

# Designing monetary infrastructures for the common good: Reciprocity and sustainability in parallel currencies

Matilde Massó

**Abstract.** This article examines the hybrid nature of money as an institutional arrangement co-produced by public and private actors, focusing on how monetary design shapes the organisation of value, labour and access to income. It situates monetary reform within a relational and regenerative conception of sustainability, understood as an institutional property of how societies organise economic coordination over time within biophysical constraints.

The article critically assesses the limitations of existing proposals for monetary change, their conceptual foundations and the analytical gaps that limit their capacity to fulfil the economic and institutional functions conventionally attributed to money. It then advances the design of a complementary currency, Twin Money (TMy), intended to monetise socially recognised forms of voluntary and care-based labour through state-certified contributions.

Drawing on reciprocity as a principle of economic integration, the proposal redefines money's core functions by linking monetary issuance to socially valuable activity rather than to market exchange or financial debt. In doing so, it conceptualises monetary design as a sustainability-relevant institutional choice. TMy is presented as a complementary mechanism capable of expanding access to income, strengthening social inclusion and contributing to more sustainable forms of economic coordination.

**Keywords:** money; complementary currencies; reciprocity; economic sociology; social inclusion

## 1 Introduction. A monetary infrastructure for labour inclusion

This article examines the potential of innovative monetary institutional designs to foster economic and social inclusion. It advances a proposal for a parallel currency system, Twin Money (TMy), designed to operate alongside legal tender while following a distinct institutional logic. Unlike conventional money, TMy links monetary issuance to socially recognised forms of labour rather than to market exchange or financial credit. By enabling the recognition and remuneration of es-

sential yet unpaid activities, such as care, community work and environmental stewardship which sustain collective well-being and socio-ecological systems, the model addresses labour market exclusion and economic insecurity through monetary design rather than through ex post redistribution. The proposal is grounded in a critical examination of current debates on monetary governance and control, incorporating insights from justice theory (White 2000, 2003) and income policy debates, particularly within the European context.

To support this proposal, the article examines key theoretical foundations and challenges embedded in mainstream monetary theory and contemporary reform initiatives. It analyses the principal debates on the nature of money, contrasting commodity-based approaches and their economic legacy with institutional perspectives that conceptualise money as a social relation of credit and debt, with particular reference to Ingham (2004, 2018, 2020, 2025). It also considers how monetary value is constituted and stabilised in contemporary market economies. These debates are presented concisely due to space constraints.

The article then develops a section on money and sustainability. Drawing on environmental sociology and socio-ecological systems research (Catton/Dunlap 1980; Folke 2006; Tàbara 2023), sustainability is understood from a relational and regenerative perspective, as an institutional property of how societies organise value, production and livelihoods over time within biophysical constraints. From this perspective, monetary institutions are not external to sustainability concerns; they structure how economic value is created, how access to income is organised and how long-term socio-ecological viability is enabled or constrained.

In addition, the article examines emerging monetary models and reform proposals that remain under-analysed in socio-economic scholarship. The objective is to assess their conceptual foundations and to identify the analytical gaps and structural constraints that limit their capacity to fulfil the economic and institutional functions conventionally attributed to money.

Methodologically, the article advances a theoretical-conceptual contribution grounded in an integrative review of the literature on money's nature, monetary governance and reform proposals. This conceptual analysis is complemented by qualitative fieldwork consisting of nine semi-structured interviews conducted in the United Kingdom between 2018 and 2019 with representatives of alternative finance initiatives. The interviews, which lasted approximately one hour, and were conducted both face to face and remotely, served an exploratory and informational purpose. They were not designed to provide a systematic mapping of the universe of alternative monetary arrangements, nor to ensure representativeness, but to access key informants selected on pragmatic grounds, namely their direct involvement in monetary innovation and their privileged knowledge of existing reform initiatives.

The empirical material is therefore used in an illustrative and heuristic manner, helping to identify recurrent design principles, practical constraints and

shared problem framings within the field of monetary reform. It situates the proposed Twin Money model within the broader landscape of monetary innovation, rather than empirically testing or validating the model itself.

## **2 Money as a Contested Institution**

This section presents the main socio-economic perspectives on money, highlighting the persistent reductionism in academic literature, where the dominant conception treats money as a »commodity«, whether physical or virtual, used for economic exchange. Building on the limitations of this view, the discussion develops the concept of money as a social relation of credit/debt, thereby incorporating social and political dimensions into its definition and operation (Ingham 2025). On this basis, money can be analysed as a hierarchical system of monetary relations in which different forms of money occupy distinct positions of authority and legitimacy, from state-issued currency at the top, to informal private credit relations at the bottom.

Conceptualising money as a debt relation provides the analytical foundation for the arguments developed in the following sections. It allows the article to critically examine the limits of existing alternative monetary paradigms and to situate the institutional design of the proposed complementary currency within a broader understanding of money as a socially organised system of monetary relations.

### **2.1 Monetary paradigms: Analysing money's role in socioeconomic thought**

The recent history of money reveals a paradox: the coexistence of two fundamentally contrasting paradigms (Ingham 2004, 2020; Schumpeter 1994/[1954]; Smithin 2003). One is rooted in the classical commodity-money approach, while the other is based on the social construction of value and the concept of fiat money.

The commodity view sees money as a medium of payment backed by something intrinsically valuable, for instance, gold, a cryptographic algorithm, or a private debt contract. This view remains dominant in mainstream economics and is frequently echoed in public discourse by ministers of finance and central bankers, who often portray money as a quantifiable object under technical control (Braun 2016). Ironically, this same notion underlies many dystopian narratives about the future of money, particularly those involving private cryptocurrencies (Dodd 2014). In such cases, what appear to be cutting-edge monetary innovations

are, in fact, rooted in outdated assumptions about money's essence, mechanisms, and potential for societal transformation.

In contrast, less dominant perspectives in economic theory conceive of money as a social institution embedded in networks of relationships and material exchanges that determine its function and value in an open credit economy (Ingham 2020, 2025). Influenced by Keynes and earlier thinkers such as Knapp and Innes, these views regard money as circulating debt, created primarily through the lending activities of central and commercial banks. These alternative paradigms often gain prominence during financial crises, when monetary issues challenge the foundations of orthodox economic thinking (Carruthers/Babb 1996)

Rather than reflecting a genuine academic or political controversy between commodity-money and debt-money paradigms, it would be more accurate to say that social science as a whole has overwhelmingly favoured the former. The prevailing conception casts money as a neutral commodity that efficiently performs a series of technical functions. This view erases any trace of the social practices and agreements that define money's nature as a social institution, reducing it to a mere object circulating at varying speeds and in fluctuating quantities.

This dominant paradigm, present in both classical and contemporary contributions to sociology and economics, has profoundly shaped understandings of economic action, particularly through the microfoundational assumptions of neoclassical economics that have been widely debated in recent monetary theory (see Sousa 2025). It can be traced back to foundational works such as Marx' analysis of value (1999/[1867]) and, in a different register, to influential strands of modern monetary economics (for a discussion, see Smithin 2003). At its core lies a conceptual reduction of money to an object of exchange.

## 2.2 Monetary functions and the governance of credit-debt relations

Money is often defined in strictly economic terms through the tautology »money is what money does.« Three core functions are usually highlighted: medium of exchange, store of value, and unit of account (Weber 2018). The first facilitates transactions, the second allows deferred payments and intertemporal flexibility (Dodd 2014), and the third provides a standardized measure for prices and debts (Ingham 1998, 2004, 2020). In much of the literature, the medium of exchange dominates, subordinating the other two to a commodity-like logic of tokens used in market exchange (Ingham 2004; Smithin 2003). Yet these functions are inseparable, and money must be understood as embedded in socially sustained relationships.

