OPDRACHT: gebruik deze leestekst als aanzet tot het thema over geld- en kapitaalmarkten. Maak een samenvatting en studeer de inhoud van de tekst aan de hand van de vragen die achteraan worden gesteld.

From barter trade to the digital euro: the role and future of money

INTRODUCTION



Money is one of the most fundamental institutions of economic life. Almost every transaction in a modern economy ultimately involves money, yet money itself has changed dramatically throughout history.

It has existed as livestock, shells, precious metals, coins, paper notes, bank deposits and electronic records. Today, most money no longer has a tangible physical form at all: it exists as numbers recorded on the balance sheets of commercial and central banks.

What is striking is that while the form of money has constantly evolved, its fundamental economic functions have remained remarkably stable. Money serves as a medium of exchange, a unit of account and a store of value. Understanding money therefore requires more than studying coins and banknotes. It requires an examination of trust, institutions, credit and technology.

The latest stage in this centuries-long evolution may be the emergence of central bank digital currencies (CBDCs). In Europe, the European Central Bank (ECB) and the national central banks of the Eurosystem are preparing for the possible introduction of a digital euro. It would not replace cash but complement it by giving the general public access to central bank money in digital form. As of September 2026, however, the decision to actually issue a digital euro has not yet been taken. The ECB is preparing technically for a possible first issuance in 2029, conditional on the European legislative process.

THE HISTORY OF MONEY

Barter trade

Before monetary economies developed, exchange could take the form of barter: one good or service was directly exchanged for another. A farmer might exchange grain for meat, or a craftsman might exchange tools for food.

The fundamental weakness of pure barter is usually explained through the double coincidence of wants. Imagine that a farmer has wheat but wants shoes. To make a direct exchange, the farmer must find a shoemaker who not only has shoes available but also happens to want wheat at that particular moment. If the shoemaker wants fish rather than wheat, no direct transaction can take place.

Money separates the two sides of this transaction. The farmer can sell wheat for money and subsequently use that money to buy shoes. The buyer of the wheat and the seller of the shoes no longer need to be the same person.

There is another, less obvious problem with barter: the enormous number of relative prices that must be established. Introducing a single unit of account radically simplifies the system because every product can instead be expressed in terms of one common denominator.

This illustrates a central principle in monetary economics: money reduces the transaction and information costs of exchange.

Commodity money

Many societies therefore developed forms of commodity money. A commodity becomes money when it is widely accepted in exchange while simultaneously having some value or usefulness of its own.

Different societies have used remarkably different commodities. Livestock, grain, salt, shells and precious metals have all performed monetary functions at various times and places.



Not every commodity is equally suitable as money. Effective commodity money should ideally be durable, divisible, portable, recognizable, relatively scarce and difficult to counterfeit. Precious metals such as gold and silver possess many of these characteristics, which helps explain their historically important monetary role.

The transition to metallic money also illustrates an important evolution in monetary history: money gradually became more standardized.

Coins

Metal by itself still creates transaction costs. Traders must determine its weight and purity. Coinage reduced these problems by standardizing units of metal and eventually associating them with the authority of rulers or states.

Coins therefore combined economic value with institutional credibility. The symbol stamped onto a coin was effectively a certification concerning its weight and metallic content.

This introduced a feature that remains crucial today: the value of money increasingly depended not merely on the physical object but also on trust in the institution behind it.

For centuries, gold, silver and copper coins circulated across large parts of Europe, Asia and the Middle East. Major trading currencies could travel far beyond the territories in which they originated because merchants trusted their metallic content and reputation.

Paper money

Carrying large quantities of precious metals was nevertheless inconvenient and dangerous. As financial systems became more sophisticated, people increasingly deposited valuable metal with goldsmiths, merchants or banks and received paper claims in return.

If people trusted that those claims could be exchanged for the underlying precious metal, the paper itself could circulate as a means of payment.



This was a revolutionary conceptual step. The object being exchanged no longer needed to possess substantial intrinsic value. A piece of paper costing very little to manufacture could represent considerable purchasing power.

Paper money consequently illustrates that money is fundamentally a social and institutional arrangement rather than simply a valuable physical object.

