



Summary White Paper

# “Future of Money”

How will we pay for our shopping in future? Will there still be cash? And banks? And central banks? The monetary system is going through a period of fundamental change. The SIX white paper on the “Future of Money” provides guidance on this issue.

Money has been found in many forms: Homer calculated the value of arms in cattle, subsequent cultures used shells, grain, oil, salt and, of course, precious metals as means of payment. In the 17th century, Europe switched from payment in kind to paper for reasons of efficiency. However, development did not end here, on the contrary: Sweden wants to do away with cash by 2023, new cryptocurrencies are springing up and assets can suddenly be bought and sold easily thanks to new digital technologies and are consequently acquiring cash-equivalent functions.

The SIX “Future of Money” white paper examines the dramatic changes affecting money: what means will be used for payment or as a store of value in future? What will be the role of banks and central banks? What infrastructure will be required? The white paper shows seven scenarios for a period of 5–7 years and ranks them according to probability.

Today, digital payments are already embedded in more and more customer journeys; more and more people pay for taxis, shopping or a cup of coffee via apps while devices become ever smarter thanks to the Internet of Things (IoT) – where will this lead? Banks are required to open interfaces to their digital vaults and customer data (open banking), which allows third parties to launch their own services and products based on these and to develop their own relationships with bank customers – what impact will this have on traditional banks? For their part, central banks are considering creating their own digital currencies – what impact will this have on traditional currencies?

The seven scenarios, which each provide different answers, are summarized below.

More detailed information and in-depth descriptions can be found at [www.six-group.com/future-money](http://www.six-group.com/future-money).

## Most-likely scenario

### Digital Rules – But Cash Persists in a Fragmented World

Digital payments have substantially increased in convenience compared to cash as digital user interfaces’ presence has expanded into ever more human activities – what started with mobile Internet and smartphones, has continued with voice interfaces and augmented reality. Digital user interfaces naturally complement almost every human activity and digital payments are seamlessly embedded in the digital services (e.g. apps, websites, AR, chats) running on these digital user interfaces. Digital payments can be automatically and seamlessly launched by the rapidly growing number of Internet-connected devices (Internet of Things, IoT), further contributing to making digital payments much more convenient than cash.

At the same time, cash continues to be perceived and widely used as a “store of value”. Despite this, cash holdings have fallen by 40–60%, mainly driven by a 40–70% decline in cash being used as means of payment.

People have reduced their holdings of digital money by investing an increasing share of their capital instead of letting it lie idle in bank accounts. Non-monetary digital assets are thus increasingly replacing digital money as a digital “store of value”. Finally, an increasing number of people regularly pay with non-monetary digital assets in lieu of digital money. The cash infrastructure is being operated centrally to increase its efficiency, but pressure to reduce costs remains. As a result, the number of ATMs will fall by 30–40%, which is in line with an elimination of cash services in bank branches.

Convenience and cost pressure have also led to crowd-sourcing (P2P, P2M) becoming an essential part of the cash infrastructure. Smart-banknote-based infrastructures may provide another new solution. Both infrastructures could individually disrupt traditional cash infrastructures by promising the same or better coverage at lower costs.

In rural areas, crowd-sourced cash infrastructure has led to an almost autonomous circular cash economy.

Banks (are required to) open interfaces (APIs) to their digital vaults and customer data, allowing third parties to seamlessly connect their digital wallets, as well. Banks expand into services “beyond banking” to counter falling margins in their traditional businesses and to fight for the ownership of customer relationships.

In response to increasing concerns over reliance and dependence on money infrastructure operated by (foreign) global players, national/regional money infrastructures (e.g. national payment schemes) have seen the light. They are interoperable with third-party global infrastructures, but can be run in complete isolation.

### **Medium-likelihood scenario**

#### **Digital Currency Is the New Cash**

Cash holdings drop by 80%. Digital means have not only replaced cash as the dominant “means of payment”, digital money/assets have also largely displaced cash as a safe “store of value”. This puts additional pressure on the cash infrastructure to lower costs while still providing geographic coverage. One path to this scenario could be that governments actively discourage people from holding cash.

### **Medium-low-likelihood scenarios**

#### **Rise of the Central Bank Digital Currency**

Anyone can have an account at the central bank. Put differently, anyone can hold digital currency issued by the central bank – referred to as “central bank digital currency” (CBDC). People can choose where to hold their digital currency, at an account with the central bank and/or a commercial bank.

### **Central Banks Are Dead, Long Live Central Banks!**

New centrally-issued currencies are the new money. New currencies and issuers replace sovereign currencies respectively states’ central banks (e.g. CHF and SNB, EUR and ECB). Non-sovereign currencies have become dominant and the issuers of these currencies are the new central banks.

### **Low-likelihood scenarios**

#### **A Cashless World is Born**

Cash disappears completely. The cashless society finally arrives. The most likely path to such a scenario is through government enforcement. A “digital cash” infrastructure may take the place of the “physical cash” infrastructure. This digital infrastructure guarantees the same levels of security and anonymity/privacy as physical cash.

#### **Moneyless Begins**

There is no such thing as “money” anymore. No asset in the economy – not even currencies – fulfills the three conditions for it to be classified as “money”. There is no consensus on use of assets as a medium of exchange, store of value, and unit of account. If two people in a transaction cannot agree on a medium of exchange, intermediaries are automatically connected in the background to exchange one medium of exchange against the other in real time.

#### **It’s a Bitcoin World**

Decentralized digital currencies have become dominant: Crypto-currencies (e.g. Bitcoin, Ether) have replaced central-bank-issued currencies as the dominant forms of money.

### **Authors**

Dieter Goerdten – Head Products & Solutions  
Dr. Tobias Lehmann – Future Scenarios Lead  
Dr. Alexander Verbeck – Head Cash Ecosystem  
Daniel Steingruber – Innovation Field Products & Platforms Lead