The reduction of money to a mere means of payment has naturalized its properties and obscured its institutional and relational foundations. This opacity, while contributing to perceived stability, also generates distrust, what Haldane (2016) called the »great divide« between finance and society. A clearer understand-

ing of money as a social institution is essential for evaluating reform proposals and their implications for governance, rights, and inclusion.

In an open market economy, money is institutionalized through a complex network of credit-debt relations that include payment systems, accounting rules, and regulatory frameworks (Desan 2014). Trust in the common unit of account reflects wider social and political phenomena such as economic strength, fiscal sustainability, and geopolitical stability. From this perspective, money is circulating debt whose value derives from its use in acquiring goods and services.

A landmark clarification came from the Bank of England (McLeay et al. 2014a; McLeay et al. 2014b), which explained that commercial banks do not simply lend out deposits but create money in the act of lending. Likewise, the central bank does not fix the money supply through reserve ratios, but instead sets interest rates that influence banks' lending decisions. In short, most money in circulation is created through bank credit, with deposits recorded as liabilities and loans as assets on balance sheets. States also shape money creation indirectly through fiscal and monetary policy, including the issuance of public debt and the purchase of government bonds.

Understanding money as a balance-sheet process highlights that financial records are not neutral but reflect structural imbalances, risks, and power asymmetries. As Weber (2018) argues, balance sheets are the »mint house of the modern economy.« This perspective emphasizes the hybrid nature of money, simultaneously a public and private resource governed through overlapping institutions. Central banks, commercial banks, corporations, households, and states each play distinct yet interconnected roles in this process.

Contemporary transformations, driven by new technologies, actors, and financial products, are reshaping these dynamics and altering global monetary power structures. Reform initiatives, technical, political, and civic, have proliferated in response to concerns about financial stability and inclusion. Assessing these initiatives requires a clear understanding of money's institutional nature, its creation mechanisms, and its role in structuring rights, obligations, and opportunities.

### **3 Money and sustainability: a relational and regenerative perspective**

Building on the previous discussion, this section examines money as a social institution whose design, functions, and modes of creation shape access to resources, forms of recognition, and patterns of inclusion and exclusion. These institutional properties have become historically naturalised, often appearing as technical features of economic coordination or even properties of the paying means used in

economic exchanges, rather than as contingent social and political arrangements (Carruthers/Babb 1996).

Approaching money in this way, as an institutionalised social construction, brings sustainability into the core of economic analysis. Sustainability is thus understood as an institutional question about how monetary arrangements shape what counts as value, which forms of contribution are socially recognised, and how economic coordination is organised over time. To clarify the analytical meaning of sustainability adopted here, the following section develops this link by drawing on Simmel's analysis of money as an abstraction of value and as a form of sociation.

Sustainability is a deeply contested concept, mobilised across academic disciplines, policy arenas and social movements to denote heterogeneous and sometimes contradictory objectives. As Tàbara forcefully argues, »there is no such thing as one definition or one approach to sustainability« (Tàbara 2002: 64). This ambiguity should not be treated as a conceptual weakness as it shows how sustainability operates as a social and political concept. In this sense, sustainability can be understood as a meta-objective, comparable to ideals such as freedom or equality, whose concrete meaning is continuously negotiated through institutional arrangements and social practices rather than fixed once and for all.

In mainstream environmental economics, policy-oriented approaches and managerial discourses, sustainability is often conceived primarily as a matter of environmental efficiency, resource conservation or impact mitigation. By contrast, within environmental sociology and related critical traditions, sustainability refers to the capacity of societies to reproduce and transform the social, institutional and material conditions that make collective life possible over time. In line with the critique of human-exemptionalist worldviews developed by Catton and Dunlap (1980) and Dunlap and Catton (1979), sustainability thus emerges as a fundamentally relational problem, rooted in how social actors organize their relationships with one another and with the biophysical world.

This article adopts *a relational and regenerative conception of sustainability*, grounded in environmental sociology and socio-ecological systems research. Within these traditions, sustainability is understood as the capacity of societies to reproduce their social and institutional arrangements over time in ways that remain compatible with the biophysical conditions that sustain collective life (Catton/Dunlap 1980; Folke et al. 2010; Tàbara 2023). Sustainability, in this sense, is not limited to environmental protection, but concerns how economic and institutional systems organise social reproduction without eroding their material foundations.

Regenerative approaches shift the focus of sustainability from damage limitation to the capacity of social and institutional arrangements to sustain cooperation over time. Research on resilience and socio-ecological systems shows that when essential functions such as income provision, care or socially recognised

contributions, are organised as if they were independent from their material and ecological foundations, social arrangements become increasingly fragile. Under these circumstances, social cohesion weakens and ecological degradation accelerates (Folke 2006; Ostrom 2009).

Within this framework, sustainability can be approached as a relational problem concerning how societies organise value, contribution and social coordination in ways that remain compatible with their biophysical conditions. This understanding connects directly with Simmel's analysis of money and consumption. In *The Philosophy of Money*, Simmel conceptualises money as a social representation of abstract value, famously described as »the value of things without the things themselves« (Simmel 2013/[1900]). Through money, concrete qualities, uses and relations are translated into a common unit of account, enabling comparison, calculation and exchange across otherwise incommensurable goods and activities. This abstraction constitutes the basis of money's plasticity and its central role in modern social life.

For Simmel, monetary abstraction is not merely a technical operation but a form of *sociation*. Money is constituted by social relations and functions as a claim upon society, becoming liquid and effective within a monetary space where a unit of account is collectively accepted. By mediating social interaction through impersonal equivalences, money replaces personal dependencies with monetary ones, thereby expanding individual autonomy and freedom of choice. At the same time, this shift reorganises the conditions under which social relations are reproduced, increasingly detaching economic coordination from concrete social ties and obligations.

Simmel extends this analysis to modern consumption, which he interprets as a primary means of individual distinction. Through consumption, individuals express autonomy and differentiation via material goods, while social relations become increasingly mediated by monetary value rather than by personal or communal bonds. This dynamic generates a structural paradox: the same monetary mechanisms that expand individual freedom also produce homogenisation and abstraction, weakening the social and moral foundations that sustain collective reproduction. Simmel conceptualised this tension as part of the »tragedy of culture« (Simmel 1968/[1911]), referring to the increasing autonomy of objective cultural forms and the declining capacity of individuals to appropriate and govern them.

This insight is central to the sustainability problem addressed in this article. By functioning as an abstract unit of account, money decouples the measurement of value from social contribution, care and environmental impact. Activities that sustain social reproduction or ecological integrity tend to remain undervalued or invisible, while monetised activities acquire legitimacy regardless of their social or environmental consequences. When access to income, recognition and participation is organised primarily through such abstract monetary mechanisms, eco-

conomic coordination becomes detached from the social and material conditions under which value is generated. Over time, this mode of coordination weakens both the relational bases of social reproduction and the biophysical conditions required for socio-ecological viability, reinforcing what environmental sociology has described as the Human Exemptionalism Paradigm (Catton/Dunlap 1980).

Tàbara's work on regenerative sustainability provides a contemporary reformulation of this problem. By conceptualising sustainability as a relational and learning-based process within coupled social-ecological systems, he emphasises the need to redesign institutions that organise value and contribution in order to restore the conditions of long-term social and biophysical reproduction (Tàbara 2002, 2023). Sustainability transformations are therefore closely linked to the institutional rules through which value is defined and coordinated. Monetary arrangements are central in this regard, as they structure how contributions are recognised, how access to income is organised, and which forms of activity acquire social legitimacy. Under these conditions, the governance of money becomes a critical institutional site for sustainability-oriented reform.