Eventually, governments and central banks became dominant issuers of banknotes. Over time, the relationship between paper currency and precious metals weakened and ultimately disappeared in modern monetary systems.

The gold standard

During the nineteenth and early twentieth centuries, the international monetary system became strongly associated with the gold standard. Participating currencies were linked to specified quantities of gold, which indirectly produced relatively stable exchange rates between currencies.

Under such a system, a banknote could ultimately represent a claim connected to gold. The monetary authorities' ability to create money was therefore constrained by the monetary framework surrounding their gold reserves.



The gold standard facilitated international trade by providing exchange-rate stability, but it also restricted monetary-policy flexibility. During severe economic crises, governments could find themselves forced to choose between maintaining the gold link and responding more aggressively to domestic unemployment or financial instability.

The twentieth century therefore witnessed a gradual transition away from commodity-backed monetary systems.

Fiat money

Modern currencies such as the euro, US dollar, Japanese yen and British pound are examples of fiat money. They are not convertible into a fixed amount of gold or silver.

A €50 banknote is not valuable because the paper and ink are worth €50. Its value derives from a combination of factors: its monetary and legal status, its general acceptability, confidence in the monetary system and confidence that the currency will retain sufficient purchasing power.

This makes modern money appear paradoxical. A banknote is physically almost worthless but economically extremely useful.

The resolution of this paradox is trust.

People accept euros because they expect other people to accept euros. That expectation is reinforced by institutions, laws, payment infrastructures and the ECB's commitment to maintaining price stability. Modern money can therefore be understood as an institutionalized network of trust.

THE FUNCTIONS OF MONEY

Regardless of whether money takes the form of shells, gold coins, banknotes or electronic deposits, economists traditionally distinguish three principal functions: medium of exchange, unit of account and store of value.

Medium of exchange

First, money acts as a medium of exchange. People accept money in exchange for goods and services because they know that they can subsequently use it to purchase other goods and services.

This solves the double-coincidence problem associated with barter.

A Belgian employee, for example, does not normally receive part of a company's production as a salary. The employee receives euros and can then decide whether to spend those euros on food, housing, transport, entertainment or anything else.

The enormous efficiency of a monetary economy results partly from this separation between selling and buying.

Unit of account

Second, money functions as a unit of account. It provides a common language in which economic value can be expressed.

Suppose a supermarket offers 30.000 different products. Without money, consumers would theoretically need enormous numbers of bilateral exchange ratios to compare them. Monetary prices reduce this complexity dramatically.

A laptop costs €1.000, a coffee €3 and a bicycle €700. Consumers can immediately compare their economic values because all three prices are expressed using the same unit.

The unit-of-account function extends far beyond shops. Companies calculate profits in money; governments calculate taxes, expenditures and public debt in money; contracts specify monetary obligations; economists calculate national income in monetary units.

Money is therefore not merely something that circulates through the economy. It is also the measurement system through which the economy is recorded and understood.



Store of value

Third, money acts as a store of value. Someone can receive income today without spending it immediately.

