

ORIGINAL ARTICLE

Crisis of Economic-Business Formalism and Fiat Monetae Trap: A Proposal for Heterodox Digital Management and Alternative Money

Crisis del formalismo económico-empresarial y la trampa fiat monetae: Propuesta de gestión digital heterodoxa y dinero alternativo

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Abstract

Why the econometric formalism of the neoclassical synthesis doesn't work in the digital economy and how to undertake private initiatives to overcome the financial crisis based on fiat currency? Using heterodox theoretical and methodological frameworks, this paper offers a review of the main changes resulting from digitalization, which have revealed the flaws in mainstream approaches and how to overcome them by reviewing the theory of money and the practice of social-business digital currencies (SBDCs). The main goal is how to show the advantages to use the SBDC, as alt-money (private, participatory, and decentralized money), that promotes the transactions and it motivates agents to be more productive and autonomous, while also it helps in the coordination of a spontaneous order that improves social-environmental recompenses.

Keywords: heterodox digital management; alt-money; classroom experience-based learning; technovation; social-business digital currencies; corporate social responsibility

JEL-Classification: B5; J8; K0; N3; O15; Z1.

Resumen

¿Por qué el formalismo econométrico de la síntesis neoclásica no funciona en la economía digital y cómo puede emprenderse privadamente para superar la crisis financiera derivada de la moneda fiat? Mediante los marcos teóricos y metodológicos heterodoxos se ofrece aquí una revisión de los principales cambios derivados de la digitalización, que han puesto de manifiesto los fallos de los planteamientos mainstream y cómo superarlos con la revisión de la teoría del dinero y la práctica con monedas digitales socio-empresariales (MDSE). El objetivo principal del estudio, es mostrar las ventajas del empleo de MDSE, como dinero alternativo (privado, participativo y descentralizado), que sirva para promover más intercambios y motivar a los agentes a ser más productivos y autónomos, a la vez que se facilita la coordinación de un orden espontáneo que redunde en el beneficio socio-ambiental.

Palabras clave: Gestión digital heterodoxa; dinero alternativo; aprendizaje basado en experiencia de aula;

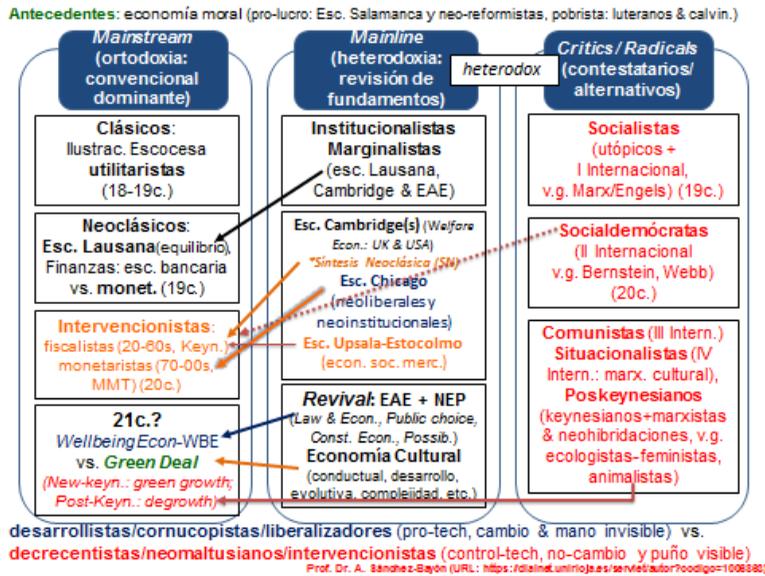
tecnovación; monedas digitales socio-empresariales; responsabilidad social corporativa
Clasificación-JEL: B5; J8; K0; N3; O15; Z1

1. Introduction of the crisis of economic-business formalism and its alternative management

With the triumph of formalist positivism in the social sciences, rather than seeking knowledge, the aim is to confirm pre-established hypotheses (Escohotado, 2008). It seems as if fundamental theory (principles that expose and explain complex social phenomena) has been abandoned, focusing instead on the purely applied dimension (measuring and interpreting database results). Thus, economics is no longer cultivated, but econometrics; nor sociology, but sociometry; and even less so politics, but statistics, etc. (Sánchez-Bayón et al., 2023 and 2024). This is not only a problem of the denaturalization of the social sciences to identify them with the natural sciences and engineering (Sánchez-Bayón, 2022a-c and 2025), but also distances the social sciences from their perception and management of the underlying social reality (Sánchez-Bayón, 2020a and 2025a). This problem has worsened following the Great Recession of 2008, as the economy, its study, and its professional practice are in a continuous crisis, urging a review of approaches (Sánchez-Bayón, 2022a-b and 2025): What is the reason for such a crisis and the lack of clear alternatives? These serve as questions to initiate the diagnosis that contextualizes the need for a classroom experience such as the one proposed here: Why is there university discomfort and distrust with their economics studies to manage reality? (Castaño, 2001; Coyle, 2012; Pühringer and Bäuerle, 2018). Why do students consider their learning to be autistic, fragmented, and poorly connected to changes in reality and their professional future? (PAE, 2000; Alcorn and Solarz, 2006; Torbet, 2012). Is the digital economy taught and is there training in entrepreneurship in technological innovation or technovation? (Sánchez-Bayón et al., 2024a-b and 2025a). Why is financial training and practice disconnected from reality? Is money studied beyond the fiat monetae trap? How can financing be obtained to avoid starting businesses by going into debt or to obtain a real and sustainable store of value? (Huerta de Soto et al., 2021; Sánchez-Bayón et al., 2025b). Is this economic crisis spreading to business and the business and administration sciences? (Sánchez-Bayón and Trincado, 2021a-b). To ground the diagnosis of the ongoing economic and business crisis, its study, and its professional practices, it is worth specifying that it is not the economy as a whole that is at issue, but rather the imposed academic monopoly (as a mainstream or orthodox version) of the neoclassical-SN synthesis (Beker, 2010; Coyle, 2012; Sánchez-Bayón, 2021a-c, 2022a-d, and 2025; Miragaya-Casillas et al., 2023). Its excessive formalist reductionism and its associated problems are spreading to other fields and related sciences (such as business sciences, administration, management, tourism, and others). Is there any way to solve this problem? (Yeunglamko, 2011). To begin to answer such questions, the starting point offered is the recognition of why the SN monopoly is considered exhausted, with its state welfare economy model-EBE (see table 1a-b), and financing via the fiat monetae trap (or the reductionism of money to a currency considered as a redistributive public good and disconnected from subjective value, backed only by an official seal and with the risk of inflationary expansions, repression of savings, etc.). All of this was designed for a massive industrial capitalism (focused on the production of replicable goods), formulated academically in the interwar period (by interventionist schools such as Cambridge and Stockholm, see Figure 1; Pigou, 1920; Cassel, 1923) and implemented politically after World War II (as a mixed system or state capitalism), described as a social market economy - SME (originally "Soziale Marktwirtschaft", Eucken, 1948; Müller-Armack, 1953; Karsten, 1985; Goldschmidt, 2004). SN's proposal sought to take theory for granted (to avoid disputes between schools, Sánchez-Bayón and Arpi, 2024) and focus on applied economics of an econometric nature (with a formalist positivism of replicating technicians at the service of States, international organizations and transnational corporations, and not to promote creative economists); In this way, economics has been distanced from the social sciences, seeking to bring it closer to the natural sciences and engineering (Mankiw, 2006). Thus, a type of economics (an educational monopoly), the NS economics, has been taught, based on the modeling and resolution of given problems (thus training replicating technicians,

managers of an economy in equilibrium/rest and of uniform rotation, Mises, 1949), instead of promoting critical-creative learning that is attentive to changes in the underlying social reality (Sánchez-Bayón et al., 2024a-b and 2025). Therefore, a hermeneutical turn and a Copernican revolution in economics and its study are urgently needed (Sánchez-Bayón, 2020a-c, 2021a-c, 2022a-d and 2025).

Figure 1. Hermeneutical turns and Copernican revolutions in Economics and its study



Source: own elaboration (based on Sánchez-Bayón, 2020a-c, 2021a-c and 2022a-d).

