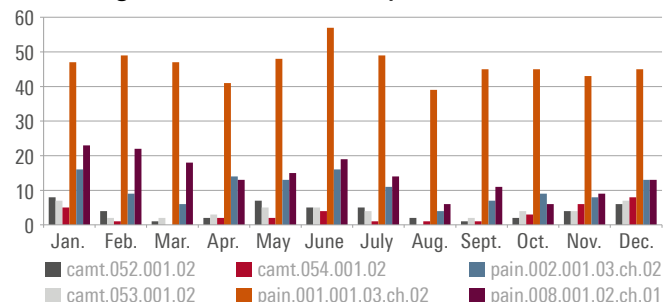
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Number of users of the SIC⁴ Validation Portal



Number of testing companies (including banks and software providers)



Customer-Bank Validation Portal

- As of the end of 2014, approx. 750 users were registered on the portal.
- In 2014, an average of 622 tests were conducted per month.
- 204 companies have tested the pain.001.

Supporting intraday liquidity reporting

The new year begins with new regulatory homework for five system-relevant Swiss banks: intraday liquidity reporting. To limit the necessary effort and expense, SIX Interbank Clearing offers evaluations of transactions settled through its interbank payment systems.

According to FINMA, no expansion of the reporting requirement to other banks is planned at the current time (see CLEARIT, December 2014). The reporting required from UBS, Credit Suisse, PostFinance, Zurich Cantonal Bank and Raiffeisen Switzerland pertains to both payments in Swiss francs and those foreign currencies that constitute an essential share of the assets or liabilities. Since the beginning of 2015, the SIC and euroSIC interbank payment systems are able to provide information about the throughput of outgoing payments on an hourly basis throughout a clearing day. This simplifies reporting for the system-relevant banks.

Implementation of the solution

SIX Interbank Clearing implemented a practical solution last year in cooperation with the system-relevant banks. For each past clearing day, SIC and euroSIC system participants receive a so-called "detailed recapitulation" after the completion of day-end processing. This comprises a list of all incoming and outgoing payments. The transmission of the evaluations to the bank occurs via the existing secure file transfer interface from SIX.

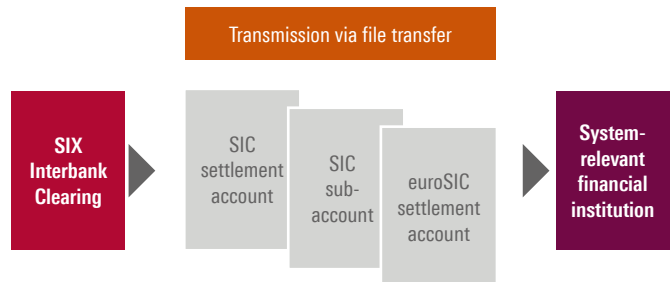
Per system (SIC and euroSIC), for each settlement account and, if possible, each sub-account, a file will be delivered to the participant with the corresponding payment streams. The recapitulation is set up so that the counterparty's account for the respective recipient bank can be seen. The marking with C (creditor) and D (debtor), it is easy to recognize whether it involves a credit or a debit for the financial institution doing the reporting.

Components

The recapitulation contains the following details for each transaction listed:

- Settlement account number/sub-account number of the file recipient
- Settlement account number/sub-account number of the participant to be debited
- Settlement account number/sub-account number of the participant to be credited
- Transaction reference number
- Credit/debit identifier

Delivery of the "detailed recapitulation"



A financial institution can receive multiple files for each clearing day.

- Settlement amount
- Currency code
- Submission date/time
- Effective settlement date/time
- Settlement date
- Message type

The calendar date and the time will be provided for all time information on the list. The time information is fundamental, since according to regulatory requirements, the turnover of a financial institution must be listed on an hourly basis. The sorting in the recapitulation occurs according to the effective settlement date/time in ascending order, meaning that the list begins with the oldest incoming and outgoing payments on a clearing day.