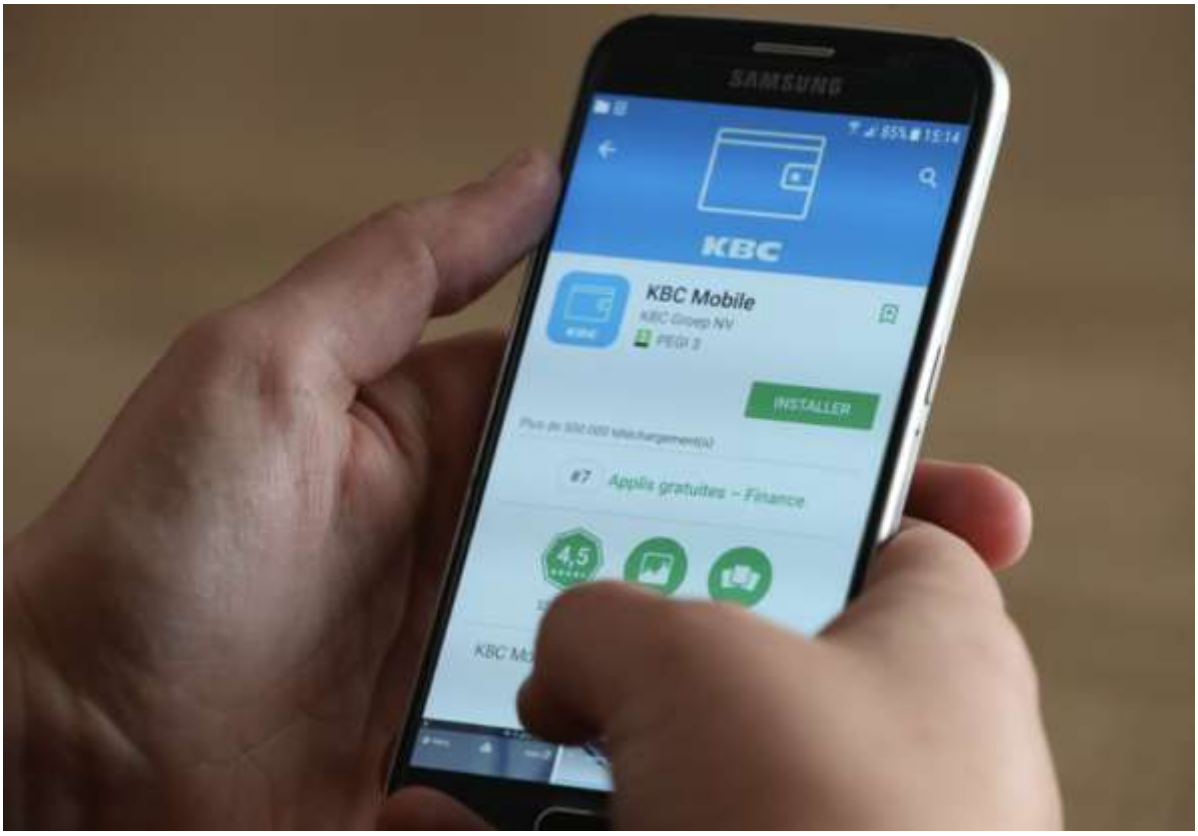
This allows purchasing power to be transferred through time.

However, money is not a perfect store of value because inflation reduces its real purchasing power. If prices increase by 10% while someone holds €10.000 in cash, the nominal amount remains €10.000 but the quantity of goods and services that can be purchased with it decreases.

This distinction between nominal value and real value is fundamental.

It also explains why extreme inflation can destabilize the monetary system itself. During episodes of hyperinflation, households may attempt to exchange domestic currency for goods, foreign currencies or real assets as quickly as possible. Money can continue to exist physically while progressively losing its economic usefulness as a store of value.

THE TYPES OF MONEY



Modern monetary systems contain several different types of money. One particularly important distinction is between central bank money and commercial bank money.

Cash: central bank money for the public

Banknotes are a familiar form of central bank money available to ordinary citizens.

When someone holds a euro banknote, they hold public money issued within the Eurosystem. Its acceptability does not depend on the solvency of an individual commercial bank.

Cash also has characteristics that remain important in an increasingly digital society. It can be used without a smartphone, does not require an individual bank account for a hand-to-hand transaction and can function without a conventional electronic payment connection.

Commercial bank money

A much larger and less visible category is commercial bank money.

Suppose someone sees €5.000 when opening their mobile banking application. There is generally no box inside the bank containing five thousand physical euros with that person's name attached to them. The €5.000 is principally a deposit: a liability of the commercial bank towards the customer.

Most money used by households and companies today takes this form.

Electronic money and private payment systems

The digitalization of payments has created another important category: electronic money and private digital payment arrangements.

Cards, payment applications and online wallets can make money appear to be fundamentally different from traditional banking, although the underlying transaction often still ultimately involves commercial bank deposits.

This distinction between money and the payment technology used to transfer money is important. A credit card, for example, is not necessarily a new currency. It is primarily a mechanism through which monetary obligations and payments are organized.

Cryptocurrencies: money or speculative assets?

