Jon Nicolaisen: How important is it for a nation to have a payment system?

Speech by Mr Jon Nicolaisen, Deputy Governor of Norges Bank (Central Bank of Norway), at Finance Norway's payments conference, Oslo, 14 November 2019.

* * *

Please note that the text below may differ slightly from the actual presentation.

The payment system and Norges Bank

A nation needs to have a well-functioning payment system. Without fast, inexpensive and secure payments, a modern society grinds to a halt. Users today have access to payment methods that are dependent on large-scale IT systems to process payments efficiently. We need to ensure that the payment system can adapt to new technologies and meet the needs of business and consumers in the future.

The Storting (Norwegian parliament) has assigned Norges Bank the task of promoting an efficient and secure payment system. This is clearly spelled out in the new Central Bank Act, which enters into force at the turn of the year. Norges Bank is the operator of the payment settlement system and supervises interbank payment systems. These operational roles may take on greater importance in the coming years. Let me point out two trends.

First, we note increasing vertical integration in the payment market. Customer interface services are becoming more tightly linked to the underlying infrastructure. We saw an example here in Norway when Vipps merged with BankID and BankAxept. There is also a tendency for common contractual arrangements that were previously situated with industry organisations to be relocated to product companies. Another example is Apple, which is restricting which payment services can be offered on its mobile devices. In addition, plans are constantly being launched for new kinds of money and payment systems that offer both customer services and settlement, most recently Libra, a venture backed by Facebook and other investors. As an authority responsible for promoting an efficient payment system, Norges Bank needs to consider the whole payments chain. We also need to ask ourselves whether it is enough to be a promoter and regulator or whether we need to take on greater operational responsibility in order to perform our social mission.

Second, changes are taking place in the ownership of critical parts of the payment system. A relevant example is Mastercard’s planned acquisition of one of the key parts of Nets. The Nordic P27 initiative is hardly the last push for more international ownership of infrastructure for payments in Norwegian kroner. At Norges Bank, we need to assess the best way for us to ensure that society’s interests are being safeguarded.

Future structure of real-time payments

Norway was an early adopter of digitalisation and its payments infrastructure has been world-class. We have reaped the benefits for many years. But then the development of common infrastructure came to a halt. A number of neighbouring countries have built payment infrastructures that in some areas are now ahead of ours.

Common infrastructure makes sense. It enables us to realise economies of scale, a well-functioning payment network and a level playing field. Payment service providers will be able to compete for customers supported by an efficient and secure system. Banks save considerable sums because an extensive network of branches is no longer necessary. The infrastructure is a collective good that benefits everyone.

It has long been our experience that industry operators come together and agree good solutions in partnership with Norges Bank. But developments in technology and market structure, where payment services are increasingly becoming a competitive arena, may hinder the emergence of good common solutions. We run the risk that progress will slow and the payment system will become fragmented because the common infrastructure is eroding. We must now consider whether Norges Bank should take action to counter this fragmentation.

Future users of payment services will hardly be satisfied with payment transactions that take several hours or days to complete. The infrastructure for real-time payments is therefore critical. In 2016, Norges Bank took the initiative on a joint project with the banking industry to put in place an improved real-time payment platform. In spring, Norwegian banks declined the invitation to participate in the P27 project.

The soon-to-be-launched Straks 2.0 instant payment platform is an improvement, but not a permanent solution for real-time payments in Norway. Among other things, it is not sufficiently well-suited to business users. The question is how we proceed from here. It has proved to be a challenge to drum up support for carrying out the necessary modernisation of the infrastructure owned by industry bodies.

Norges Bank has launched a project to assess the payment and settlement system as a whole. The aim is to ensure that we have an efficient and secure payment infrastructure also in the future. Some key issues are:

- Should our payment infrastructure continue to be all-Norwegian or could it be more international?
- In that case, how do we resolve the questions relating to national contingency preparedness?
- Should payments continue to be cleared between banks prior to settlement at the central bank, or is it more efficient to settle payments one-by-one directly at Norges Bank?

When the current settlement systems were introduced, technological limitations and costs placed restrictions on the volume of payments that could be settled in real time at the central bank. The main rule has been for large interbank payments to be settled individually at the central bank, while payments between banks' customers are sent to a clearing house before banks' positions are settled at the central bank. At Norges Bank, these positions are settled five times a day Monday through Friday.

