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Exploring the concept of uniformity of money

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Uniformity of money is a topic that has gained increasing attention with the emergence of new forms of digital money. It describes the principle that different forms of money in the same currency are used and traded at par, that is, at the same value. This economic note shows why uniformity of money is important for central banks and what factors underpin it. The note outlines measures to support these factors and finishes by introducing a layered perspective on the concept of uniformity of money.

In today's monetary system, public money in the form of banknotes, coins, and sight deposits of financial institutions at the central bank coexists with private bank deposits. Uniformity of money describes the principle that these forms of money can be used interchangeably—that is, one Swiss franc is one Swiss franc irrespective of its form, its issuer or where and how it is used. Thus, money issued by commercial banks in the form of deposits is accepted at the same value as money issued by a central bank in the form of banknotes.

Why does uniformity of money matter?

From a central bank's perspective, uniformity of money—also called the singleness of money—is important for the following reasons.

- **Providing a unit of account and establishing trust in the currency**: Uniformity of money allows people to easily express the value of goods and services in the national currency. If different forms of money in a given currency had different values, for example, depending on the issuer, this would complicate the calculations surrounding economic activities and could even undermine the trust in the currency.
- **Supporting price stability and the implementation of monetary policy**: The primary objective of central banks is to ensure price stability. If prices were to depend

on the form of money, this would complicate both the measurement of price changes and the implementation of monetary policy.

- **Facilitating payment efficiency**: Uniformity of money implies that different forms of money are accepted for payments interchangeably at par. Thus, it does not matter for the buyer or seller of a good or service whether she is paid in cash or with deposits from a commercial bank. If this were not the case, exchange rates between different forms of money *within the same currency* could arise and lead to inefficiencies.
- **Maintaining financial stability**: In a world where uniformity of money did not hold, an issuer's creditworthiness would be reflected in the discounts at which its form of money is circulating. While this might provide a valuable economic signal, it could lead to stigma effects and hamper deposit taking at vulnerable institutions. Sharp changes in such discounts could trigger runs from the issuing institution. This would have detrimental effects on financial stability (Brunnermeier et al., 2021).

Factors underpinning uniformity and measures to support them

While uniformity of money is highly important, it is not something authorities can easily determine or enforce. Rather, it is underpinned by a number of factors, including **trust**, **convertibility** and **acceptance.** If the public loses trust in a given form of money, for example, due to concerns about the creditworthiness of its issuer, it will be less willing to hold and use money in this form. Convertibility and acceptance refer to a similar idea: that the usability of a form of money can decline if the public faces restrictions for converting it into other forms of money—for example, deposits at another bank or cash—or experiences limited acceptance of it when making payments and purchasing goods and services.

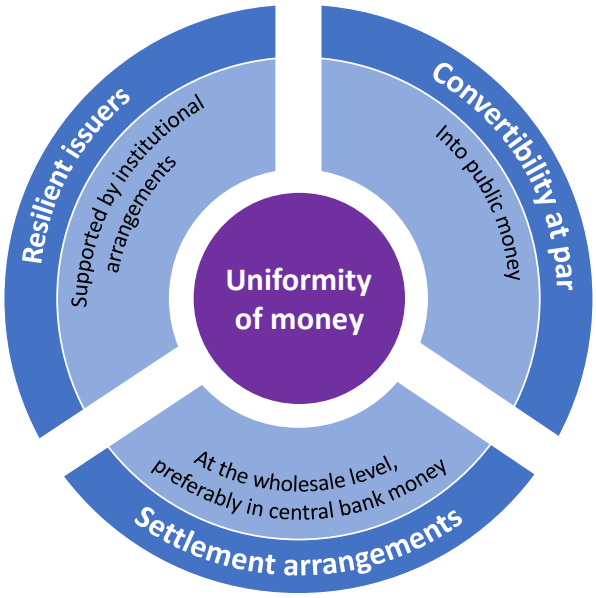
Issuers of private forms of money play a crucial role in influencing these factors. However, authorities can also use a number of measures to promote trust, convertibility and acceptance, to the extent deemed appropriate (see also Chart 1).