The arrival of Bitcoin in 2009 created a radically different experiment: a digital asset designed to operate without a conventional central issuer.

Cryptocurrencies raise an interesting economic question: when does an asset qualify as money?

Bitcoin can be transferred electronically and is accepted for some transactions. Nevertheless, its substantial price volatility complicates its ability to perform the traditional functions of money consistently. A currency that can rapidly gain or lose a significant fraction of its value may be difficult to use as a stable unit of account or store of value.

Cryptocurrencies therefore demonstrate that being digital is not sufficient to make something economically equivalent to conventional money.

This distinction becomes particularly important when considering CBDCs.

THE FUTURE: THE DIGITAL EURO

A digital euro would be an electronic form of central bank money designed for use by people and businesses throughout the euro area. Economically, it is best understood as a digital complement to cash, rather than simply another commercial payment application.

This distinction is essential.

If someone holds €100 in banknotes, they hold central bank money.

If someone holds €100 in an ordinary commercial bank account, they hold a claim on that commercial bank.

A retail digital euro would extend access to central bank money into the digital sphere.

The ECB's objective is not to eliminate physical euro banknotes. Rather, the digital euro is intended to preserve access to public money in an economy in which payments are becoming increasingly digital.

Why does Europe want a digital euro?



One motivation is the declining relative importance of cash in many payment situations. If economic activity becomes increasingly digital while public money remains available to citizens only in physical form, central bank money could gradually become less visible in everyday commerce.

There is also a strategic dimension. Europe's retail payment system relies significantly on private and sometimes non-European payment providers. The ECB argues that a digital euro could strengthen European monetary sovereignty, reduce fragmentation in retail payments and improve the resilience of the European payment ecosystem.

This does not mean that the ECB intends to replace commercial banks or private payment companies. The ECB explicitly frames its role differently: public money should continue to provide an anchor of trust, while private companies remain important providers of innovative payment services.

Privacy, accessibility and financial inclusion

A central issue is privacy. A digital currency issued by a public institution inevitably raises questions about the amount of information potentially generated by digital transactions.

This is one reason why the design of a digital euro is economically and politically more complicated than simply developing a new smartphone application.

Accessibility presents another challenge. Money is a basic economic infrastructure. A digital form of public money should therefore not become useful only to technologically sophisticated consumers with expensive smartphones and permanent internet connections.

The ECB has accordingly emphasized inclusion and accessibility by design.

This illustrates a broader principle: a monetary system cannot be judged purely by technological efficiency. It must also be judged by its accessibility, resilience, security and public legitimacy.

Actual status

The digital euro is not yet an issued currency.

As of September 2026, however, the decision to actually issue a digital euro has not yet been taken. The ECB is preparing technically for a possible first issuance in 2029, conditional on the European legislative process.

CONCLUSION

Seen from a historical perspective, the digital euro would represent something both revolutionary and surprisingly familiar.

The technological form would be new, but the underlying pattern is ancient.

The history of money can be interpreted as a gradual process of abstraction:

barter → commodities → precious metals → coins → paper claims → fiat banknotes → bank deposits → electronic payments → potentially central bank digital currency.

At almost every stage, money becomes less dependent on the intrinsic physical value of the object being exchanged and more dependent on information and institutional trust.

A gold coin has substantial physical value.

A banknote has little physical value but represents trusted public money.

A bank deposit has no meaningful physical existence at all: it is essentially an entry in an accounting system.

A digital euro would take this abstraction another step further by allowing citizens to use central bank money directly in electronic form.

Yet the fundamental economic question remains exactly the same as it was thousands of years ago: why will somebody accept this object, token or digital record from me in exchange for something valuable?

The answer is ultimately trust.

The history of money is often presented as a history of objects: shells, coins, banknotes and digital tokens. A deeper interpretation reveals that it is actually a history of institutions and trust.

Barter illustrates how difficult exchange becomes without a universally accepted intermediary. Commodity money provided such an intermediary but was physically inconvenient. Coinage introduced standardization. Paper money separated monetary value from the physical value of the monetary object. Fiat money took this process further by basing monetary value primarily on institutional credibility. Commercial banking transformed money into a system dominated by deposits and credit, while digital technology has made monetary exchange increasingly instantaneous and geographically unrestricted.