Technological developments in recent years – with cheaper and more secure IT infrastructure – now make it possible to settle retail payments as well directly and in virtually real time at the central bank. Unlike the traditional settlement systems, the new systems can be kept open around the clock seven days a week. This will pave the way for more efficient general purpose infrastructures directly operated by central banks.

An increasing number of countries have put in place or are developing solutions like these. Even in large economies with large payment volumes, round-the-clock settlement of all kinds of payments directly at the central banks is being facilitated. In 2018, the Eurosystem launched TARGET Instant Payment Settlement (TIPS). In autumn, the Federal Reserve announced that a similar system called FedNow! would be established for settlement of real-time payments in US dollars. Iceland already has a similar system The Riksbank is planning a transition to settlement of real-time payments directly at the central bank by linking to the European TIPS system.

Settling real-time payments individually and directly at the central bank automatically eliminates the credit risk between system participants. The system is simplified because banks no longer need to take a detour via a clearing house. With fewer steps, the operational risk in the payment system may also be reduced.

The EU Payment Services Directive 2 (PSD2) was implemented in Norwegian law with effect from April 2019. One of the purposes of PSD2 is to facilitate greater competition and innovation. Similar regulations are being implemented elsewhere in the world and may help enable new entrants to gain a foothold in the payments market, whether they are global tech giants like Apple, Google and Facebook or smaller, more local operators. New services and service providers will require adjustments to underlying infrastructure and rules. Equal and transparent competitive terms are crucial. At the same time, national governance, control and security considerations must be addressed.

A neutral platform and set of rules at the central bank for the direct settlement of all payment types is also in this context an obvious option which we are considering. For settlement of this kind in Norwegian kroner at Norges Bank, one may envisage a system either directly linked to Norges Bank's settlement system (NBO) or by linking to TIPS, as Sweden is now planning.

In the near future, we will begin a dialogue with industry representatives. Progress on further modernisation of the Norwegian infrastructure must now be a paramount consideration.

Security and national governance and control

If a business enterprise performs tasks that are critical to the functioning of society, policymakers need to assess the regulations and systems that are necessary to ensure adequate national governance and control. This issue gains in relevance when more and more of our critical infrastructure becomes a part of or is owned by global tech giants and payment companies.

The operation of ICT systems has largely been outsourced. This presents a number of challenges. The private financial market infrastructure (FMI) owners in the payment system have reported to Norges Bank that it is difficult to obtain necessary ICT expertise to operate and maintain key functions. If ICT operation and maintenance are moved abroad, it may, in the short term, provide access to better and more secure solutions. But we must also consider the long-term consequences. Offshoring may impair the national capacity for systems operations, development and follow-up. It may also become difficult for the Norwegian authorities to coordinate contingency planning, if large parts of operations are managed from another country.

Norges Bank sets conditions for interbank systems when tasks are moved abroad. Among these conditions are that hardware must be physically located in Norway. There must also be contingency arrangements in Norway that in a crisis can quickly take over tasks that are performed abroad.

Norges Bank is of the opinion that critical providers of services to the payment system need to be more closely monitored. Norges Bank will, in consultation with Finanstilsynet (Financial Supervisory Authority of Norway), examine the contingency arrangements and security of the payment system's critical ICT service providers and data centres. This will not entail a change in FMI owners' responsibilities for outsourced operations.

The banking and payment system in Norway is dependent on a very small number of ICT providers and data centres that are also vital to other critical infrastructure. This systemic risk needs to be followed up by the authorities. ICT service providers are not subject to direct supervision in the same way as entities in the banking and payment system.

In its official report from last year, the ICT Security Commission found that the supervision of subcontractors may present a challenge for a number of systemically critical institutions. The Commission made no specific recommendations for how the challenges related to supervision and regulation of critical ICT service providers and data centres should be followed up. In its consultation response, Norges Bank wrote that the following points deserve particular attention:

- The significance and management of concentration risk because many critical functions rely on a small number of ICT service providers and data centres.

- The supervisory frameworks for ICT service providers and data centres that are important for key public functions, including the payment system.
- Whether the contingency arrangements of key ICT service providers and data centres are sufficient.