The exhaustion of SN and its EBE model (funded via fiat monetae) can be seen not only in the aforementioned student discontent in the classroom (calling the economics taught autistic, PAE, 2000; Castaño, 2001), but has also been evidenced by the poly- and permacrisis situation (WEF, 2023). It turns out that after the end of the Great Moderation (Bernanke, 2004), a series of crises have followed: the subprime or subprime mortgage crisis of 2007, the Great Recession of 2008, the carry-trade or financial bicycle crisis of 2009-10, the public debt crisis of 2011, Domenech et al., 2024a-b). Given the crisis in the economy, its education and its professional practice, given its lack of attention to the major transformations in the underlying social reality resulting from globalization and digitalization since the 1990s - perhaps due to their difficulty in modeling and preferring their consideration as exogenous elements to the analysis of SN - the most outstanding changes leading to the transition between models are summarized below (see table 1 - 2).

As has been diagnosed, with the increasing frequency and acceleration of technological innovation or technovation changes (exponentially, according to Moore's principle, 1965, and corroborated since the end of 2022 with the emergence of artificial intelligence, Sánchez-Bayón et al, 2024 and 2025), it can be seen that the world and our reality are being completely transformed, becoming increasingly digital and with other types of relationships (Valero et al, 2018; Sánchez-Bayón, 2017 and 2020a), even changing work and business culture (Sánchez-Bayón, 2019a-d and 2020a-b), and consequently the notion of wealth and well-being (Sánchez-Bayón et al, 2024a-b). Now, is there any way to take a leading role in the process of change? (Wolff, 2022) How can we adapt and become digitally active, not merely digitally passive or accepting? (see Table 1b; Sánchez-Bayón, 2020a-b and 2021a-b). Can the legal and reductionist monopoly on fiat money sustained by the National Security and its EBE be broken in order to restore the rest of economic agents' ability to create money again? (Huerta de Soto, 1998). Could we return to the culture of plural money as a system of variable geometry prior to the State and its fiat trap? (Rothbard, 1962 and 1976). This work aims to teach students to

Table 1. Main changes after globalization and digitalization

a) eras (and forms): from predominance of nation-state (design in separate squares) to global-village coordination (in concentric circles);
b) worlds: from physical to virtual; from Atlantic world to transpacific area;
c) revolutions: from 4th revolution (mobile and exponential technology) to 5th (singularity);
d) wealth: from material domain (production and acquisition of goods) to immaterial tendency (happiness and access to experiences);
e) economy: e1) system (from industrial and developed capitalism to talent capitalism); e2) model (neoclassical synthesis and its state welfare economy-WSE to heterodox synthesis and its personal welfare economy-WBE); e3) activity (from media-driven and focused on Macroeconomics with instruments such as GDP to finalist and focused on Microeconomic review with indicators such as HDI or GDH; from static controlled sectors to dynamic coordination networks); e4) culture (from bureaucratic corporations to agile communities); e5) labor relations (from replicating technicians or human resources/labor to talented collaborators or <i>knowmads</i>).

Source: own elaboration (based on Sánchez-Bayón, 2016, 2017, 2019a-d and 2020a-b)

reflect on how to take advantage of digitalization to generate greater wealth and well-being in their organizations and communities, by stimulating motivational measures and becoming more productive and autonomous, also achieving alternative financing to fiat currency and tending towards zero marginal cost (Sánchez-Bayón and García-Ramos, 2021; Sánchez-Bayón and Trincado, 2021a-b). Unlike other previous works of contextualization and diagnosis on the transformations due to digitalization and exhaustion of SN and its EBE (Andreu et al, 2019; González et al, 2019; Sánchez-Bayón, 2019a-d; Valero et al, 2018; Miquel et al, 2025), an experience-based learning exercise in the classroom-ABEA is offered here, through the critical-creative analysis of a real case, to which economic foundations of exploitation are applied and thus serving as a guide for future digital entrepreneurship practices (Sánchez-Bayón et al, 2024a-b and 2025a). The case chosen for the occasion has been the improvement of well-being (by promoting motivational measures, increasing purchasing power, more instruments to exchange and satisfy needs, achieving greater autonomy reflected in time and freedom, etc.), through the implementation of alternative money (alt-money, see figure 3), such as social-business digital currencies (SEDCs) – distinguishing them from local social currencies. In this way, not only is a case of a concept used to digitally educate and train, but it is also used to renew theoretical and methodological frameworks, refuting the postulates of SN and its EBE, with special attention to its monetary deviation with the fiat monetae model since 1971 (based on a monetary reductionism of legal monopoly on a public good such as state currency, without quality collateral or regression to a real intrinsic value, in addition to inducing inflationary expansions and the monetization of debt, with its consequent boom-recession cycles Alonso et al, 2024; Sánchez-Bayón et al, 2022 and 2023a-c).

Therefore, here is a sample of human action in the digital economy to improve labor relations and business culture, via a review of monetary theory with MDSE, and thereby increase the wealth and well-being of those communities and organizations that adopt the experience presented and explained here (aimed at achieving greater productivity and autonomy according to the subjective assessment of each participating agent – such as the ultimate goal of access to more time and freedom – and not directed by monetary policies as proposed by SN and EBE).

2. Materials and methods

2.1 Review of theoretical and methodological frameworks

In contrast to mainstream approaches (SN and EBE, with fiat monetae monetary policies), all of this is designed to train replicating technicians who are experts in measurement. This work aims to stimulate the training of critical and creative entrepreneurs, called upon to improve the perception and management of underlying social reality; thus, it is advisable to turn to the help provided in this regard by heterodox theoretical and methodological frameworks (Sánchez-Bayón, 2021, 2022a-c, and 2025), especially those that combine the contributions of the Austrian School of Economics-EAE

Table 2. Comparison between paradigms and economic models

OLD PARADIGM (material economy-EM: mod. state welfare economy-WSE/EBE)	NEW PARADIGM (Digital economy (DE): gig economy/bowling model & personal well-being economy (WBE))
<p>Industrial and material (mechanistic) economics</p> <p>Masculine (hierarchical, competitive) Tangible and scarce (factory/office, goods) Objectification (money, overtime, qualifications, results orientation: hygiene measures) Workers: uniforms, Secondary sector, subordination (wage earner, heteronomous) Closed system (Montaigne's error): rigid and poor (bureaucratic, for one position) Labor relations and corporate culture: repetition, hierarchy, zero-sum game, and corporate/multinational concentration (metaphor: trains on rails) Macroeconomic and econometric study: mathematics: data fixation (Goodhart's law); rigidity between agents (principal agent SP)</p> <p>Simple and unidirectional relationships (B2C), single-business L/P and limited PPF (fixed costs) Atom (size and location of offices, warehouse stock, number of employees) Manufacturing (value added through the transformation of goods) Control management (correcting and monopolizing information) Results due to pressure and decisions made out of fear (dismissal)</p>	<p>Economics of knowledge and experiences (quantum)</p> <p>Feminine (holacratic, communicative) Virtual and abundant (mobile, connections, experiences) Humanization (well-being, leisure, talent, people orientation: motivational measures) Contributors: diverse, tertiary and quaternary sectors, choice (autonomy, responsibility) Open (autopoietic) system: flexible and abundant (creative and changing) Labor relations and corporate culture: innovation, participatory decentralization, coworking (metaphor: world of elephants and ants) Microeconomic study and CCM: dynamic processes (complex and interconnected social phenomena); plasticity between agents (main agent <i>entrepreneur</i>: entrepreneur+consumer) Complex and multiple relationships (B2C, B2B, P2P, etc.), multi-business C/P, variable PPF (heuristic) Bit (speed and on-demand, talented collaborators)</p> <p>Manufacturing (qualified service –concept/experiences– and greater value) Delegation management/coaching (rules and sharing information, experiences and knowledge) Results from projects and achievements, and decisions made out of love (for what I do, with whom, m-v-v: mission, vision, values)</p>

Source: own elaboration (based on Sánchez-Bayón, 2019a-d).