Throughout this transformation, the three central functions have remained remarkably stable. Money must provide a sufficiently reliable medium of exchange, unit of account and store of value. The form that performs these functions, however, has never stopped evolving.

The digital euro should be understood against this historical background. It is not simply an attempt to make the euro “digital”, because most euros used in everyday economic life are already electronic commercial bank money. The deeper innovation would be to make central bank money directly usable by the public in digital form.

From cattle and gold coins to banking apps and potentially a digital euro, therefore, the technology of money changes dramatically while its deepest foundation remains constant. Money works because people believe that others will continue to accept it.

In that sense, the most important technology behind money has never been metal, paper or computer code. It has always been trust.

QUESTIONS

1) How has the physical form of money evolved throughout history, and which fundamental characteristics of money have remained unchanged despite this evolution?

2) What is barter trade, and what is meant by the “double coincidence of wants”? Explain this problem using an example of your own.

3) How does the introduction of money solve the main problems associated with barter trade?

4) Why does the use of a common unit of account reduce transaction and information costs in an economy?

5) What is commodity money, and which commodities have historically been used as money in different societies?

6) Which characteristics make a commodity suitable for use as money? Explain why precious metals such as gold and silver possess many of these characteristics.

7) Why was the introduction of standardized coins an important improvement compared with the direct use of pieces of precious metal?

8) How did coinage introduce the idea that the value of money depends not only on its physical properties but also on institutional credibility and trust?

9) Why did paper money gradually emerge as an alternative to carrying precious metals, and how did the first paper claims function?

10) Why was the introduction of paper money a major conceptual step in the history of money? What does it tell us about the relationship between intrinsic value and monetary value?

11) How did the gold standard work, and why did it contribute to relatively stable exchange rates between participating currencies?

12) What was the main trade-off associated with the gold standard between exchange-rate stability and monetary-policy flexibility?

13) What is fiat money, and how does it fundamentally differ from commodity-backed money?

14) Why can a €50 banknote have an economic value of €50 even though the paper and ink from which it is made are worth much less? Explain the role of trust, institutions and price stability.

15) What are the three fundamental economic functions of money? Explain each function in your own words.

16) How does money perform its function as a medium of exchange, and why does this make a monetary economy more efficient than a barter economy?

17) What does it mean to say that money is a unit of account? Explain why this function is important for consumers, businesses and governments.

18) What does it mean to describe money as a store of value, and why is money not a perfect store of value?

19) Explain the difference between nominal value and real purchasing power. What happens to the real value of €10,000 if the general price level increases substantially?

20) Why can very high inflation or hyperinflation undermine the ability of a currency to function as a store of value? How might households react in such a situation?

21) What is the difference between central bank money and commercial bank money?

22) Why is a euro banknote considered central bank money, and what characteristics make cash particularly useful even in an increasingly digital economy?

23) What does the €5,000 shown in a customer's commercial bank account actually represent? Why should it not be interpreted as €5,000 in physical banknotes stored somewhere inside the bank?

24) What is the difference between money itself and the technology used to transfer money? Use credit cards, payment applications or online wallets to illustrate your answer.

25) Why is it economically debatable whether Bitcoin and other cryptocurrencies should be regarded as money? Relate your answer to the traditional functions of money.

26) What exactly would a digital euro be, and how would it differ from the euros that consumers already hold in ordinary commercial bank accounts?

27) Why should the digital euro be understood as a complement to cash rather than as a replacement for physical euro banknotes?

28) What economic and strategic reasons does the ECB give for developing a digital euro? In your answer, discuss digitalization, European monetary sovereignty, dependence on private or non-European payment providers, fragmentation and resilience.

29) What challenges concerning privacy, accessibility and financial inclusion must be addressed before a digital euro could function successfully? Why should a monetary system be evaluated on more than technological efficiency alone?

30) The text describes the history of money as a gradual process of abstraction. Explain the sequence from barter to a possible digital euro and discuss why “trust” can be considered the common foundation underlying the entire history of money.