- **Support resilience of issuers with institutional arrangements**: Trust in private forms of money, particularly commercial bank money, builds on resilient issuers, which are supported by institutional arrangements. For instance, banking regulation and access to lending from the central bank enhance the resilience of commercial banks. Should an issuer fail, deposit insurance guarantees up to a given amount—in Switzerland, up to 100,000 Swiss Francs.
- **Facilitate wholesale settlement arrangements, preferably in central bank money:** In today's payment systems, financial institutions clear and subsequently settle payments in central bank money. This settlement in central bank money ensures that the receiving bank has no counterparty risk vis-à-vis the paying bank. Any original exposure is replaced by sight deposits at the central bank. Clearing and settlement in central bank money support trust in private forms of money and facilitate convertibility and acceptance—a recipient's bank knows that it will ultimately be paid

in central bank money. Through its function in interbank settlements, central bank money maintains its role as an anchor in the monetary system (CPMI, 2003).

- **Enable convertibility at par into central bank money**: The ability to convert private forms of money into retail or wholesale public money at par is an important factor for uniformity of money. Individuals and businesses can hold public money in the form of physical cash, and financial institutions can hold it in electronic wholesale form through accounts with the central bank.

CHART 1: MEASURES SUPPORTING UNIFORMITY OF MONEY



The above-stated measures can be mutually re-enforcing: for example, convertibility into central bank money benefits from wholesale settlement in central bank money. However, it remains unclear whether each factor is necessary or sufficient for maintaining uniformity of money. In particular, there is an ongoing debate in the context of the decline in the use of cash for payments concerning whether the use of central bank money by the general public is a precondition for uniformity of money.[1]

What is the scope of uniformity of money?

Uniformity of money is neither universal nor absolute. In particular, uniformity may not hold for all forms of money at all times (nor may authorities expect it to do so), and fees may also prevent strict convertibility at par.

[1] Designating a form of money as legal tender may help in its acceptance, but with limits. In Switzerland, for example, the concept of legal tender applies to discharging debt, but a merchant in Switzerland can choose not to accept legal tender (such as cash) for purchases of goods and services. For example, shops can refuse to accept cash by simply putting out a note at the entrance.

The first aspect can be referred to as the perimeter of uniformity. While central bank and commercial bank money will typically be accepted and exchanged at par, other forms may not, either temporarily or permanently. This is well-illustrated by the example of complementary currencies in Switzerland (Box 1). It is also important to mention that the perimeter of uniformity of money might change over time when authorities choose to take relevant measures, such as a change in regulation, and thereby influence trust, convertibility or acceptance for a certain form of money.[2]

The second aspect refers to fees that can apply to the use of money and payment instruments, for instance, for the withdrawal of cash at an automated teller machine (ATM) or for payment cards used by customers. Such fees may vary and are typically related to the payment instrument or are charged to cover the cost of converting money from one form to another. Rivadeneyra et al. (2024) argue that fees are not necessarily problematic for uniformity of money, as long as they are predictable and reflect the cost of transforming one type of money into another or the cost of using a payment instrument.

BOX 1: COMPLEMENTARY CURRENCIES

Complementary currencies are specific forms of money, with the aim of achieving certain social, environmental or trade purposes. They are privately issued means of payments and might have different denominations but are typically linked to an official currency. Two Swiss examples are WIR money and Reka money. Such complementary currencies are typically accepted at par if they are convertible and widely accepted. In contrast, a lack of convertibility or limited acceptance can lead to discounts in their value.

- **WIR money:** Electronic WIR money is a community currency circulated and backed by the licenced and regulated WIR Bank. It is issued primarily through loans denominated in WIR to small and midsized businesses. No convertibility is provided by WIR Bank into Swiss francs. According to press articles, the acceptance of WIR money is limited, and it typically trades at a discount to the Swiss franc.[3]
- **Reka money:** Reka is a voucher-like community currency circulated and backed by the Swiss Travel Fund. The aim of Reka money is to promote travel and leisure activities in Switzerland. It is often provided by Swiss companies to their employees as a fringe benefit and can be spent at more than 9,000 Swiss merchants. Convertibility is provided between Reka money and Swiss francs for merchants. This does not hold for individuals, but the wide acceptance at par ensures that Reka money can be easily spent.