(Hoppe, 1995; Huerta de Soto, 2000; Zanotti, 2012) and the Neo-institutionalists-NEI (comprising Economic Analysis of Law, Public Choice, Constitutional Economics, Economic Sociology, etc., North, 1971, 1984 and 1990; Eggertsson, 1990; Field, 1999; Furubotn and Richter, 2005; Ostrom, 2005; Demsetz, 2008; Ménard and Shirley, 2012; Sánchez-Bayón, 2024a-c). This makes it possible to offer a mainline or foundational alternative (Boettke et al., 2016) to the conventional view of NS and EBE, since they are not only obsolete – as has been pointed out – but also suffer from repeated and aggravated errors, such as the Luddite fallacy and the fallacy of technological unemployment (Pettinger, 2021; Keynes, 1930; see problems detected and contextualization). The aforementioned mainline schools share methodological foundations, such as the reality principle (without romanticism or unavailable state black box), methodological individualism, the subjective theory of value, the non-neutral vision of money or public intervention, etc. An example of convergence and concretion is the combination of Mises's theorem on economic calculation (Mises, 1912 and 1949) and its extension with the Buchanan-Tullock theorems on the infinite agenda (Buchanan and Tullock, 1962; Anderson, 1986), thus allowing to expose and explain an evolutionary and complex social order (Hayek, 1988), and all this being applied to money and its theory (a revision of the Austrian theory of money – TAD, becoming the Austrian and neo-institutional theory of money – TANEID, with attention to alternative money, see figure 3 and table 4).

Regarding the teaching methodology used in this work, it is intended to go beyond problem-based learning (PBL) (Barrows, 1986 and 1996) and its later and more recent variants and applications (Navajas et al, 2014; Vizoso et al, 2016; Beagon et al, 2019; Pérez-Espés et al, 2022). Here, a variant of experience-based learning (EBL, Ruben, 1999) is offered, such as EBL, combining project management, case studies,

and learning experiences (Andresen et al, 2020; Handrianto and Rahman, 2018; van der Steen et al, 2017; Sánchez-Bayón et al, 2024a-b). This ABEA variant applied to MDSE (which is summarized here and for which keys are offered for its reproduction) is aimed at energizing the classroom (with gamification, flipped classrooms, cooperative learning, etc., Fortanet et al., 2013; Ballantine and McCourt, 2009; Bachiller and Badía, 2020) and empowering students as digital entrepreneurs.

The following provides a summary of the combined theoretical contributions and an outline of the problems identified and to be addressed in ABEA.

2.2 Review of theoretical and methodological frameworks

2.2.1 Return to the controversy between schools and approaches

Following what was stated in the introduction, and if social reality has changed so much due to globalization and digitalization, doesn't this transformation warrant a theoretical renewal (especially in economics), with its corresponding hermeneutic shift and Copernican revolution? To initiate this theoretical renewal, it is useful to return to the debates between schools of thought (which the SN attempted to settle under the pretext of avoiding conflicts between schools and thus advancing its consolidation as a formal science; Sánchez-Bayón, 2021a-c, 2022a-d, and 2025). As is well known, schools of economic thought can be divided in various ways (by validity, paradigms, etc., Sánchez-Bayón et al, 2023), but here the attitudinal classification regarding digital change and its hermeneutical turn is followed (Sánchez-Bayón, 2022e; Sánchez-Bayón et al, 2024c): developers or developmentalists (also called cornucopists or liberalizers, who currently happen to be the mainline or foundations heterodox, see figure 1) vs. degrowthers or degrowthists (also known as interventionists, who are part of the current mainstream or orthodoxy). According to this classification, developmentalists (including liberalizing schools, e.g. EAE, NEI), who have a positive vision (based on reality and favorable to being), defending free trade (and the law of association for specialization and international trade), technological advancement and entrepreneurship, with adaptive, private, participatory and decentralized proposals (being able to generate more wealth and well-being in the digital economy, see table 1b). In contrast, degrowthists (are interventionist schools, e.g. neo- and post-Keynesians, institutionalists, socialists), who have a normative vision (based on ought-to-be or value judgments about supposed failures to be corrected – it could be considered a revitalization of the naturalistic and/or Humean fallacy), defending state interventionism, technological control and wage employment, with restrictive regulatory proposals and resistance to change (neo-Luddite type, Wolff, 2021; Pettinger, 2021); This block constitutes the current mainstream (still based on interpretations of SN and EBE), advocating artificial scarcity as a mechanism of control and social design. According to degrowthists, the digital economy can only bring creative destruction (Schumpeter, 1942) and technological unemployment (Keynes, 1930). On the contrary, developmentalists defend a dynamic process of evolutionary adaptation (Hayek, 1988; Huerta de Soto, 2009), which allows all types of work that become obsolete to be replaced by new, increasingly creative jobs with better conditions (Sánchez-Bayón, 2020a, 2021b, 2022d & 2023).

Therefore, mainstream authors, based on the NS and its EBE, seem to prefer to resist change (of digitalization) rather than incorporate it, due to the high costs it entails (such as the effort of internalizing the modeling of digitalization and the services and experiences it offers, as well as its changing agents, etc., see tables 1a and 1b). This resistance seems to fit (by analogy) with the example of Mankiw (a neo-Keynesian reference and mainstream guide) on the resistance to change in menus, despite the clear indications of the variation in cycles and prices (Mankiw, 1985).

To focus the debate among schools and on digitalization and the economic and educational change in this regard, recent literature reviews and meta-studies serve as a minimum outline of the state of the art, such as the general ones (Cueva et al., 2024a-b), the longitudinal pre-COVID study by Purnomo et al. (2020), and post-COVID studies by Paul et al. (2023); as well as those with a micro focus such as Felicetti et al. (2024), and the macro study by Oloyede et al. (2023); in terms of edges and trends, it is worth highlighting Kollmann et al. (2022) or von Briel et al. (2021). However, among these mainstream or dominant thought studies (as opposed to the heterodox mainline or foundations, which

has been followed here, Boettke et al., 2016; Gaus, 2020; Sánchez-Bayón, 2022a-c), the assumptions that clarify the relevance of teaching experiences such as the one offered here, aimed at preparing for digital entrepreneurship, have not been taken into consideration.

2.2.2 *Model Change and Luddite Resistance*

Delving into the ongoing, resurgent controversies between schools, we raise the question of what recognition and adaptation to the model change entails, as well as its resistance (pro-SN degrowthers and opponents of change vs. critical-SN developmentalists and pro-digitalization). It turns out that—as has been pointed out—a large part of mainstream or orthodox academia (SN and EBE) and politicians and activists of the so-called social dialogue (of a neo-Luddite bent) are opposed to technological advances and to recognizing the digital economy as a reality, believing that this violates working conditions, leaving people jobless and increasing social inequalities (Bailey, 1998; Sale, 1996). Both current and previous Luddites (see Table 2) tend to confuse the obsolescence and expiration of professions with the disappearance of jobs; Rather than destroying net work, it tends to be reconverted (readjustment effect, Sánchez-Bayón, 2022e and 2023). According to previous experience (from other revolutions, see Table 2), it tends to coincide with and surpass the lead to the emergence of new jobs in emerging sectors (or simply revisiting traditional ones via digital), being the same more suitable for human creativity (e.g. from being a sharecropper with no limit on hours and with subsistence production to becoming an industrial worker with shifts and a stable salary -2nd industrial revolution-, going from being an office worker with fixed hours and income that allows for savings -3rd industrial revolution-, to professionals with financial freedom and freedom of schedules -4th industrial revolution-). In reality, the relationship between technological advances and labor well-being is not inversely proportional, but exponentially convergent: the more technological advances occur, the more global wealth increases (and therefore more income and benefits to enjoy) and the greater the convergence in the planetary standard of living, thus increasing the well-being of humanity and its life expectancy (which are two of the major components of the measurement of the world happiness index, already announced by Bentham and Malthus in the 19th century, its measurement beginning in the 1960s by the OECD, and worldwide with the UN since 2012: from gross domestic product (GDP) to gross national happiness (GNH) (popular level of happiness - beyond the human development index - HDI); from traditional capitalism to talentism; from the state welfare economy to that of personal well-being, etc. (Cubeiro, 2012; Rojas, 2014; VV.AA., 2012a-b; Frey, 2018; Sánchez-Bayón, 2020 and 2021; Cueva et al., 2024a-b). This phenomenon, by which artificial intelligence tends to surpass and replace humans in repetitive and tedious tasks - doing it even better -, in addition to processing more information and faster, is called singularity (Kurzweil, 2005), and its point of no return is expected for the year 2030 (coinciding with the rest of the planetary convergence plans, such as the UN Global Compact, the ILO Future of Work, the EU Green Compact, etc. - possibly being brought forward, after the acceleration with the COVID-19 crisis and lockdowns, García et al., 2021). In this sense, a paradigm shift and new measurement indices have been promoted from international forums and organizations (Sánchez-Bayón, 2020; Miquel et al., 2025), but There are still initiatives lacking from the companies themselves, as proposed here.

