



## Homeostatic regulation of money

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### Climate change and the homeostatic regulation of money

#### The impossibility of financing the SDGs – François Rossier

Climate change has become a reality but the way to prepare for it and the means to finance the ecological transition are still in their infancy, both in terms of instruments and methods. Although estimates differ, the amounts needed are in the trillions of US dollars per year and according to the SDG Knowledge Hub<sup>1</sup>, there would be a shortfall of 4,200 billion US dollars per year until 2030 to achieve the SDGs<sup>2</sup>. The Global Impact Investing Network (GIIN) estimates in 2019 that around 1,340 organizations manage USD 502 billion in impact investment assets worldwide, but this is an outstanding amount, not a flow<sup>3</sup>.

New financial tools and vehicles (blended finance), combining public subsidies, bank loans at concessional and commercial rates, make it possible to finance innovative impact projects with a suboptimal<sup>4</sup> return but the average amount disbursed per project remains very high (~USD 150m), limiting the number of eligible projects<sup>5</sup>. The growth of blended finance is also constrained by necessary adaptations of the regulatory framework to facilitate risk-taking by players such as pension funds and life insurance companies which to date are not authorized to finance such projects.

The market approach is favored because to achieve such financing volumes, credit must necessarily be used. But the return on investment being diffuse, temporally and spatially, bankable projects are rare, leaving many needs out of reach.

Added to this massive mobilization of financial resources is the need to preserve social peace, because the end of the month always appears more immediate than the end of the world.

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<sup>1</sup> SDG Knowledge Hub ([link](#)).

<sup>2</sup> The amount varies between 2,500 billion and 4,200 billion. The United Nations estimates it at 4,000 billion ([link](#)).

<sup>3</sup> GIIN, Sizing the Impact Investing Market ([link](#)).

<sup>4</sup> The combination of subsidies and credits at concessional rates makes it possible to structure commercially viable investments.

<sup>5</sup> Convergence, State of Blended Finance 2024, 93 pages, ([link](#)). USD 15 billion investment in 2023

**As the ultimate issuer of the currency, only the Central Bank can “issue” the necessary financing, the market approach having shown its limits. While ensuring price stability, guarantor of social peace, the Central Bank, with the support of the digitalization of transactions and AI, can develop a new model allowing cash to be injected and withdrawn according to environmental and social priorities.**

### **At the origin of money**

Many human communities adopted a currency at a time when there was no central bank or double-entry accounting. The first currencies are reported in Mesopotamia in the Akkad empire (2300 BC) <sup>6</sup>.

In any community, humans are born, give birth and die. They receive, give and return life. The gift, at the origin of life, gives way to relationships of debt which are transmitted from parents to children and are at the principle of social reproduction.

These life debts are transmitted between generations and the maintenance of the community's “life capital” is ensured, throughout life cycles, by a set of real and symbolic transactions. In traditional societies this “life capital” cannot be undermined or threatened without feeling the need to restore it. Any attack on this life capital calls for action in return, like a compensation procedure.

Sacrifice is the act allowing humans to return this initial gift received from the gods. The slicing of human or animal victims offered and the addition of donations to the divinities segment the wealth into convertible units which, from substitution to substitution, will become currency.

The existence of money in the most different societies allows us to assume that it is a major cultural invariant, a homeostatic requirement necessary to reestablish an always fragile balance.

Before being a means of exchange, money was historically a means of payment implemented in an eminently religious context. Exchanges with the gods serving as a model for exchanges between men. According to Benveniste, the term “sell” comes from the Gothic “saljan” which does not mean “to sell” but “to deliver as a sacrifice to a divinity”. Similarly, “buy” is a derivative of the Gothic “bugjan” whose etymological meaning is “to free, redeem someone to save them from a servile condition”<sup>7</sup>.

**Money is the medium that gives a measurable and quantified form to this set of social relations constituting society. Through its mediation, social interdependencies which take the form of reciprocal obligations and rights between its members are translated into terms of debts and claims**<sup>8</sup>.

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<sup>6</sup> Wikipedia ([lien](#)) & ([lien](#))

<sup>7</sup> Emile Benveniste, Dictionary of Indo-european concepts and society, Hau Books, 2016, page 129 ([lien](#)).

