

Central Bank Digital Currencies

Use cases in retail

Summary of project phase 1



About the project

Background

A new kind of money: The Norwegian Central Bank (like almost all the world's central banks) is exploring a completely new type of money, so-called central bank digital currency (CBDC). CBDC could become a third form of Norwegian kroner, alongside today's cash and bank account money. They will be electronic, like account money, but a direct liability on the central bank, like cash. At the same time, they can be given new attributes that neither cash nor account money have today.

May hold different characteristics: A number of technical and principal decisions must be made about CBDCs, which in turn will determine how they will function in practice, what problems they can solve, and what new challenges they pose for companies, banks, private individuals and society. A potential introduction of digital central bank money in Norway must be approved by the Parliament.

Relevance to the retail sector

Understand and influence: Being able to buy food is a critical function in society. If CBDCs are to be a true alternative to other forms of payment, they must at least be able to be used to buy food. CBDCs may become legal tender, but even if they are not, grocery merchants may have to accept them. The retail actors should familiarize themselves with the potential implications. But CBDCs may also bring benefits, depending on the features they are equipped with. It is at this point, early in the process, that the opportunities to influence the development of future money are the greatest.

The merchants' social responsibility: The Norwegian Central Bank is currently performing experimental testing of CBDCs. So far, they have to a lesser extent involved companies that will be required to accept CBDCs as payment. Grocery stores/retailers will likely be one of the most important target groups for a new type of money. If CBDCs do not work well for retail in general, and groceries in particular, the likelihood of success is reduced.

Project goal

Describing use cases: The goal of the first project phase was to describe some prioritized examples of practical use of CBDCs in the grocery trade. For a few selected use cases a visual and conceptual description of how CBDCs may work in practice has been developed. A memo describing opportunities and challenges for groceries has also been prepared. The results from the project may be reused/further developed for other trades and other businesses.

Exploring and uncovering needs and risks: Through the use cases, participants can explore, uncover and describe wishes, needs and risks. The results must be able to be shared with authorities and others. Clear use cases can help ensure that the grocery trade is heard, and that their needs are taken into account in the further process around CBDCs, which can also mean a more successful introduction. The Norwegian Central Bank has expressed that this type of input is desirable.

Main activities

Preparations: The project team collected relevant information in an «inspiration memo». The memo describes why the industry should get involved in CBDCs in the development phase, points to specific challenges/problems that can be solved with CBDCs in different circumstances, and briefly describes some other relevant CBDC projects.

Workshops: Participants from all actors committed to actively contribute to three workshops, where use cases were developed, explored and refined. Between the workshops, the project team processed the material into sketches/drafts, which were the starting point for the next workshop.

Deliverables: The end product is a memo and an associated presentation of use cases that can be shared with The Norwegian Central Bank and other relevant actors. The project has not worked towards a solution that is intended to be put into production. The purpose has been to conceptually test how CBDCs may function, and what may be their strengths and weaknesses.

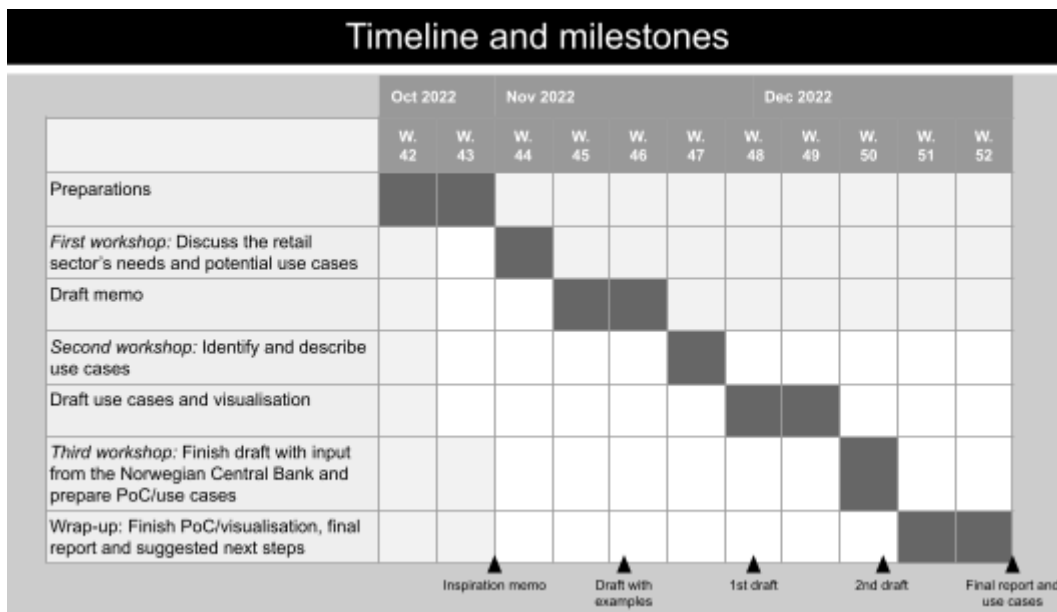
Project participants

The main project group consisted of participants from three of Norway’s largest retail actors: NorgesGruppen, Coop and Reitan. Staff from the Norwegian Central Bank’s project on CBDCs participated as observers.

The project was coordinated by Nordic Initiative by Iren Tranvåg, while PwC contributed with project management and facilitation by partner and project manager Lars Erik Fjørtoft, and project support and CBDC expert Anne Siri K. Bekkelund.

Outcome

Valuable learnings for the retail sector to understand the drivers for a potential introduction of CBDCs and the implications of different design scenarios such as distribution- and business models. While observers from the central bank got perspectives of implications in the retail domain valuable for the further investigation.



Consequences of CBDCs for retail

Through the exploration of central bank digital currencies, the participants have come to the conclusion that the introduction of CBDCs may bring a number of advantages, as long as important prerequisites are met. At the same time, the retail actors could play a decisive role for a successful introduction. If CBDCs are to be realized, these actors should therefore be closely involved, and be able to give their input in the concrete design of the new money.

Potential benefits of CBDCs

The retailers have seen several potential benefits in CBDCs, such as:

- Increased resilience in the payment system
- Reduced costs related to the handling of cash
- Opportunities for innovation, e.g. through the use of smart contracts

Retail actors may contribute to the success of CBDCs

Through the discussions in this project phase, it has become clear how important retail actors may be in ensuring a successful introduction of CBDCs. It is the merchants that will face the customers in day-to-day transactions, it is in the stores that potential challenges will be discovered and must be solved.

In an emergency situation, it is crucial that the market for food, in addition to other important markets such as fuel/electricity and medications, continues to function. If CBDCs are to function properly as a fall-back option in a crisis, it is important that the solution is well known for a majority of the population before the crisis emerges. It will, therefore, be a huge advantage if the solution has been tested and tried on a large scale in a regular environment. The retailers will contribute to this, if the solution also meets their needs and demands.

Prerequisites for a successful introduction

For the realization of the benefits of CBDCs, several prerequisites must be met, such as:

- CBDCs must be sufficiently independent from current payment solutions
- CBDCs must include offline functionality
 - Opportunities for peer-to-peer-payments, for example up to a limited amount
 - The opportunity to «download» money to a physical entity
- The solution should build on blockchain/distributed ledger technology that makes the use of smart contracts possible
- CBDCs must function well across borders. It is decisive that central banks cooperate closely to ensure interoperability
- The costs of implementing and operating CBDCs must be kept low. It is important that CBDCs do not impose unnecessary costs on merchants or customers. On the contrary, the chosen setup should contribute to increased competition in the payment market

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