2.2.3 *Digital wellbeing paradoxes that TANEID and MDSE can solve*

Easterlin (1974 and 2010) already indicated and empirically demonstrated more than fifty years ago that state development and welfare solutions have a limit: once a certain level of growth and development was reached, it was difficult to improve general well-being (at least material well-being) - this was proven by the exhaustion of Keynesianism in the 1960s and the transition to developed or service capitalism in the 1970s (Sánchez-Bayón, 2020a). How then can this be managed and take advantage of digitalization? With digitalization, the conditions for the transition from one model to another are created (see Table 1b; Sánchez-Bayón, 2019a-d and 2021a-c): from a state-based welfare economy (EBE) (materialist, state-directed, and interconnected by it) to a personal well-being economy (WBE) (more immaterial, creative, as well as decentralized, and interconnected by digital technology). Interestingly, during the

Table 3. Comparison of revolutions and their socio-economic impact

Revolutions	Traits	Macro and social indicators
1st Rev. (1760–1870, Atlantic Europe)	Coal and steam engine; the shift from rural to urban workshops (particularly in the textile sector); civil contracts for the lease of services (based on agreed days and services); the advance of social classes and guilds is slowed.	Fewer than 1.2 billion people, with a global GDP per capita of less than \$ 1,000
2nd Rev. (1890-1950, in the English-speaking world)	Oil, electricity, and assembly lines; the shift from workshops to factories (particularly in the automotive sector); formal employment contracts (a single labor system); its progress is slowed by wars and state interventions (more legal verticality).	At the beginning of the 20th century, the world population was approximately 2 billion people, with a GDP per capita exceeding \$ 1,000.
3rd Rev. (1960–2008, in the West – Asian tigers)	Systematization and robotization; more nuclear and renewable energy; a shift from factories to capitalized techno-bureaucratic headquarters; localization of production and sales in markets, greater clash of resources and knowledge, with a diversity of civil and commercial, labor and functional contracts, etc. Its progress continues until state interventions (the golden age of EBE – the 1970s).	With the turn of the millennium, the world population was over 6 billion and its GDP per capita was approaching \$ 10,000
4th Rev. (2008–2030, planetary)	Globalization and programming (especially blockchain, since 2009) and smartphones; a shift from offices to the era of collaborative networks and shared experiences, with feedback; more cognitive capitalism (knowmads, prosumers), who can work remotely; it slows down due to financial crises and/or pandemics, which impact rigid labor relations. It is the stage of the emergence of supranational entities and OAGs (other global agencies) and artificial intelligence, which operates under machine learning.	Currently, there are more than 7.5 billion people on the planet, with a global GDP per capita exceeding \$ 14,000.
5th Rev. (2030 – on: with the singularity)	Artificial intelligence and automation. Challenge of paradoxes: 10 billion levos, Easterlin's happiness, etc.	The demographic transition is completed, with the population not exceeding 10 billion inhabitants (demographic minimum in the West) and convergence with developing countries (emerging vs. natural; longevous vs. healthy; baby boomers vs. millennials)

Source: own elaboration (based on Sánchez-Bayón, 2019a-c, 2020a-c and 2021a-c)

Great Recession and the sovereign debt crisis (with its consequent confirmation of loss of confidence in the fiat model), the techno-novation of blockchain emerged and with it innovative monetary experiences (Nakamoto, 2008a–b): given that with the fiat model the State has transformed money from an asset to volatile public debt and central bank liabilities, reducing it to a manipulable legal tender (a revitalization of the bastardization of currency denounced by Smith, 1776, and previously by the Salamanca School, Mariana, 1599).

Faced with the fiat trap we have been trapped in since 1971, when the Nixon administration took advantage of the month of August to declare the end of the 1944 Bretton Woods model (the gold-dollar standard), leading to: a) the end of the fixed gold-dollar convertibility (thirty-five dollars per ounce of gold) and the transition to a floating currency-currency system (with the dollar remaining the international reserve currency due to its link to oil and petrodollar transactions); b) a covert debt default and future renegotiations; b) the establishment of the fiat monetae model (denaturing money and reducing it to mere flexible legal tender); c) an increase in monetary expansions, debt monetization, and

fiscal repression (discouraging savings due to the loss of purchasing power), etc. Given this denaturing condition of money, ceasing to be an asset with its own value or collateral support, basically converted into a fiscal note on state debt, supposedly to sustain the EBE model and its fiscal illusion (without knowing how much it really costs, in addition to expanding dependence on said model), then, it will be understood that in the wake of the poly and permacrises following the Great Recession, the dispute over the theory of money between degrowthists and developmentalists (and even within them, see next point) was revitalized; the shame is that this dispute has barely reached the classrooms, hence the urgency of a work like this.

3. Results and discussion of classroom experience-based learning (ABEA) with socio-enterprise digital currency (MDSE)

First and foremost, the following reflections are urgent: Why is the subcategory of fiat currency confused with the species of money? If money has historically been an asset, why is it now considered a state debt? Is money created by the state or is it an evolving social institution? Is its centralized design possible, or is it the result of scattered trial and error? Is money the property of its issuer (who retains bare ownership, while the rest are merely users), or does it become full ownership once it is earned legally (through intra-commercial transactions and taxes paid)? If states cannot prohibit the free movement of their citizens, can they prohibit their money? To answer these and related questions, it is urgent to recover the economic theory used by the various schools of economics, beyond the SN and its EBE (with its fiat trap). In order not to overcomplicate the matter, this paper briefly compares the views of interventionist schools (pro-balance and state control, e.g., neo- and post-Keynesians, socialists) with liberalizing schools (pro-change and social entrepreneurship, e.g., Austrian school, neo-institutionalists); in this way, it is possible to contrast the vestiges of modern monetary theory (modern monetary theory – all three elements are questionable) held by interventionists, and currently embodied in CBDCs (central bank digital currency, Ozili, 2024), against the idea of an evolutionary social institution dependent on subjective valuation, as is the case with cryptocurrencies such as Bitcoin.

3.1 Rethinking money: digitalization to escape the fiat currency trap

Cryptocurrencies (originally named after their proponents: Nick Szabo, Wei Dai, Hal Finney, Dorian Prentice Satoshi Nakamoto, et al.—most of whom are self-proclaimed libertarians), or rather (for the purposes of this study) digital currencies, are private, participatory, and decentralized monetary units supported by electronic computing, and freely valued and used by their users. They can be exchanged as a means of payment through a network or electronic transaction system that does not require mandatory external financial intermediaries (state-level intermediaries such as notaries, registrars, civil servants, etc.), as all participants in the system are certified by the system (via blockchain techno-innovation). Regarding their origin and development, the following table provides a synopsis.

Empirical illustration shows that with each crisis (especially after the Great Recession of 2008), while fiat currencies deteriorate and private alternatives emerge in their place, this risk and uncertainty are also leveraged to advance plans for greater social control, as CBDCs are today: central bank digital currencies not only promote fiscal repression (discouraging savings and promoting consumerism and debt), but also financial control and censorship (see the recent case of Nigeria and its eNaira or Jamaica and its JamDex).