ICT service providers, FMI owners and financial institutions need to address cyber risks. Finanstilsynet and Norges Bank have recently taken the initiative to engage in a dialogue with the industry on whether to introduce a framework for testing cybersecurity in the banking and payment system in Norway. This framework, called TIBER-EU, has been developed by the European Central Bank (ECB). A number of Norway's neighbours, including Denmark and Sweden, have introduced or are about to introduce the ECB testing framework, ie TIBER-DK and TIBER-SE, respectively. Finanstilsynet and Norges Bank are planning to invite the industry to a dialogue on this testing framework. It can also be used to bolster security linked to key ICT service providers in the banking and payment system.

The government ministries are currently engaged in work to define which private entities are of crucial importance to basic national functions and should be subject to the Security Act. A basic national function is defined to mean that a total or partial loss of that function will have consequences for the government's ability to protect national security interests. The purposes of the Security Act include protecting critical infrastructure, critical public functions and sensitive information from intentional, undesirable incidents. Norges Bank is providing the Ministry of Finance with input in this effort. Clarification of which private entities come under the Security Act may be of significance for Norges Bank's follow-up and supervisory activities.

New digital forms of money

I have so far discussed measures to strengthen bank deposit-based payment systems. Another trend is the emergence of new forms of money and payment systems. They may ultimately alter the architecture of the systems.

Norges Bank is closely monitoring the development of Libra and other initiatives. A common feature of many of these new systems is that they are closed payment systems outside the common infrastructure. They have a global reach, and in some cases, like Libra, operate with their own currency units. Often a variant of distributed ledger technology (DLT) is used.

Such new systems promote competition and innovation. They also help to focus attention on parts of the existing payment system that do not function satisfactorily. An example is expensive and slow cross-border payments. Even with the improvements of the past few years, including under the auspices of SWIFT, there is still considerable potential for efficiency gains.

At the same time, new money and payment systems entail a number of challenges. Individual users will face new security risks. Privacy may be at issue. If they become large enough to attain market power, these systems may become a source of systemic risk. For some countries that are vulnerable to a transition to payments in foreign currency, national room for manoeuvre and the ability to conduct monetary policy may be weakened.

Norges Bank is currently assessing whether the existing regulatory framework, such as the e-money rules, is an adequate response to the challenges these new systems raise. The new systems may either fall outside the scope of the existing framework or they are not sufficiently addressed by it. We must therefore consider adjustments to the rules and whether new regulations are needed. It is likely that a broader collaborative effort among policymakers at both national and international levels is needed to formulate a robust response.

Another possible response to new private digital currency is a central bank digital currency. The central bank money currently available to the public takes the form of banknotes and coins. Cash has important attributes. It needs to be available and easy to use in order to fulfil its role in the payment system. Falling cash usage and the possibility of more profound structural changes in the monetary and payment system mean that we need to consider whether it would be wise also to issue a central bank digital currency.

A working group at Norges Bank has looked more closely at the purpose and relevant forms of a central bank digital currency. The group finds that a central bank digital currency could function as a back-up solution in the event of a disruption in banks' payment systems. This contingency aspect may gain importance if banks' systems become more international. Moreover, a central bank digital currency may help to maintain competition in the payments market and offer the characteristics of legal tender.

Looking ahead, Norges Bank will assess further how well the solutions being considered are able to offer the necessary and desirable characteristics. Then we will decide whether to proceed with testing. This is a long-term undertaking, and it is still too early to draw any conclusions. This work also interfaces with other measures to ensure a sound payment system and confidence in the monetary system. We must consider the combination of measures, by both public and private entities, that can best enable us to perform our social mission.

The payment system is changing. New structural features like vertical integration, internationalisation, new market entrants and increased concentration of providers suggest that Norges Bank must assess how it will perform its role. Our ambition must be to maintain a payment system that is at least on par with comparable countries.

I said at the outset that a nation needs an efficient and secure payment system. If it does not function, that nation's currency will lose its place in the monetary system. And therefore, for every central bank that issues a currency, it is important to govern and control developments in the payment system. This is the core issue: Only Norges Bank can provide final and secure settlement in Norwegian kroner. This will be the fundamental tenet for ensuring that the payment system in Norway continues to be efficient and up-to-date.