## 4 New proposals for the design of monetary governance

Against this background, a growing number of initiatives have emerged that seek to rethink how money is created and governed in contemporary economies. To analyse their most innovative features in relation to legal tender, this section follows Weber's (2018) analytical framework, which distinguishes reform proposals along two dimensions: the form of monetary governance (centralised or decentralised) and the conception of money (as an asset or as credit).

Most of the initiatives discussed here focus on questions of monetary governance and on the agents involved in money creation and circulation. Each proposal identifies specific weaknesses of the current system and advances a reform aimed at transforming the governance of money in response to these perceived dysfunctions. Some emphasize restoring users' freedom, trust, and autonomy through robust systems of disintermediation grounded in cryptography, as in the case of Bitcoin. Others, such as Positive Money, advocate reinforcing the role of the state in controlling the money supply through central banks. Despite their disruptive ambitions, few of these initiatives substantially modify money's classical economic functions.

The initiatives briefly reviewed here include Bitcoin, the Sovereign Money Movement (Positive Money or *Vollgeld*), complementary and regional currencies, and Modern Money Theory (MMT). Despite their differences, they all tend to underestimate the hybrid, hierarchical, and institutionally mediated nature of money as a social institutional phenomenon (see Weber 2018). Yet, each questions the current monetary order in its own way, whether by proposing more

centralized models of monetary governance, such as Sovereign Money or MMT, or more decentralized ones, such as Bitcoin and complementary currencies.

#### 4.1 Bitcoin as virtual gold

Bitcoin, as one of the most representative cryptocurrencies, introduces a decentralized governance model based on peer-to-peer networks and blockchain technology. Within the social sciences, it has sparked intense debate over whether it should be understood as a speculative asset or as a medium of exchange (see Vigna/Casey 2015; Weber 2016), as well as over the infrastructural implications of its production, particularly the energy-intensive nature of mining farms (Caliskan 2020, 2023; Krause/Tolaymat 2018; Weber 2016).

According to the European Central Bank (2015), a virtual currency is a digital representation of value that is not issued by a central bank, credit institution, or electronic money institution, and which, under certain conditions, can be used as an alternative to legal tender. From a legal standpoint, Bitcoin is not considered money. It is not issued by a central authority, does not fulfil the three core functions of money, and faces significant limitations: it is rarely accepted as a medium of exchange, is highly volatile and therefore unsuitable as a store of value, and is an unstable unit of account.

Despite its innovative approach, several factors limit its potential as a future currency. First, Bitcoin treats money as a virtual commodity, a neutral asset, primarily used for speculation or transactions in illicit markets. Second, its value is not backed by any legal authority, raising concerns over its stability and purchasing power. Its technical complexity and volatility create a digital divide and reduce its reliability as a stable store of value. Third, the enormous energy consumption required for mining poses serious environmental concerns. As such, Bitcoin's status as an alternative to legal tender, and its role as either a payment instrument or speculative asset remains highly contested (Dodd 2014; Vigna/Casey 2015; Weber 2018).

Beyond its technical and economic limitations, Beat Weber's (2018) analysis situates Bitcoin within a broader horizon of monetary reform proposals and their connections to different visions of society. In his view, each attempt to transform money reflects a particular conception of the relationship between economy, state, and citizens. Bitcoin, by treating money as »virtual gold« detached from state mediation, embodies a liberal-radical vision that seeks autonomy from centralized institutions. This orientation resonates with the aspiration for »monetary autonomy« (Weber 2016), where trust is shifted from political authority to technology and user communities.

From this perspective, Bitcoin is not merely a technical instrument but also a normative project of decentralization and social self-organization. Like earlier

reformist traditions, from Proudhon's mutualism to Hayek's proposals for the denationalization of money, Bitcoin can be read as part of a lineage that conceives money as a space of emancipation from state power. However, as Massó et al. (2021) argue, this ideal coexists with a strong continuity with orthodox monetary thought, that is, the reduction of money to a »thing« or exchangeable commodity, overlooking its institutional and social dimension.

Weber (2018) also stresses the ambivalence of the search for monetary autonomy. On the one hand, it opens up imaginative possibilities for alternative systems of economic organization. On the other, it risks generating new forms of dependency: on technological capital, on exchange platforms, or on the asymmetries produced by the concentration of mining power. Thus, the promise of autonomy may reproduce exclusionary dynamics, especially if technological expertise and access become the main conditions for participation.

Finally, Bitcoin shows that monetary innovation cannot be reduced to its technical dimensions alone. The diffusion and adoption of any form of money ultimately rely on trust, regulation, and political legitimacy. In this sense, Bitcoin's »digital utopia« collides with a structural limit: the impossibility of fully detaching money from the sovereign frameworks and institutional arrangements that sustain it. Rather than inaugurating a radically new monetary order, Bitcoin functions as a laboratory where broader social tensions are projected, between centralization and decentralization, institutional trust and technological trust, inclusion and exclusion.

## 4.2 Sovereign Money: The state monopoly model

The Sovereign Money movement, also known as *Vollgeld* in Switzerland and Germany, or Positive Money in the UK, is an international initiative focused on the creation of bank money through the lending activities of commercial banks. It identifies the core issue of the global financial system as the endogenous cycle through which banks expand the money supply via credit creation.

Proponents of this movement advocate ending the fractional reserve system and transitioning to a sovereign monetary model where a central authority would be solely responsible for money issuance in the public interest. Despite drawing on diverse ideological currents, including green, libertarian and conservative strands, these movements converge on a shared theoretical position according to which money ought to be conceived as sovereign and asset-backed rather than as bank-created credit.

This proposal envisions a profound transformation of the financial system: central banks would become the sole issuers of both digital and physical money, relegating commercial banks to intermediaries between users and the central bank. This vision has sparked significant debate, especially in Switzerland, the

UK, and Japan. On June 10, 2018, Switzerland held a referendum on the *Vollgeld* initiative, which was rejected by 75 % of voters. The initiative proposed three core transformations:

- Eliminating commercial banks' ability to create money via credit. Banks would be allowed to lend only using pre-existing funds, such as term deposits or authorized capital.
- Granting the central bank exclusive control over money issuance, which would allow it to inject liquidity through various channels: direct transfers to the state, individual accounts for citizens, or structured lending to banks.
- Guaranteeing full deposit protection, even in the event of a bank failure, by converting demand deposits into central bank-issued money recorded off the commercial banks' balance sheets, thus removing insolvency risk.

While aiming to stabilize the financial system by separating money creation from lending, this model concentrates monetary sovereignty within the state. In doing so, it reduces money to a neutral payment instrument whose value is supposedly guaranteed by controlling its quantity, thereby reproducing a quantitative, commodity-based view of money. This approach neglects the dynamic and multifaceted role of money in the real economy, including its function as a store of value. Moreover, centralized issuance does not eliminate volatility entirely.

The Sovereign Money movement illustrates a very different vision of monetary reform than Bitcoin, yet one that also underscores the deep entanglement between money and social order. Whereas Bitcoin reflects a radical-liberal distrust of state authority, Sovereign Money embodies a call for democratic control over monetary issuance. For its proponents, the financial instability of the 2008 crisis underscored the dangers of private banks creating money endogenously through credit. As a representative of Positive Money UK explains, »the structure of the monetary system and where power rests within it is really influential on economic and social outcomes«. This diagnosis motivates the demand to reclaim money creation from private banks and re-anchor it within institutions accountable to the public. In Weber's terms, this reflects a societal vision where democracy and public authority are called upon to discipline and stabilize markets.