It turns out that, when rethinking money, to escape the fiat trap (given its denaturation and reduction to a mandatory state currency, as a public good with no value per se), it is therefore appropriate to turn to digitalization as a lever for transition. However, before addressing its theory and applications, it is worth paying attention to other current issues, given the coexistence of fiat with digital currency. As an example (see Figure 2): a) Cantillon effect (Mises, 1949; Huerta de Soto, 1998): as long as there is fiat, inflationary expansions can be carried out, which could be considered close to the counterfeiting/bastardization of currency –already mentioned– or the alchemy of the sorcerer's apprentice; b) Gresham's law: as long as fiat currency and digital currency have to coexist, the bad

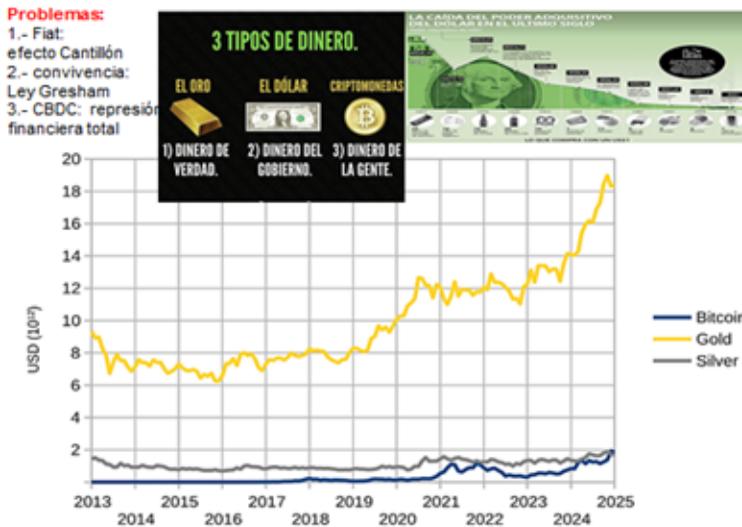
Table 4. Development of digital currencies.

States	Milestones and features	Relevant episodes
Background	Denationalization of money (announcement of non-national currencies and reprivatization, Hayek, 1976). Cover of The Economist (predicting the emergence of a currency that would displace national ones, VV.,AA., 1988).	Reference currency baskets are introduced, which will give rise to cases such as the ECU (predecessor of the euro and with which it was possible to operate via stock exchange interconnection systems).
Concept	The term cryptocurrency and its operation are introduced and consolidated (Dai, 1998).	Appearance of the <i>cypherpunks</i> mailing list and Wei Dai's B-Money system.
Paper	The first paper on Bitcoin is published (Nakamoto, 2008).	Satoshi Nakamoto promotes Bitcoin and its first transaction takes place on metzdowd.com.
Transactions	First real transaction with Bitcoin (May 22, 2010).	Pizzas were paid for with Bitcoins. NFTs were purchased with Ethereum.
Price	Bitcoin derivatives price (December 2017).	Bitcoin futures are traded on the CME and CBOE.

Source: own elaboration (based on Sánchez-Bayón, 2019a; Sánchez-Bayón and García-Ramos, 2021).

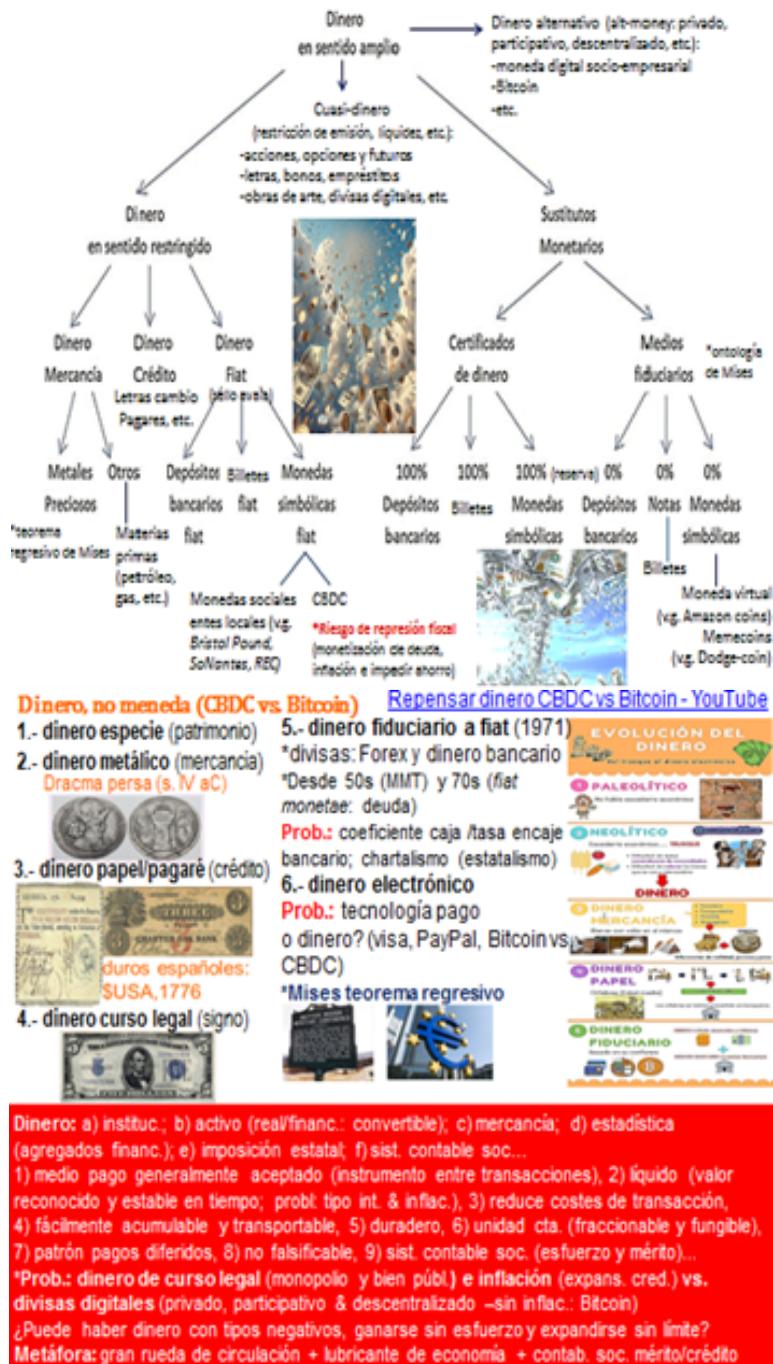
one will displace the good one, since people will keep what they can save with, trying to get rid of what loses value; c) CBDC: it is a poor copy of digital currency, because although it tries to imitate its technology (e.g. blockchain, Sethaput and Innet, 2023), it is still fiat currency, since it is in the hands of the State for its inflationary expansion, only that it is also programmable (conditioning what can be spent and what cannot; setting its validity periods, stimulating consumption and discouraging savings; etc.); d) function and value (see figures 2 and 3): between gold, fiat currency (e.g. dollar) and digital currency (e.g. Bitcoin), more or less all three monetary varieties serve to pay for transactions, but only gold is a store of value (Bitcoin is volatile due to the discrediting pressures from central and commercial banks - in favor of fiat currency or its CBDC variant -, plus speculative practices), and fiat currencies have lost almost 90% of their original issue value (e.g. it is not so much that there is a new real estate bubble, but that the dollar or the euro have lost their value with a scheduled inflation of at least 2% per year - according to mainstream postulates -, and with successive crises they have lost more than 6% per year, while the square meters of a home continue to cost the same ounces of gold as at the beginning of the year 2000).

Figure 2. Money evaluation during the fiat trap and its escape



Source: own elaboration (based on Sánchez-Bayón and García-Ramos, 2021).

Figure 3. Rethinking and reprivatizing money to overcome the fiat monetar trap



Source: own elaboration (based on Mises, 1912 and 1949; Huerta de Soto, 1998; Hülsmann, 2012; Ammous, 2018).