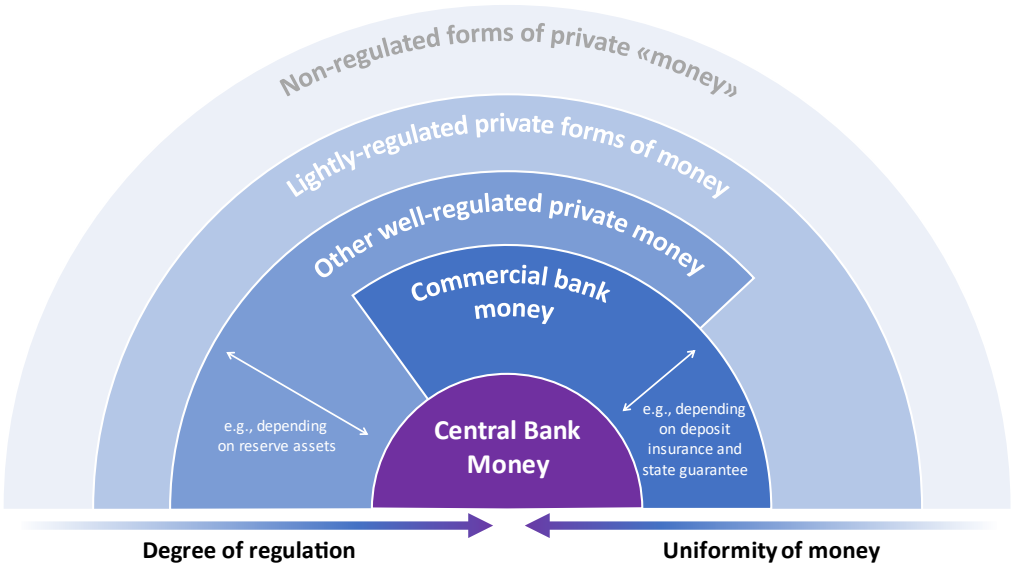
[2] This nuanced view on uniformity is also in line with the literature. Brunnermeier and Landau (2022) introduced the concepts of a broader *soft* uniformity, which covers forms of money with different regulatory regimes, and the narrower *strong* uniformity, which only includes forms of money that are subject to the same regulatory regime as commercial banks. In a slightly different framework, Rivadeneyra et al. (2024) differentiate between *weak* uniformity of money, which requires only regulated forms of money to trade at par, and *strict* uniformity, for which all forms of money denominated in a currency must trade at par.

[3] See, for example, the NZZ article from Bircher-Suits and Ertle (2021).

A layered perspective on the uniformity of money

Another way to look at uniformity of money is through multiple layers. In Chart 2, the core of the figure (purple) shows that central bank money plays a critical anchoring role. An inner layer (darker blue) represents private money from commercial banks and other well-regulated issuers. Such well-regulated money generally falls within the perimeter of uniformity of money and is accepted at par. However, certain nuances may start to appear in times of stress. For example, for commercial bank money, holdings that are subject to deposit insurance or covered by state guarantees (such as most cantonal banks in Switzerland) may be perceived as safer. Additionally, the type of reserve assets held by other well-regulated issuers to back their forms of money may influence trust. The outer layers of the figure (light blue) represent money issued by non or lightly regulated institutions.

CHART 2: UNIFORMITY OF MONEY AS A LAYERED CONCEPT



Factors such as trust, acceptance and convertibility of money determine the perimeter, and the greater the distance from the core in Chart 2, the greater the likelihood of money not being accepted at par. The perimeter of money remains a dynamic concept, driven by the actions of both the public (e.g., regulation) and private sector (e.g., acceptance and convertibility). Such a layered perspective may assist authorities in evaluating the implications of new forms of digital money for uniformity of money and related policy choices.

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