Sovereign Money presents money as a public good that must be consciously designed and governed. As the interviewee further highlights, restoring democratic control over money means recognizing that it is not a neutral background mechanism but »a fact of conscious design and collective design« through which societies decide »what we really should prioritize and what money means to us«. In Weber's terms, this reform reflects a societal vision where democracy and state authority are tasked with disciplining markets and ensuring stability. The Sovereign Money proposal therefore inherits a commodity-like conception of money, focusing on its issuance and circulation while overlooking its embeddedness in networks of credit, trust, and institutional arrangements. By

reducing money to a state-managed asset, the approach risks neglecting its social dimension as a web of obligations and relationships.

Weber highlights the tension at the heart of this model. On the one hand, Sovereign Money reflects a democratic impulse, aiming to reclaim monetary power from opaque financial actors and reorient it toward the public interest. On the other hand, it risks creating new dependencies on centralized state authority, reinforcing hierarchies rather than decentralizing power. In this sense, the quest for monetary autonomy takes a paradoxical form: autonomy from private banks is purchased at the cost of deeper reliance on the state. As the representative concedes, much of the campaign is »more about abstract returning democratic control« than about solving concrete economic problems. This reflects Weber's insight that reforms often oscillate between utopian aspirations for autonomy and the practical limits of institutional structures.

Over time, however, Positive Money has broadened its agenda. While early proposals centered on the sovereign money model (Dyson et al. 2016; Positive Money 2012), the organization now positions itself more broadly as a platform for democratizing finance, focusing on accountability, transparency, and the legitimacy of central banks. Recent publications also engage with debates on Central Bank Digital Currencies (CBDCs), which they view as an opportunity to expand access to public money, provided that safeguards for inclusion and cash coexistence are ensured (Youel 2024).

Ultimately, the Sovereign Money vision underscores the ambivalence of monetary reform movements. Like Bitcoin, it demonstrates that proposals to redesign money are never merely technical, but carry normative assumptions about how society should be organized. If Bitcoin embodies a libertarian dream of disintermediated autonomy, Sovereign Money reflects a communitarian call for stability through collective oversight. Both reveal the political stakes of monetary innovation, namely, the struggle over who should control the production of money, in whose interest, and according to which vision of social order.

### **4.3 Complementary currencies**

Complementary or regional currencies are community-driven monetary instruments, territorial, sectoral, or digital, designed to generate specific social or economic impacts. These non-profit initiatives do not compete with national currencies; instead, they aim to fill gaps in the official monetary system by strengthening community ties, promoting social inclusion, stimulating local economies, or encouraging ecological practices.

From this perspective, money ceases to be a neutral means of exchange and instead becomes an active builder of social and economic relationships. As Bazzani (2025) argues, complementary currencies reinforce positive freedoms

such as cooperation and sustainability, while activating forms of local power by granting communities partial financial sovereignty. The Sardex<sup>1</sup> system, for example, shows how these instruments can internalize local interdependencies and strengthen communities' capacity to face global challenges. Beyond merely compensating for the shortcomings of capitalism, complementary currencies also open spaces for collective experimentation with new forms of justice and responsibility (Bazzani 2020).

These currencies are usually targeted toward specific user groups, local communities or mutual aid networks, seeking to compensate for the shortcomings of contemporary capitalism. Here, the form of money directly affects resource distribution and local development. A widely shared diagnosis among these initiatives is that the dominant monetary system artificially generates scarcity, concentrating money in centers of power and slowing its circulation in local communities. Complementary currencies offer practical responses to deindustrialization, regional unemployment, and financial exclusion. As one UK activist defending cash explains, local currencies such as the Brixton Pound<sup>2</sup> »get criticized because their scale is small, but their main purpose is symbolic: to show that money can be designed differently and to build a degree of economic localism«.

Despite their technological advances, these currencies are not viable substitutes for legal tender. Their acceptance remains limited, their capacity to store value is weak, and they face significant institutional barriers. As Isaacs (2016) notes, they rarely reach the most economically excluded segments of society. While they are valuable tools for fostering community bonds and testing new models of economic solidarity, their overall impact remains marginal.

Complementary currencies articulate yet another vision of monetary reform, one that diverges from both Bitcoin's radical-liberal autonomy and Sovereign Money's statist centralization. For Beat Weber (2018), such initiatives exemplify reform proposals that connect monetary design with specific societal aspirations: cooperation, solidarity, and local empowerment. Instead of conceiving money as a neutral medium, these projects embed it in community relations, turning monetary instruments into tools of social engineering and political imagination. In Weber's terms, they represent an attempt to reclaim »monetary autonomy« at the local scale, granting communities partial sovereignty in managing their economic flows.

---

1 Sardex is a mutual credit system launched in Sardinia in 2010, designed to facilitate trade among small and medium-sized enterprises by issuing credits that circulate within a closed network.

2 Brixton Pound is a local currency introduced in 2009 in the Brixton district of London, aimed at supporting local businesses and fostering economic localism by encouraging residents to spend within their community.

This orientation is consistent with Bazzani's argument that complementary currencies reinforce »positive freedoms« such as cooperation, ecological sustainability, and solidarity (Bazzani 2020, 2025). By circulating within limited networks, they create protected spaces of exchange where value is tied not only to purchasing power but also to collective belonging. The Sardex system illustrates this logic: it internalizes local interdependencies and allows small businesses to sustain trade and employment despite macroeconomic constraints. Echoing this view, the above mentioned interviewee stresses that systems like Sardex are »far more interesting from an economic perspective« because they can attract businesses and sustain trade, in contrast to small-scale time banks, which »tend to remain marginal because they are locked into very small communities«. Here, money becomes not just a medium of exchange, but a vehicle for expanding communities' agency in the face of globalization.

Nevertheless, Weber would remind us that these initiatives also reflect tensions between autonomy and dependence. While they seek to democratize economic relations and challenge the scarcity produced by capitalist money, their effectiveness depends on their interaction with the dominant monetary system. Their limited acceptance, weak capacity as stores of value, and vulnerability to institutional barriers make them reliant on national and global monetary infrastructures. In this sense, the autonomy they promise is always partial and fragile, conditioned by their subordinate position in the wider hierarchy of money.

Ultimately, complementary currencies highlight that monetary reforms are not merely about technical adjustments but about visions of society. They embody a communitarian utopia of embedded markets, where money circulates to strengthen reciprocity, inclusion, and sustainability. Although their systemic impact remains limited, these initiatives function as laboratories of social innovation, experimenting with alternative forms of value and exchange and projecting broader debates on the role of money in shaping democratic and sustainable futures.

#### **4.4 Modern monetary theory: debt, money, and sovereignty**

Modern Monetary Theory (MMT) offers a framework for fiscal and monetary policy applicable to countries with sovereign currencies, those that issue their own money, choose a unit of account for pricing and taxation, and do not peg their currency to external benchmarks (thus excluding, for instance, dollarized economies or the Eurozone members).

MMT is based on several key assumptions:

- A government that issues its own currency cannot run out of money. It controls the issuance of its currency and cannot become insolvent in that currency.
- Government deficits are not inherently problematic. Deficit spending injects money into the economy, stimulating growth and employment. Conversely, government surpluses withdraw money and can dampen economic activity.
- Inflation, not deficits, is the real constraint on public spending. As long as spending does not outstrip productive capacity, governments can sustain deficits without triggering inflation.
- Taxes and public debt serve specific purposes. Taxes are not needed to ›fund‹ government spending. Instead, they regulate inflation, redistribute wealth, and influence behaviour. Public debt, meanwhile, is a form of safe savings for investors, not a prerequisite for public expenditure.