To rethink the theory of money and understand its applications, it's worth considering a school of thought that has delved considerably (compared to others) into the ontology and epistemology of money: the Austrian theory of money (ATM). The main contributions are summarized in the following

table 5

Table 5. Most relevant doctrinal contributions of TAD

Menger (evolutionary social institution): <i>Grundsätze der Volkswirtschaftslehre</i> , 1871 (chapters VII and VIII, plus appendix); <i>Untersuchungen über die Methode der Sozialwissenschaften und der politischen Oekonomie insbesondere</i> , 1883 (Book 8, chap. 2); <i>Schriften über Geldtheorie und Währungspolitik</i> , 1886; <i>Die Kaufkraft des Geldens österreichischer Währung</i> , 1889; <i>Geld</i> , 1909.
Böhm-Bawerk (relation to prices, time preference and interest rates): <i>Kapital und Kapitalzins</i> , 1881-89; <i>Geschichte und Kritik der Kapitalzinstheorien</i> , 1884.
Mises (nature and types of money, plus its systematization): <i>Theorie des Geldes und der Umlaufmittel</i> , 1912; <i>Nationalökonomie: Theorie des Handelns und Wirtschaftens</i> , 1940; <i>Human Action</i> , 1949.
Hayek (spontaneous order and denationalization of money): <i>Denationalization of Money: The Argument Refined. An Analysis of the Theory and Practice of Concurrent Currencies</i> , 1976.
Subsequent developments: Salerno, 1994 and 2010; Huerta de Soto, 1998; Hülsmann, 2007 and 2012; Murphy, 2008 and 2011.

Source: own elaboration

There are two expressions that explain why TAD has not caught on as it should in English-speaking academia and therefore in the mainstream (Sánchez-Bayón, 2021a and 2025): one is the Italian “traduttore, traditore” [translator, traitor], and the other is the English “lost in translation”. The problem arose with the translation carried out in 1934 at the London School of Economics of Mises’s 1912 German work: *Theorie des Geldes und der Umlaufmittel* [Theory of Money and Fiduciary Media]. *Umlaufmittel* refers to circulating/circulating or fiduciary media, but since the concept was unknown and clashed with the British utilitarian tradition since Ricardo and Stuart Mill, Harold E. Batson’s translation, with Lionel Robbins’ approval, was replaced by *The theory of money and credit* (Rothbard, 1981 and Hülsmann, 2007 (p. 217, note 7) and 2012). A similar error has occurred with Mises’s regressive theorem of money, causing a split within EAE: authors who do recognize digital currencies as money (given their subjective value) vs. those who deny that digital currencies are money (due to a reductionism of the regressive theorem, considering them mere speculation). To overcome this tension, the NEI’s support is used here, which is why we discuss a revision of TAD as TANEID and MDSE as part of alternative money. This shifts the trade-off between the regressive theorem versus subjective value and marginal utility to a copulative condition, which also reduces costs, increases benefits and satisfaction, and improves efficiency and institutional quality (all of which is better understood with the application presented below).

3.2 Using digital currencies to improve employee compensation

The advantages of digital currencies as a medium of exchange in the financial and monetary system are, first and foremost, related to the cost and efficiency of transactions. Technology gives digital currencies a high level of cost efficiency in international transactions compared to traditional instruments, as they allow more transactions to be made in less time and without mandatory surcharge intermediaries (thanks to blockchain techno-innovation). According to Enciso (2018), cryptocurrencies contribute to the economic development of countries because they become an alternative stock exchange with costs that reach a 50% reduction compared to the traditional stock exchange. Digital currencies even allow for the expansion of the foreign exchange market, adding other Fintech operations to the FOREX market (e.g., digital currency quotes, EFTs).

Among the contributions of digital currencies, it is worth highlighting (Glaser et al., 2014; Lakomski-Laguerre and Desmedt, 2015; Berentsen, 2018; Lansky, 2018; Enciso, 2018; Gallardo et al., 2019; Zheng et al., 2017; Bindseil, 2019):

First, its ability to transfer value with or almost no intermediary fees. As Marc Andreessen, CEO of the venture capital firm Andreessen-Horowitz, said about Bitcoin: you introduce value into the system, transfer the value, and the recipient receives the value, without the need for authorization, and

in many cases, without fees. The last advantage is extremely important. Bitcoin is the first internet payment system where transactions can be made with or almost no fees. Traditional transaction systems charge fees of 2/3%, and this is only in developed countries. In many other countries, modern payment systems do not exist or the fees are much higher (Andreessen, 2014).

Secondly, one of the main advantages relates to its decentralized nature, meaning that they are not controlled or administered by any government or public sector (including central banks). Decentralization lies in the open nature of its protocol code, which means that the programming code is freely available for access and redistribution. The nature of the system is based on the so-called collaborative economy, since any collaborator (with hardware) can process transactions on the blockchain and obtain remuneration for doing so (what we previously called mining). The reason for this comparison is that, just as in a mine, the resources available for extraction decrease as the mine is exploited; thus, the Bitcoin algorithm is designed so that all its units are considered obtained before the year 2140.

The third advantage relates to its supposed infallibility (Lakomski-Daguerre and Desmedt, 2015): any attempt to manipulate transactions results in a computer block incompatible with the previous and subsequent ones. For this reason, cryptography advocates refer to these systems as "trustless," because it means replacing the trust of traditional currency's public collateral with computer code. Much of the doctrine describes blockchain as the "trustworthy protocol," transforming the internet beyond the network of information and into a network of business and money (Mougayar, 2016). The emergence of this technology stems from the loss of trust in businesses and other institutions following the 2008 financial crisis (as indicated by the Edelman Trust Barometer, 2020).

The fourth advantage for economic agents relates to the privacy/autonomy of transactions, their anonymous and voluntary nature (compared to the traceability of fiat currencies, with their serial numbers, electronic payment instruments, etc.). The right to privacy and anonymity arouses enormous interest in economic and commercial transactions and the world in general. There are many examples of monitoring by public government entities to prevent criminal and terrorist activities, and by marketing companies to profile individual users. It is useful to clarify the distinction between privacy and anonymity in the context of financial transactions (Gallardo et al., 2019). Anonymity refers to the lack of knowledge of the actor or actors involved. Privacy refers to the unknown product and amount of the transaction, but not the actors involved. With regard to cryptocurrencies, transactions are anonymous, identities are not recorded, but each transaction is recorded in a public electronic ledger. The anonymity of cryptocurrencies alters regulatory capacity in the financial sector and can therefore be used to pay for criminal transactions and/or tax evasion.

The fifth application that improves the payment system is that with cryptocurrencies, all transactions are made person-to-person; there are no mandatory intermediaries. It is a peer-to-peer (P2P) system, which reduces costs, obstacles, and time.

The sixth advantage relates to the near immediacy of transactions compared to fiat currencies. This project of technological advancement in payment methods would be in line with technological and energy development, economic globalization, and the necessary agility of current transactions.

Therefore, the rise of e-commerce and the financial crises following the Great Recession gradually led to the introduction as a means of payment of the idea conceived in 1998 by Wei Dai on the "cypherpunks" email list, where he proposed the idea of a new type of money that used cryptography to control its creation and transactions (see Table 3).

By applying TANEID, the options for multiplying efficiency and reducing costs and barriers allow for significantly increased profits and satisfaction.

3.3 CSR 3.0 case study: advantages of digital social and business currency.

Given the development of digital currencies, what relationship do they have with the personal well-being economy and its management of happiness and talent, and how can they serve as a case for CSR 3.0? To answer this question, let's first briefly clarify the evolution of CSR and its three stages, then provide examples of CSR 3.0, and finally highlight the advantages and benefits of CSR in accordance

with TANEID.

The global consecration of CSR (beyond the business sphere, reaching all types of corporations, including NGOs or the public sector) took place with converging initiatives of the United Nations (e.g. the millennium agenda of its General Secretariat, the future of work of the ILO), all of which was harmonized with the global compact and the millennium goals (announced by K. Annan in his speech of 31 January 1999 in Davos, during the World Economic Forum meeting, and formally established on 26 July 2000, and later giving way to the sustainable development goals – SDG). Since then, minimum global standards have been set in the relationships between people, communities and the environment (since this review it has been extended to 6P: profits, people, planet, prosperity, peace & partnership), but not from corporatist, fascist or woke ideologies (Sánchez-Bayón, 2018; Sánchez-Bayón et al, 2022) – as has been attempted by large investment institutions and their managers, with ESG funds, such as BlackRock with Larry Fink, Vanguard with Greg Davis, State Street with Yie-Hsin Hung, JP Morgan–Chase with Jamie Dimon, etc., or large family fortunes such as the Rothschilds, Du Pont, Rockefellers, Morgan, Schwab, etc., see table 5 –, but as freely generated, coordinated knowledge that drives an extensive order, Hayek, 1988 – at least that was the case before multi-year plans such as Green The European Union’s Green Deal (García-Vaquero et al., 2024; Sastre et al., 2024). In addition, a network of local support networks has been established to deepen, expand, and disseminate this commitment. This has generated collaborative intelligence that has led to new concurrent and reinforcing initiatives (e.g., the World Economic Forum’s well-being alliance, Great Place to Work’s surveys and best practices).