Currently, it is a test reporting that the system-relevant financial institutions in Switzerland must submit. According to FINMA, the test reporting will be upgraded in the course of 2015 with the compiling of data in consideration of stress scenarios.

It is to be noted that the recapitulation generated by SIX Interbank Clearing must be capable of being further processed by the financial institutions. They supply information that can be used for the supplementation and finalization of the intraday liquidity reporting. Hence the system-relevant banks are responsible for the accuracy of the complete report.

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Dealing with AOS

Additional Optional Services (AOS) are payment services offered by financial institutions that relate to the ISO 20022 standard. The term is used not only in Switzerland, but also in other countries, for instance, in relation to SEPA ("SCT Additional Optional Services"). These services come into play when individual providers would like to offer their customers concrete added value that goes beyond the SEPA conventions.

The Swiss recommendations for the application of ISO 20022 in the payments sector will be prepared by the PaCoS 20022 Payments CH working group and then published at www.iso-payments.ch. These form the basis of the migration of the financial center in the area of payment traffic from the present DTA and EPO standards to ISO 20022 "pain" (payment initiation) and "camt" messages (cash management). A uniform implementation at banks, customers and software producers will be ensured by the Implementation Guidelines and a validation platform which will vet generated pain and camt messages against the definitions.

AOS versus the market standard

Some financial institutions offer various additional services related to ISO 20022, which do not correspond to the "Swiss standard" and thus are not supported by every bank. These additional services will be described in the Swiss recommendations (the Business Rules) as Additional Optional Services (AOS). This involves around 10 such

services (and how to handle them in relation to ISO 20022) which are offered to customers by the respective financial institutions as an added value. Should some of these added value services prove to become part of the standard in the future, they will then be deleted from the AOS list and be listed as part of the Swiss Recommendations, which apply to all Swiss financial institutions.

The current AOS include the following:

- Some banks also support the processing of additional players, if these are submitted along with the payment by the customer (pain.001); e.g. in the multi-banking scenario, the "Forwarding Agent" element or the "Intermediary" (intermediary bank should it involve correspondence banking) element.
- Duplicate checking occurs as regulated by the Implementation Guidelines among Swiss financial institutions, at least on the "Document" level (message). Generally, additional technical duplicate checks are implemented at banks for other elements or message parts. This situation is listed as one of the AOS in the Business Rules.
- Another AOS pertains to check payments. Applicable for some financial institutions is: If a submitter of a pain.001 message prefers to explicitly list the "bank of origin", this can be provided in consultation with his financial institution in the "Creditor Agent" element in the form of a BIC.

Increased efficiency through "AOS"

In connection with ISO 20022, UBS offers various supplementary services that are not defined as "Swiss standard" and are therefore not supported by every financial institution. UBS already provides services which are termed additional optional services (AOS) according to the Swiss recommendations as an added value to its customers.

With one such AOS, UBS offers with corporate customers that are active across Europe the option of conducting their group-wide payment traffic through a "payment factory" with an eye towards increasing efficiency. With additional "pain.002" status messages, changes to the payment order's status and other information are provided in real time. This enables the company to validate the "pain.001" orders sent intraday in the system and to immediately react should problems arise

due to incorrectly or incompletely transmitted information. This means that they save time and enhance quality, since the payment cycle in connection with the "pain.002" messages can be completed on the same day and it is no longer necessary to wait for the "camt" or "MT940" account statements on the following day for this purpose.

Although strictly oriented upon the Swiss Business Rules, UBS creates tangible added value with this AOS which goes beyond SEPA and the "Swiss standard". Internationally active customers are thereby supported in the centralization of their European payment traffic within the scope of a payment factory strategy.