From this perspective, MMT asserts that »taxes drive money« by creating demand for the state's unit of account, since citizens must use it to settle tax obligations. This conception positions money as a state promise backed by its acceptance in tax payments. Money is thus conceived as a state liability and public debt that simultaneously represents a financial asset for its holders. It is thus both an asset for its holders and a liability for its issuer. This conception underpins MMT's policy proposals, such as the Job Guarantee<sup>3</sup> program, designed as an automatic stabilizer to ensure full employment and to mitigate downturns by anchoring the economy to the state's capacity to spend

At the same time, Weber (2018) highlights that such state-centered frameworks carry broader societal implications. By grounding money in public debt and taxation, MMT projects a vision of society in which the state acts as guarantor of both economic stability and social rights. In contrast to Bitcoin's radical-liberal aspiration for autonomy and Sovereign Money's quest for state monopoly over issuance, MMT advances a model of monetary governance in which the coordinating role of the state is significantly expanded. While MMT challenges traditional views on budgeting, taxation, and debt, advocating a more centralized governance model in which the state plays a leading role, Weber cautions that this approach may understate the complexity of monetary hierarchies and the interplay between different issuers and states in a globalized financial system.

Ultimately, MMT reframes money as a political instrument rather than a neutral medium of exchange. It situates monetary reform within a communitarian vision of society, where collective welfare is prioritized over market self-regula-

---

3 Job Guarantee is a state-funded program that offers employment at a living wage to all individuals willing and able to work, functioning as an automatic stabilizer during economic downturns and ensuring full employment.

tion. By reinterpreting public debt as both liability and promise, MMT reopens the debate on the nature of sovereignty, legitimacy, and the social purposes of money.

#### 4.5 What do these initiatives contribute to the redesign of monetary governance and to our understanding of money?

Redesigning monetary governance involves confronting significant technical, institutional, and political challenges. For money to function effectively as a social institution, it requires broad legitimacy and coordinated participation from both public and private actors. This process, however, unfolds in a context of conflicting interests, where divergent priorities and power asymmetries shape both the possibilities and the limits of institutional change. Yet reforming the monetary system alone cannot eliminate structural scarcity or resolve poverty. Economic inequality in market economies is closely tied to productive structures and to persistent credit-debt relationships that shape monetary flows.

Institutional redesign must therefore be approached with caution. While not a panacea, the nature of money is far from irrelevant. Understanding what money is helps set more realistic expectations about its potential to support economic and social well-being.

The initiatives examined (Bitcoin, MMT, Sovereign Money, and complementary currencies) present different strategies for reforming monetary creation and distribution. While some explicitly challenge the centralized and hierarchical monetary order, others seek to reshape it from within, reinforcing or reinterpreting existing structures. Collectively, they contribute to crucial debates around monetary power, democratic legitimacy, and the social functions of money.

However, democratizing money cannot be reduced to its use as a tool of fiscal or monetary policy. The current context, marked by decades of monetary standardization, innovation, and technological disruption, offers fertile ground for institutional experimentation. Bitcoin, for example, has prompted governments to explore sovereign digital currencies, while MMT, complementary currencies, and *Vollgeld* open debates on the state's role in value creation.

Despite these advances, the institutional design of money remains underdeveloped in socio-economic literature. Mainstream responses to social problems tend to focus on redistributive measures, such as basic income (Van Parijs/Vanderborght 2017; Van Parijs 1995), job guarantees (Mitchell/Watts 2005; Tcherneva 2020), or classical social protection systems, without addressing the foundations of the monetary regime. Yet today's rapidly evolving landscape presents opportunities for institutional innovation targeting the structural roots of economic exclusion.

In this direction, the following section does not present a fully-fledged alternative paradigm but rather sketches some fundamental ideas for the future devel-

opment of institutional design. The emphasis lies on integrating the main actors – state, community, and business – into a shared framework that ensures voluntary and universal access to monetary resources, decoupled from labour market participation or inherited wealth, and anchored in the recognition of the right to dignified work. This could be facilitated through the introduction of a parallel currency, whose issuance and value attribution would follow principles distinct from the current system and would be supported by a framework of mutual rights and responsibilities between individuals and the public institutions involved in money creation (see White 2000, 2003).

## **5 Parallel Money: A proposal to monetize work based on social utility**

Parallel currencies are monetary instruments issued outside the conventional legal tender circuit, but which coexist with it. Their main goal is not to replace official currency, but to complement it in contexts where the dominant monetary system proves insufficient to ensure inclusion, economic dynamism, or adequate social protection. These currencies are often designed for specific territorial areas (cities or regions) or functional domains (such as sectors of activity or particular types of transactions), and are usually channelled through public institutions or community networks.

As Andresen (2019) notes, in times of fiscal or financial crisis, states may issue electronic parallel currencies to sustain domestic demand, pay public wages, or fund social programs without increasing official debt. These currencies maintain parity with the national currency for specific transactions, such as tax payments, and circulate digitally, allowing for controlled issuance and traceability. In such models, the state acts as both issuer and guarantor, providing a regulatory framework of trust without relying primarily on the traditional banking system as an intermediary.

From this perspective, parallel currencies can be understood as institutional experiments. They create room to rethink the functions of money and to test new governance mechanisms that complement, rather than displace, legal tender. It is precisely in this spirit that the present article puts forward a proposal. By drawing on the idea of parallel money, the aim is not to envision a utopian alternative monetary order, but to outline a set of institutional design principles capable of integrating state, community, and labour in the joint creation of monetary value.

The proposal developed here is motivated by persistent limitations in how contemporary economies measure and recognise value creation. Conventional models, largely measured by GDP, have long prioritized mass production and consumption, while neglecting activities that generate significant social and en-

vironmental benefits, such as care, environmental protection and regeneration, or the defence of human rights, that remain undervalued by markets despite their central role in sustaining society. Redesigning the institutional functions of money offers the potential to make these contributions visible and to integrate them more explicitly into economic governance. Through innovative combinations of fiscal, monetary, and social policies, it becomes possible to recognize the value of the non-monetary economy while respecting individual economic freedoms, thereby creating a more balanced framework that aligns economic activity with social welfare and environmental sustainability.

## 5.1 Foundations of the proposal

It is widely acknowledged today that capitalism inherently produces structural inequalities. While this article does not delve into the mechanisms of inequality, it is important to note that in the Eurozone, labour income, wages and self-employment combined, represent roughly two-thirds of total household income, while the remainder comes from capital income (dividends, interest) and social transfers (unemployment benefits, pensions, etc.) (Eurostat 2024).

The proposal presented here aims to reduce income inequality by linking money creation directly to the right to work and individual contributions to social well-being. It introduces a complementary form of money designed to address some of Europe's most pressing social challenges. This initiative is based on the connection between money and labour. Unlike models such as Local Exchange Trading Systems (LETS) or Andresen's (2019) electronic parallel money, where units of account circulate within networks of mutual exchange for goods and services, this proposal centres on recognizing the social utility of non-monetized work.