Table 6. Largest financial institutions (ESG and fiat trap advisors and beneficiaries).

Nº	Fund	Market and matrix	Total assets (billions \$)
1	BlackRock	EE.UU.	8,5
2	Vanguard Group	EE.UU.	7,2
3	Fidelity Investments	EE.UU.	3,6
4	State Street Global	EE.UU.	3,5
5	J.P. Morgan Chase	EE.UU.	2,7
6	Goldman Sachs Group	EE.UU.	2,5
7	Allianz Group	Alemania	2,3
8	Capital Group	EE.UU.	2,2
9	Amundi	Francia	2,0
10	UBS	Suiza	1,84
11	BNY Mellon	EE.UU.	1,83
12	Legal & General Group	UK	1,44
13	Invesco	EE.UU.	1,40
14	Franklin Templeton	EE.UU.	1,38
15	Prudential Financial	EE.UU.	1,37
16	T. Rowe Price Group	EE.UU.	1,27
17	BNP Paribas	Francia	1,26
18	Northern Trust	EE.UU.	1,24
19	Morgan Stanley Inv. Mgmt	EE.UU.	1,23
20	Natixis Investment Managers	Francia	1,15

Source: own elaboration (based on FTC, 2022; Chen et al, 2022).

According to this heritage, it is possible to establish the following evolutionary categories of CSR (corporate social responsibility, which includes corporate social responsibility–CSR and recently also ESG compliance: environmental, social and corporate governance), in the transition towards WBE (tables 1a–b) and the happiness and talent economy model (Sánchez-Bayón, 2020):

- a) CSR 1.0: Typical of fledgling organizations (not because of their age, but because of their stage of development), with a CSR narrative focused solely on results and with little regard for employee hygiene measures (e.g., occupational risk prevention, adequate wages, and overtime pay). As such, CSR is understood in a marketing-like manner (publicized outwardly), which is why it is

outsourced to consulting firms or directly replicated from others, but it does not correspond to a company's own culture. It can be detected by its high-sounding rhetoric, its abuse of barbarisms (language borrowings), and its commitments that are difficult to verify (e.g., reducing the carbon footprint, helping a remote village).

- b) CSR 2.0: observable in established organizations, in terms of their market share, but which wish to make improvements, going beyond hygiene measures and initiating the promotion of motivational measures (those that encourage employees to improve and increase their productivity and commitment). Their CSR reflects local compliance (e.g., equality plans, codes of ethics, recycling programs) and aligns with global compliance (e.g., ESG criteria of zero emissions, carbon footprint, diversity and visibility of minorities and gender, animal welfare, etc.); it is supported by international quality certifications (from ISO standards to transnational alliance pacts), and they are beginning to participate in global transformation forums (e.g., Global Compact-UN). Thus, awareness of the importance of corporate culture is beginning to grow, so that it can be experienced and participated in on a sustained basis, with verifiable impacts and shared with others.
- c) CSR 3.0: mature organizations are emerging again, not because of their age, but because of their approach and level of development as they are companies prepared for the new business culture and labor relations, focusing on people and their motivation. Their CSR is local and easily measurable and verifiable, as it is based on measures that affect their social and natural environment. Thus, CSR ceases to be something that is done externally (as a mere attempt to improve the corporate brand, or diligent and transparent regulatory compliance), becoming something that is done internally (designed by and for employees, along with their families: a culture they feel part of and celebrate).

Temporarily speaking, CSR 1.0 dominated until the 2000s (although it persists in emerging organizations regardless of their age, as it is a matter of aptitude and attitude toward the happiness and talent economy); since the 2000s, thanks to international organizations and transnational forums, CSR 2.0 has been promoted. CSR 3.0, for its part, is the result of the creative destruction of the values crisis that occurred during the Great Recession of 2008. The companies that survived and improved did so thanks to their focus on talented employees and their involvement in the new corporate culture, based on a mission, vision, and values with which they identify and give their best (generating greater personal well-being, Sánchez-Bayón, 2019a-c; Sánchez-Bayón and García-Ramos, 2021).

As required by CSR 3.0 in its specific context, please consider the following example of a digital entrepreneurship experience with MDSE, which already links to digital social-business currencies. The original case is based on a case that occurred in the Basque Country (Spain) on March 5, 2019, when Fagor Industrial (a home appliance manufacturer) signed an agreement with Orbea (a bicycle company) offering employees a €200 bonus for the purchase of sports equipment and allowing them to go to work without a car. In this way, Fagor achieved the following positive CSR 3.0 results: a) it addressed the well-being and health of its employees by allowing them to cycle to work; b) it protected the environment by reducing emissions with the decrease in the number of cars at work; c) it improved the natural and social environment, since no new parking spaces were required (some existing ones could even be dispensed with), creating a larger green recreational area; d) increased the rest area for employees and the venue for business meetings, as well as meetings with employee families, etc. And all of this at almost no cost (with a marginal cost tending towards zero), only increasing profits: there was no need to spend on expanding the parking lot or on future meeting venues; the health insurance premium was reduced; there was not even a €200 bonus to pay, as it was part of the discount agreement with Orbea, which thus increased sales and cleared stock. In such a simple way, Fagor had created CSR 3.0 money. These practices are very common in insurance companies, which use a mobile app to count the steps taken each day, which translates into premium discounts and gifts.

Now, ABEA and MDSE aim to go deeper and offer the following improvements (in the form of guidelines) so that it can be extended to almost any organization focused on improving employee motivation (i.e., in the CSR 3.0 phase):

Shortage problem: lack of parking space.

Step 1: Instead of purchasing land (including land and building permits, a minimum of €200,000), an agreement is reached with companies that allow the rental of electric bicycles or scooters, which can be made available to employees and deducted from their expenses for accounting and tax purposes.

Step 2: Replacing private cars with electric vehicles not only helps reduce parking congestion but also reduces employee stress, serving as a more fun and healthy way for them to get to work.

Step 3: To encourage their use, they can be rewarded with MDSE for good personal well-being practices, such as leading a healthier lifestyle. This, in turn, can serve to reduce employee insurance premiums (due to being fitter and fewer and less serious accidents involving combustion vehicles and the proposed electric ones).

Step 4: By not having to purchase new land and reduce congestion in the current parking lot, there is now a place for celebrations, team building activities, and family get-togethers (e.g., barbecues, concerts, birthdays), so non-salary compensation begins to increase, but it also improves the quality of life.

Step 5: These practices and the increased employee satisfaction (since it does not only have to be limited to employees, but can also extend to suppliers, shareholders, etc.) can be reflected in the goodwill, easily increasing its amount by €100,000.

Step 6: The MDSE distributed for good practices can be exchanged in the company cafeteria or used to buy time (e.g., starting an hour later or leaving an hour earlier).

Step 7: MDSE issuance can be carried out with certified nominal promissory notes, which are canceled as soon as they are exchanged with Human Resources. However, to facilitate their distribution, they can now be converted into nominal notes thanks to serial numbering (handle type) until they are tokenized. In this way, employees increase their purchasing power without the risk of losing salary for tax reasons (e.g., a change in income tax bracket and higher withholdings, loss of subsidies and public aid due to salary increases), in addition to increasing their autonomy and well-being (by deciding how much greater work involvement they desire to achieve MDSE).

Thus, with experience amended and expanded, more and more companies are creating their own MDSE despite the strong restrictions of the fiat currency monopoly thus rewarding good coexistence practices and production results. This is valid for the company cafeteria and surrounding businesses, or for the purchase of reduced working hours, or any other form of flexible working. (This is done not only by the benchmark companies of the GAFA model Google, Amazon, Facebook [Meta] & Apple but also by those that have undergone a reconversion process, such as Kodak, and even a good number of the companies ranked by the consulting firm Great Place to Work (GPTW, Sánchez-Bayón and Trincado, 2021; Sánchez-Bayón, 2021a-d).