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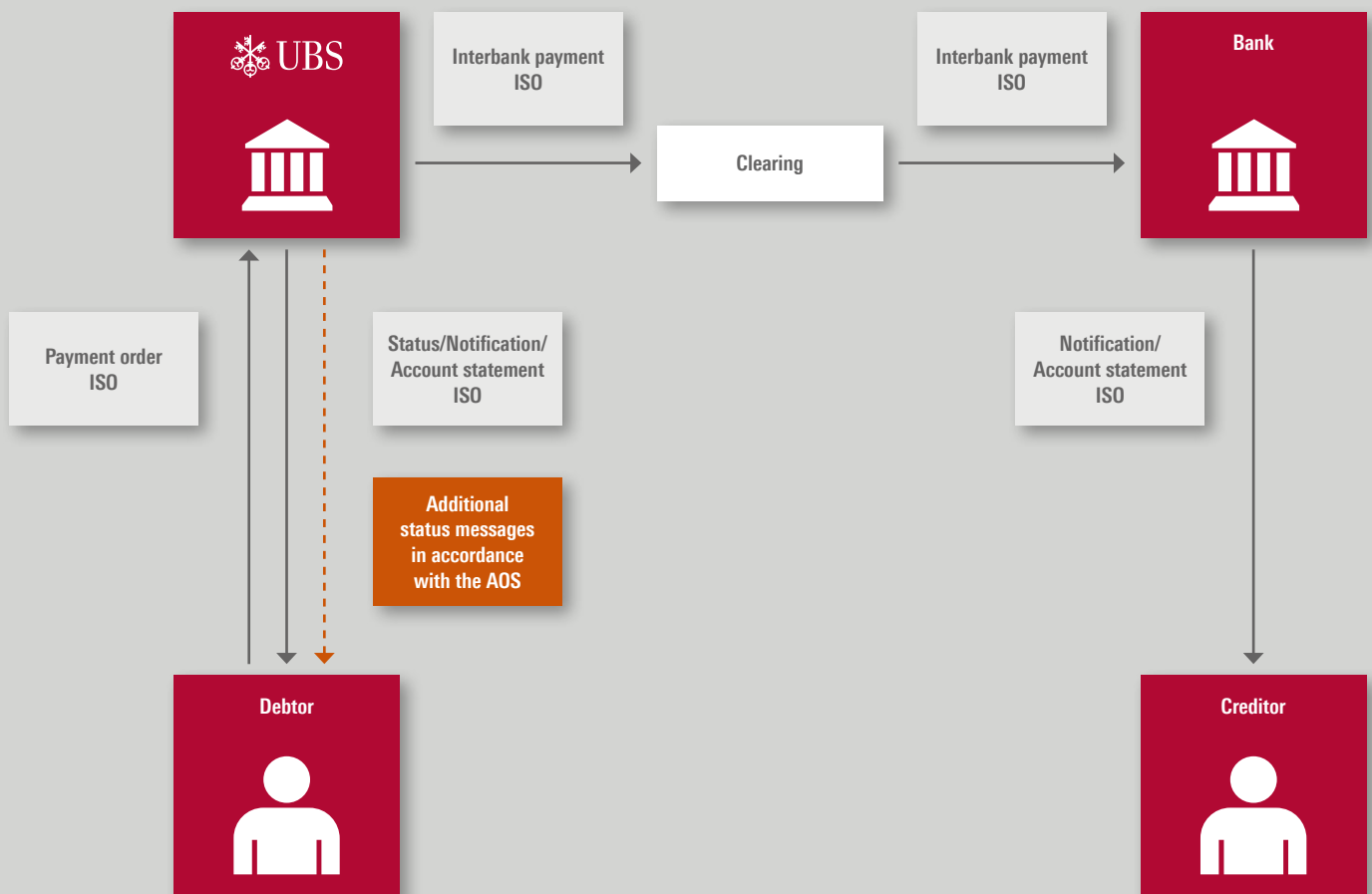
- According to the Swiss Recommendations, each pain.001 message received (payment order) or pain.008 (direct debit) is replied to with a status message (pain.002). The following is also listed as an AOS in the Business Rules: "Other status changes for the payment order; e.g. due to approvals, deletions, executions, etc., can be reported back with additional status messages, depending on the bank."

The extent to which a uniform European standard and the existence of many regional or provider-specific AOS can be brought under one roof remains to be seen.

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The UBS AOS with additional pain.002 status messages



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