We posit that the future of money lies in a convergence of technological and political questions. Thus, through public policy and active citizen participation, a democratic complementary monetary alternative to legal tender can be designed. This ›parallel‹ currency can coexist within a monetary space structured around a primary unit of account, such as the euro. Unlike central bank instruments or technologies like CBDCs<sup>4</sup> or cryptocurrencies, this proposal reimagines classical monetary functions: unit of account, medium of exchange, and store of value. It introduces a non-neutral monetary unit of account, an intransferable payment

---

4 A Central Bank Digital Currency (CBDC) is a digital form of a country's fiat (sovereign) currency, issued by its central bank. It is a liability of the central bank, available to the public, and intended to function alongside traditional forms of money (cash and bank deposits), with the purpose of facilitating payments, increasing efficiency of the payment system, safeguarding monetary sovereignty, and adapting to declining use of physical cash.

method, and an alternative system for generating and storing monetary value. Its architecture is designed to produce measurable socio-environmental benefits while supporting individual well-being.

TMy is created by assigning monetary value to labour that contributes to the common good. This model is rooted in reciprocity and equivalence, not in the matching of objects, but in the balancing of rights and responsibilities. At its core is a renewed social contract between citizens and the state, based on mutual reciprocity and shared benefits. Individuals who seek income outside the formal labour market contribute socially productive services in exchange. This contribution validates their right to work, or to choose not to. TMy is not a form of forced labour but a voluntary pathway for obtaining monetary resources in recognition of social contribution.

Monetizing these activities using a parallel currency does not imply adopting market-based valuation methods. Nor does it reflect a redistributive model, as funding is not drawn from tax revenues but generated directly through certified social labour.

The concept of reciprocity developed in this proposal differs from the interpretations advanced by republican egalitarians (White 2003; Birnbaum 2015). For the latter, reciprocity is inspired by the idea of a contractualist welfare system in which access to social benefits is conditioned on the fulfilment of a set of responsibilities. Thus, recipients of welfare services would have an equivalent obligation, grounded in reciprocity, to contribute in some way to returning the benefits they have received. This obligation is expressed in the responsibility to work and to contribute to the production of social value within a cooperative framework that precisely enables the enjoyment of certain social benefits. From this perspective, the enjoyment of specific social provisions should be conditional upon reciprocal labour performance or contribution.

The most frequent objections to this approach are based on the argument that the principle of reciprocity does not produce egalitarian outcomes for all citizens (Noguera 2007; Segall 2005). In a welfare scheme conditioned on productive contribution, the obligation to work would only apply to those who need access to social resources, while exempting those who neither need to work (for example, because they live on rentier income) nor to benefit from such resources.

By contrast, the proposal developed here advocates adopting a notion of reciprocity compatible with an unconditional welfare policy. To this end, it suggests removing some of the barriers that prevent individuals from accessing the labour market, thereby enabling the realization of the social right to decent work. Monetizing, and at the same time decommodifying, labour implies that those already engaged in activities that contribute to the common good could receive a reciprocal monetary income.

This proposal is also grounded in the possibility that individuals may themselves create money by producing social utility. In this way, it broadens the modali-

ties of access to monetary resources, which would no longer be limited to existing mechanisms such as employment, inheritance, income derived from capital assets, or social transfers. In this initiative, income would be conditioned on the production of social value. This process would be certified by the state, which would settle the monetary labour income generated by citizens in a new unit of account.

Market economies do not always provide reasonable access to employment and labour income. In this regard, exclusion from the labour market is not entirely the responsibility of the individual, but is largely explained by the structural characteristics of market mechanisms themselves.

Similarly, the state must guarantee reasonable access to certain vital resources, ensuring that individuals have the capacity to exercise their right to work and to a dignified monetary income. If citizens were given the opportunity to monetize the work they currently perform or wish to perform, it would advance the balance between rights, economic freedoms, and responsibilities in a way that transcends the scarcity imposed by the market and the constraints of public budgets.

This monetary paradigm could thus become an important component of the renewed social contract mentioned above, based on a redefined reciprocal relationship between citizens, public authorities, and the community.

## 5.2 The Twin Money model

This section outlines the essential features and operational mechanisms of the proposed parallel currency model (TMy) with particular attention to its institutional architecture and the innovations it introduces compared to official currency.

Firstly, the creation of TMy rests on three interrelated elements: the individual's preferences, the personal skills or competencies applied to socially valuable work, and the state's certification of that contribution. In this model, money is created through labour itself, more precisely, through the voluntary contribution of individuals to the common good, validated and guaranteed by public authorities.

Second, TMy is not treated as a scarce resource generated through market exchange. Instead, its supply is linked to the fulfilment of social needs, which, from an anthropological perspective, are not scarce but inherent to human life. The volume of TMy issued depends on citizens' voluntary contributions to public interest, certified by appropriate authorities.

Third, tying money creation to voluntary work, rather than formal employment, that generates social benefit fosters a more egalitarian framework. It recognizes the contributions of large segments of the population engaged in unpaid labour outside the market. This voluntary system empowers individuals to deter-

mine both the form and quantity of their income based on their definition of a ›good life‹. In this way, TMy promotes both freedom and autonomy while ensuring necessary social protection.

In this model, income is directly linked to one's social contribution, framing reciprocity through democratic processes rather than market forces.

As previously discussed, this model seeks to monetize work within the non-monetary economy, emphasizing the individual right to decent, voluntary, and compensated labour. At the same time, it affirms the right not to work, aligning the principle of reciprocity with individual freedom. The state's role is not to directly provide all resources, but to ensure fair access to them.

In the TMy model, the classical functions of money (unit of account, means of payment, medium of exchange, and store of value) are reformulated to align with a new economic logic rooted in reciprocity, social contribution, and public certification. Rather than serving only market-based coordination, these functions are redefined to support the recognition and monetization of those non-market labour activities that benefits the collective. This transformation creates a monetary infrastructure whose economic classic functions are reformulated as follows:

*Unit of Account.* In this model, the unit of account is redefined by linking money directly to socially valuable work. This departs from traditional abstract metrics of value and aligns with Karl Polanyi's (1957) concept of a substantive economy. Monetary value here is grounded in contributions to the common good, outside of market pricing mechanisms. This reframing supports negative liberty (Berlin 1997) by ensuring access to money and reducing deprivation.

*Medium of exchange and means of payment.* Twin Money (TMy) proposes a new mechanism for money creation and economic exchange. It is conceived as a parallel unit of account, digital and state-backed, issued by individuals whose labour has been officially recognized and certified. Its issuance is recorded as public debt: a liability for the state and an asset for the citizen who generates it. Thus, it represents an individual right against the state, whose obligation is not to redeem it in legal tender but to guarantee its liquidity within the market.

Prices in TMy are determined through regular market mechanisms, while maintaining parity with the official unit of account:

$$P(\text{official currency}) = P_{\text{tmy}}(\text{Twin Money unit})$$

This ensures continuity of current price-setting logic for most goods and services. However, in the case of non-monetary labour, value is determined by social contribution rather than market demand. In this way, market principles are preserved for everyday consumption, while introducing an innovative monetary form to value and reward social labour.

TMy is non-transferable. It can only be spent by the individual who generates it to purchase goods and services. It cannot be accumulated or circulated among

individuals. Its lifecycle ends at the point of spending, when the receiving company or institution settles it with the state. The economic flow can be described as:

SMV (Social Monetary Value) → Goods (M)

Unlike conventional transactions, money here does not pass from buyer to seller; it is extinguished upon use. Because it is non-transferable, it removes the incentive for speculative accumulation.

For businesses, TMy is recorded as an asset, while for the state it represents a liability. Companies report their TMy transactions in separate accounts and pay taxes in the official currency on all revenues – whether earned in legal tender or in TMy. The state then redeems the company's net TMy balance in official currency.