The practice of rewarding environmentally friendly behavior with virtual tokens is called "eco-friendly activities." It should be noted that CSR also affects public sector organizations, as more and more municipalities are rewarding their fellow citizens for their good practices with local social currencies. For example, in Viladecans (a municipality near Barcelona), part of the energy savings achieved were returned to residents in the local social currency Vilawatt to be spent on local commerce (Viladecans, 2020). This has also been done in other places, such as Brussels and its Eco Iris, and other successive cases. However, these local government social currencies are still just another variant of fiat monetae, as they depend on the seal of approval and there are no restrictions on their discretionary expansive issuance (thereby losing their function as a store of value).

Therefore, the use of digital social currencies is on the rise today thanks to blockchain technology and digital entrepreneurship (despite its early prediction in 1976 by Hayek or in 1988 by The Economist, see Table 3; Sánchez-Bayón and García-Ramos, 2021). This trend is present in all types of organizations leading the digital transition: those that bring benefits not only to direct collaborators (with the possibility of higher and better remuneration, as their purchasing power always increases, without the risk of greater tax pressure or inflation), but, as a matter of CSR 3.0, also benefit the common good: environmental, social, etc. (it is a positive externality, until its normalization in markets, which will be when the predictions of Hayek and the editors of The Economist are fulfilled).

In short, with MDSE not only are others better served, while each person achieves his or her own interest, as the free market and capitalism assume (Smith, 1776; Mises, 1949), but personal well-being and social projection are also improved (by having more financial instruments that favor exchanges and incentivize production, under the inspiration of motivational measures for greater participation, freedom and autonomy of economic agents).

4. Conclusions

At the beginning of this paper, we warned about the impact of digitalization and its profound changes on the underlying socioeconomic reality, giving rise to a paradox that challenges many of the approaches of mainstream academics (of state welfare economics) and neo-Luddite activists (opposed to technological advances), who believe there is an inverse relationship between technology and labor well-being. These groups appear to oppose technological advances because they believe they undermine working conditions, leaving people jobless and increasing social inequalities (assuming the postulate of technological unemployment, Keynes, 1930). However, it turns out that the relationship between technological advances (such as digital currencies) and workplace well-being (through increased compensation, but also through motivation, through gamification, and through a commitment to helping with CSR) is not proportionally inverse (dismantling the fallacy that the more machinery and programming there is, the less work there is for people), but rather exponentially convergent (the more technological advances there are, the more suitable work becomes for human beings, as they can dedicate themselves to exploiting their personal talents).

The real paradox (or directly a discursive contradiction in the form of cognitive dissonance of an ideological nature) occurs with the double standard: local social currencies are beneficial if they are promoted by the public sector (because they are a small complement to national money), however, they become suspect (due to a lack of transparency - with accusations of money laundering, even of a pyramid scheme, ECB, 2020; European Parliament, 2022) if they are expressed in electronic or computer support and, even more so, if they are the result of private initiative, such as MDSE. However, the collaborative intelligence shared in international forums such as the Global Compact-UN or the Wellbeing Economics Alliance-WEF prove the opposite: unlike the state welfare economy, which is based on the redistribution of scarcity, the digital economy is based on the constant and diverse generation of abundance, thanks to creativity, talent and entrepreneurship (Sánchez-Bayón and García-Ramos, 2021; Sánchez-Bayón and Trincado, 2021).

It turns out that regarding the use of social currencies by local entities or local currencies (Cortés, 2008; Corrons, 2017), when promoted by the public sector and with the support of the third sector (as is the case of the Bristol Pound in Bristol, SoNantes in Nantes or the most recent, in 2018, Citizen Economic Resource-REC in Barcelona), it is considered an example of a social and solidarity economy - even money with values (Corrons, 2017) -, despite the fact that companies are conditioned - via political and fiscal coercion - to participate in its operation - in addition to subsuming its issuance under the monopoly of the public sector, since it is still a sub-variant of fiat currency. However, the appreciation of the currency varies (becoming speculative rather than supportive) if it is an initiative of the companies themselves (which would escape the fiat trap and could ensure a store of value). In Spain, since the Rumasa case of 1983, companies have been prevented from having their own banks, which facilitated their own financing and helped them escape the fiat trap. In contrast to this prejudice, one of the most successful examples to date is the case of Wir (an abbreviation for *Wirtschaftsring*, meaning economic circle), the currency of the Wir cooperative bank in Switzerland (established since 1934, based on the principles of free money proposed by economist Gesell). This system has helped finance nearly 100,000 Swiss SMEs (reaching a cumulative transaction value of nearly €1.5 trillion), proving particularly useful during periods of crisis (when liquidity has been lacking, as in the stock market crash that led to the Great Recession of 2008). Well, returning to so-called social currencies, they had already begun their rise and electronic leap in the 2000s (not as digital currency, but as a digital means of payment for fiat currency), with cases such as the French Sol-Violette or the German Chiemgauer

(each present in multiple municipalities, with more than 500 participating companies and operations worth several million euros annually). In Spain, after the 2008 crisis, there have been cases of social currencies that are now solely electronic (via mobile app), such as the Real de Vila Real in the Valencian Community. However, there is growing reluctance to convert social currencies to electronic form and their use in the digital economy (as was the case with the Mexican Túmin, created by professors Castro and López of the Intercultural University of Veracruz, who were charged with violating the peso and promoting illegal currency). However, any example of local social currency is still an expression of the fiat monetae model, due to its value depending on the official seal, its lack of collateral, regressive value and/or free subjective appreciation, in addition to its risk of issuing expansion (losing its function as a store of value).

In short, as leading companies in digital transformation and in the implementation of the talent model and the happiness economy (such as those ranked by GPTW) have been proving, the MDSE resource has the benefit of CSR 3.0 practices (helping companies, employees, communities and the environment), but it has many more possibilities, only that they will take time to become evident until the recession resulting from the great monetary expansion and fiscal repression applied as a state solution to the COVID-19 crisis, the war in Ukraine (and the energy and defense crises), etc. (Alonso et al., 2024; Domenech et al., 2024; Sánchez-Bayón et al., 2024a and 2025).

Finally, keep in mind that in the last half-century alone (before the end of the Great Moderation), there have been nearly 150 banking crashes, more than 200 currency crashes, and 75 sovereign debt crises (demonstrating the failure of the MMT premise regarding the impossibility of a sovereign currency failing). This means that a global average of one failure of the traditional monetary system (of a national currency) occurs every month and a half (with the timescales shortening during this period of depression that has begun). If we add to this the worsening of the debt crisis at the beginning of the 2019 recession and the post-COVID-19 depression, it becomes clear that alternative instruments are needed to facilitate corporate financing (introducing new fluidity), employee compensation (including, if necessary, hiring them via alternative invoicing), etc. In short, MDSE's balance sheet seems quite positive, considering that it is something incipient and whose possibilities will begin to emerge when the cycle change (of economic depression) occurs, given the sovereign debt crisis expected after the injections with the COVID-19 crisis (as already happened with blockchain and Bitcoin after the stock market crisis or Great Recession of 2008).

In this way, this study hopes to have provided the necessary keys to show how to promote critical-creative learning in students, allowing them to rethink money and its relationship with personal well-being, CSR, etc. In this way, MDSE can be used to finance all of this without increasing costs (being digital, its marginal cost tends to zero), and it does increase agent satisfaction, in addition to allowing an escape from the fiat monetae trap, which has been consolidated since 1971 (when the gold standard was broken and its public monopoly was imposed with sign instruments, with currency ceasing to be an asset and becoming debt and a promise of compensation with future taxes - by assuming the theoretical deviation from MMT that money is only currency issued by the State, instead of being considered an evolutionary social institution, as Menger and Hayek suggest, see Table 4). Future lines of research are expected to offer further advances in teaching innovation and creative learning related to the cycles of wealth and well-being in the digital economy, supported by empirical illustrations that foster dialogue with other economic and business schools, in addition to delving deeper into the positive evidence from TANEID.

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