In sum, this system establishes an alternative monetary circuit:

- Citizens generate TMy income through socially recognized labour.
- This income functions as a digital deposit: an individual asset and a state liability.
- When citizens spend it, businesses receive TMy as a claim on the state.
- Finally, the state settles the liability by converting TMy into legal tender.

In this way, Twin Money fosters economic dynamism without encouraging speculative accumulation, aligning individual benefit with collective welfare.

*Store of value and the role of the state.* The coercive dimension of money, its legal and institutional enforcement, must be acknowledged for the system's viability. The dominance of a unit of account does not emerge spontaneously from economic interactions, nor solely through top-down imposition. It arises dialectically, through complex relations among socioeconomic actors, with the state playing a key coordinating role. To function, this new monetary system requires state certification of voluntary contributions and infrastructure support to ensure liquidity and value preservation.

For this new monetary framework to operate effectively, the state must certify voluntary contributions and provide the necessary infrastructure to guarantee both liquidity and the preservation of value. State backing secures TMy's function as a reliable store of value and ensures its convertibility into legal tender for businesses. This equivalence mitigates volatility and strengthens public confidence in the system.

This reconceptualization of money as an institutional fact may create new possibilities for policy innovation. The Twin Money (TMy) model suggests how technology, state institutions, and collective participation could converge to support a complementary monetary framework aimed at reducing labour income inequalities. Unlike traditional social policy instruments, typically centred on monetary

transfers, TMy is conceived as a reciprocal system that balances rights and responsibilities, linking individual freedom with social solidarity. Entirely digital in form and grounded in public certification, TMy points to the potential of a democratic alternative to legal tender coexisting with the dominant unit of account, thereby opening the way toward a more inclusive and sustainable economic order.

## 6 Conclusions

Contemporary money is both a mirror and a constitutive element of the evolution of market economies, reflecting its dynamics while simultaneously shaping them. As a fundamental component of the complex market system, it operates not only as a medium of exchange but also as an institutional arrangement that embodies relations of power, trust, and social coordination. Yet its design, forms, and properties usually remain invisible, taken for granted and naturalized (Carruthers/Babb 1996). It is often portrayed as the purest expression of value standardization, the distilled essence of economic worth (Simmel 2013/[1900]) reduced to a perfectly divisible metric. In this way, the existing form of money is presented as if it were the only conceivable one. For many, particularly those younger generations socialised within a relatively stable and digital monetary regime, money appears as an ahistorical, asocial, and universal commodity.

The proposal developed in this article challenges this naturalisation by treating money as a core infrastructure of social reproduction. Building on this insight, the Twin Money (TMy) model advances an alternative institutional design that does not seek to replace legal tender, but to complement it through a parallel monetary instrument oriented towards social inclusion and sustainability. Rethinking the functions of money as unit of account, means of payment and store of value thus becomes a way of reconfiguring monetary governance, rather than a purely technical adjustment.

Drawing on Polanyi's concept of fictitious commodities, the article understands labour and money as institutional realities that predate market exchange and cannot be fully governed by self-regulating market mechanisms, without generating processes of degradation and social dislocation (Polanyi 1944). The expansion of market logic into domains such as care, education and social reproduction has intensified these tensions, extending commodification into spheres essential for collective wellbeing. Against this background, the Twin Money proposal articulates a triple institutional shift: the partial de-commodification of labour, the de-commodification of money itself, and the explicit monetisation of socially valuable work that remains structurally excluded from market remuneration.

This shift is achieved through the design of a monetary instrument in which the issuance of value is not linked to market exchange or opaque financial pro-

cesses, but to certified forms of socially valuable labour. By linking an abstract unit of account to institutional criteria of collective welfare, the proposal defines monetary value in relation to socially recognised forms of labour that contribute to the common good, including care work, community activities and other non-market practices with social and environmental relevance. This design introduces a monetary mechanism capable of addressing interconnected challenges faced by European societies, such as demographic ageing and the care deficit, ecological sustainability and environmental protection, technological change, and persistent inequalities in access to education, income and livelihoods.

At the level of economic coordination, the model also departs from price-mediated exchange as the sole organising principle of monetary circulation. Following Polanyi's (1957) distinction between forms of integration, Twin Money introduces a mechanism grounded in reciprocity rather than profit maximisation. TMy does not circulate indefinitely within a commodified monetary space; its circulation is purpose-bound and institutionally delimited, with the possibility of conversion into legal tender. In this sense, the proposal contributes to ongoing debates on how monetary infrastructures themselves can function as instruments of public policy, shaping access to resources and enabling alternative forms of social inclusion.

Beyond the specific design of Twin Money, the article advances a relational and regenerative conception of sustainability by drawing on Simmel's analysis of money as a form of social mediation and abstraction. From this perspective, monetary institutions do not merely facilitate exchange but structure how economic activities are valued, how access to income is organised, and how livelihoods are sustained over time. Sustainability is thus conceptualised not as an external environmental objective or an efficiency problem, but as an institutional property of how value, labour and livelihoods are organised over time within biophysical constraints.

According to Simmel (2013/[1900]) the article shows how monetary systems can expand individual autonomy while simultaneously disconnecting economic coordination from its social and material foundations. The theoretical contribution to sustainability studies lies in demonstrating that monetary design is not neutral with respect to long-term social and ecological outcomes.

At the same time, the proposal raises important questions that require further theoretical and empirical exploration. Future research should examine the institutional requirements necessary for implementing a parallel currency such as Twin Money, including governance structures, certification procedures and mechanisms of democratic accountability. Experimental and comparative analyses could explore potential sources of resistance, unintended consequences and interaction effects with existing social transfer systems. Further work is also needed to clarify which activities would qualify as socially valuable labour, according to which criteria, and how ecological sustainability considerations

could be incorporated into certification processes without reducing them to technocratic indicators.

By foregrounding monetary design as a sustainability-relevant institutional choice, this article seeks to open a research agenda at the intersection of monetary sociology and sustainability studies. In doing so, it argues that rethinking money is not only a matter of economic reform, but a necessary step towards understanding how societies can reorganise social reproduction, value and inclusion in the face of deep socio-ecological transformations.

## References

- Andresen, Trond (2019). Initiating a parallel currency in a euro crisis country. Why it would work. *Modern Monetary Theory and its critics*, 89:23–31.
- Bazzani, Giacomo (2020). *When Money Changes Society*. Wiesbaden: Springer
- Bazzani, Giacomo (2025): Dinero diverso, libertades diversas: infraestructuras monetarias para la solidaridad y la sostenibilidad medioambiental. *Revista Española de Sociología* 34(2). Doi: 10.22325/fes/res.2025.259
- Berlin, Isaiah (1997): *Dos conceptos de libertad y otros escritos*. Madrid: Alianza Editorial.
- Birnbaum, Simon (2015): *Basic income reconsidered: Social justice, liberalism, and the demands of equality*. Palgrave Macmillan.
- Braun, Benjamin (2016). Speaking to the people? Money, trust, and central bank legitimacy in the age of quantitative easing. *Review of International Political Economy* 23(6): 1064–1092. Doi: 10.1080/09692290.2016.1252415
- Caliskan, Koray (2020). »Data money: The socio-technical infrastructure of cryptocurrency blockchains«. In: *Economy and Society* 49(4), pp. 540–561. Doi: 10.1080/03085147.2020.1774258
- Caliskan, Koray (2023): *Data Money: Inside Cryptocurrencies, Their Communities, Markets, and Blockchains*. Columbia University Press.
- Carruthers, Bruce/Babb, Sahra (1996). »The colour of money and the nature of value: Greenbacks and Gold in Postbellum America«. In: *American Journal of Sociology* 101(6), pp. 1556–1591.
- Catton, William/Dunlap Riley (1980). »A new ecological paradigm for post-exuberant sociology«. In: *American Behavioral Scientist* 24(1), pp. 15–47.
- Desan, Christine (2014): *Making money. Coin, currency and the coming of capitalism*. Oxford University Press.
- Dodd, Nigel (2014): *The social life of money*. Princeton University Press.
- Dunlap, Riley/Catton William (1979). »Environmental Sociology«. In: *Annual Review of Sociology* 5 (1), pp. 243–273. Doi: 10.1146/annurev.so.05.080179.001331 .
- Dyson, Ben/Hodgson, Geoffrey/van Lerven, Frank (2016): *Sovereign money: An introduction*. London: Positive Money.
- European Central Bank. (2015). »Virtual currency schemes – a further analysis«. <https://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemesen.pdf> (last access on 06.03.2025)
- Eurostat. (2024). »Households – statistics on income, saving and investment«. [https://ec.europa.eu/eurostat/statistics-explained/index.php/Households\\_-\\_statistics\\_on\\_income%2C\\_saving\\_and\\_investment](https://ec.europa.eu/eurostat/statistics-explained/index.php/Households_-_statistics_on_income%2C_saving_and_investment) (last access on 06.03.2025)
- Folke, Carl (2006). »Resilience: The emergence of a perspective for social–ecological systems analyses«. In: *Global Environmental Change* 16(3), pp. 253–267. Doi:10.1016/j.gloenvcha.2006.04.002
- Folke, Carl/Carpenter, Stephen/Walker, Brian/Scheffer, Marten/Chapin, F. Stuart/Rockström, Johan (2010). »Resilience thinking: Integrating resilience, adaptability and transformability«. In: *Economy and Society* 15(4), pp. 20.

- Krause, Max J./Tolaymat, Thabet (2018). »Quantification of energy and carbon costs for mining cryptocurrencies«. In: *Nature Sustainability* 1(11), pp. 711–718. Doi: 10.1038/s41893-018-0152-7
- Haldane, Andrew (2016). »The great divide. Speech, Bank of England«. <https://www.bankofengland.co.uk/-/media/boe/files/speech/2016/the-great-divide.pdf> (last access on 14.03.2025)
- Ingham, Geoffrey (2004): *The nature of money*. Polity Press.
- Ingham, Geoffrey (2018). »A critique on Lawson's social positioning and the nature of money«. In: *Cambridge Journal of Economics* 42, pp. 837–850.
- Ingham, Geoffrey (2020): *Money*. Polity Press.
- Ingham, Geoffrey (2025). »Is all money credit and is all credit money? Lawson revisited«. In: *Cambridge Journal of Economics* 50(1), pp. 1–14. Doi: 10.1093/cje/beaf016
- Isaacs, Gilad (2016). »Alternative forms of finance: A literature review«. In: FESSUD-Financialisation, Economy, Society and Sustainable Development Working Paper Series, No. 170.
- Marx, Karl (1999/[1867]): *El Capital Vol.1*. Fondo de Cultura Económica.
- Massó Matilde/Shevchenko Anastasiya/Abalde Bastero, Nazaret (2021). »Technological and socio-institutional dimensions of cryptocurrencies. An incremental or disruptive innovation?«. In: *International Review of Sociology* 31:3, pp. 453–469. Doi: 10.1080/03906701.2021.2015981
- McLeay, Michael/Radia, Amar/Thomas, Ryland (2014a). »Money in the modern economy: An introduction«. In: *Bank of England Quarterly Bulletin*, Q1.
- McLeay, Michael/Radia, Amar/Thomas, Ryland (2014b). »Money creation in the modern economy«. In: *Bank of England Quarterly Bulletin*.
- Mitchell, William/Watts, Martin (2005). »A comparison of the macroeconomic consequences of basic income and job guarantee schemes«. In: *Rutgers Journal of Law & Urban Policy* 2(1), pp. 64–94.
- Noguera, José Antonio (2007). »Why left reciprocity theories are inconsistent«. In: *Basic Income Studies*, 2(1). Doi: 10.2202/1932-0183.1056
- Ostrom, Elinor (2009). »A general framework for analyzing sustainability of social–ecological systems«. In: *Science*, 325(5939), pp. 419–422. Doi: 10.1126/science.1172133
- Polanyi, Karl (1944): *The Great Transformation: The Political and Economic Origins of Our Time*. New York: Farrar & Rinehart.
- Polanyi, Karl/Arensberg, Conrad/Pearson, Harry (Eds.). (1957): *Trade and market in the early empires: Economies in history and theory*. Glencoe, IL: Free Press
- Positive Money (2012). *Sovereign money: Paving the way for a sustainable recovery*. London: Positive Money. <https://www.datocms-assets.com/132494/1717793629-sovereign-money-final-web.pdf> (last access on 14.03.2025)
- Schumpeter, Joseph (1994/[1954]) *History of economic analysis*, London, Routledge.
- Segall, Shlomi (2005). »Unconditional welfare benefits and the principle of reciprocity«. In: *Politics, Philosophy & Economics*, 4(3), pp. 331–354. Doi: 10.1177/1470594X05056607
- Simmel, Georg (2013/[1900]): *Filosofía del dinero*. Capitán Swing Libros.
- Simmel Georg (1968/[1911]): *The conflict in modern culture and other essays*. New York: Teachers College Press.
- Smithin, John (2003): *Controversies in monetary economics*. Edward Elgar.
- Sousa, Felipe (2025). »Monetary Theory of Production: Revolutionary or Not Microfounded?« In: *Review of Political Economy*, pp. 1–30. DOI: 10.1080/09538259.2025.2596079
- Tàbara, J. D. (2002). »Sustainability culture«. In: *Papers de Sostenibilitat, Institut Internacional de Governabilitat*. Barcelona: Institut Internacional de Governabilitat de Catalunya (IIGC)
- Tàbara, Joan David (2023). »Regenerative sustainability: A relational model of possibilities for the emergence of positive tipping points«. In: *Environmental Sociology*, 9(4), pp. 366–385. Doi: 10.1080/23251042.2023.2239538
- Tcherneva, Pavlina (2020): *The case for a job guarantee*. Polity Press.
- Van Parijs, Philippe/Vanderborght, (2017): *Basic income: A radical proposal for a free society and a sane economy*. Harvard University Press.

- Van Parijs, Philippe (1995): *Real freedom for all*. Clarendon Press.
- Vigna, P., & Casey, M. (2015): *The age of cryptocurrency*. Picador.
- Weber, Beat (2016). »Bitcoin and the legitimacy crisis of money«. In: *Cambridge Journal of Economics*, 40(1), pp. 17–41.
- Weber, Beat (2018): *Democratizing money: Debating legitimacy in monetary reform proposals*. Cambridge University Press.
- White, Stuart (2000). »Social rights and the social contract: Political theory and the new welfare politics«. In: *British Journal of Political Science*, 30, pp. 507–532.
- White, Stuart (2003): *The civic minimum*. Oxford University Press.
- Youel Simon (2024): *The fiscal benefits of a digital pound*. London: Positive Money. <https://www.datocms-assets.com/132494/1717791494-positive-money-the-fiscal-benefits-of-a-digital-pound-3.pdf> (last access on 14.03.2025)

**Address:**

Assoc. Prof. Matilde Massó, Ph.D, University of A Coruña  
Department of Sociology and Communication Sciences  
15071 A Coruña, Spain  
ORCID: 0000-0003-3163-7023  
m.massó@udc.es