<sup>8</sup> Bruno Théret, *Monnaie et dettes de vie*, 2009, revue L'homme, ([lien](#)).

Gradually, money spreads throughout the community and offers a compensation when a good moves from one hand to another. With money, complex economic relationships can emerge. It is not because it can be used for exchange that it has value, but it is because it is an incarnation of the social community that it has an exchange value. Money is therefore indeed a representation of the social totality which returns to each of its members what it judges he has given to it<sup>9</sup>.

### **Trust in the State as a counterpart**

When the power of protection<sup>10</sup> is concentrated in a central institution like the State, the life debt becomes a social debt, a financial expression of the sustainability of the community. Currency is an integral part of the political system and is established by the State. Thanks to the confidence it inspires, the State can make monetary reforms as long as the rate set by the law is accepted by the citizens and it is the political solidity of the State which is recognized behind adherence to the monetary rule. The study of wealth (chrematistics) posits that the accumulation of money in private treasures destroys the common good..

In ancient times, the hallmarks on gold coins indicated where the piece of metal came from and who it belonged to to prevent counterfeiting of the currency. The seal has its origins in totemic conceptions and the one who wears the totemic sign is in magical communion with the community, the sign being proof of one's membership in the clan. The seal is a sign of ownership and indicates that the piece of metal belongs to the god, that it is sacred. In addition, to be sure to recover the metal (gold, silver) melted in the coin, in other words to preserve the god's property, his effigy was engraved on it. The seal, sign of ownership, sacred symbol, establishes the credit granted to the currency.

The decoupling between the monetary value and the weight value of the metal is at the origin of monetary reforms which allow the State to modify the value of the means of payment in circulation. The State can modify the weight and fineness of the metal contained in a coin while maintaining its nominal value. The first monetary reform was that of Hippias in Athens in 527 BC. To increase the resources of the city at war against the Persian Empire, he withdrew all legal tender, minted a new currency and put the new coins into circulation<sup>11</sup>.

### **Public and private sectors, the two sides of the same coin**

The endless struggle between the public and private sectors is akin to a game of tug of war where each team seeks to shift the center of gravity of the system in its favor and if one loses, the other wins. This representation blocks the system and prevents the emergence of consensual and negotiated solutions.

The first taxes were levied on grain harvests in Mesopotamia 2,500 years ago<sup>12</sup>. This transfer from the private sector to the public sector made it possible to consolidate the nascent State and secure the countryside. In the case of taxes paid by public sector employees, they return to the same account from which their salaries were paid from. There is therefore no transfer, public salaries representing a net outflow of cash.

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<sup>9</sup> Bruno Th  ret, **Monnaie et dettes de vie**, 2009, revue L'homme, ([lien](#)).

<sup>10</sup> Money as life-capital.

<sup>11</sup> Michel Aglietta, Pepita Ould Ahmed & Jean-Fran  ois Ponsot, **La monnaie, entre dettes et souverain  t  **, Odile Jacob   conomie, 2016, ([lien](#)).

<sup>12</sup> James C. Scott, **Against the Grain: A Deep History of the Earliest States**, Yale University Press, 2017, 312 pages ([lien](#)).

Adaptation to climate change will, nolens volens, involve a significant reduction in economic activities by removing superfluous<sup>13</sup> and/or destructive economic activity. This, in return, will significantly reduce the volume of tax revenue collected. Therefore, to preserve monetary and social stability, the Central Bank has to adjust its means of intervention.

### Homeostatic regulation by the Central Bank

To the primary mission of the Central Bank, which consists of controlling inflation, we propose to add a second mission consisting of financing the ecological transition and social peace.

The Central Bank will thus be able to directly inject the necessary resources via the digitalization of payments (eBanking, smartphone, etc.). The targets and necessary volumes will be determined in real time with the help of AI, regardless of the amount of payments required. Indeed, certain activities, bringing added value to the community, are not “accountable”<sup>14</sup>.

Conversely, to avoid the overheating of the system (inflation), the Central Bank could “withdraw” liquidity using a micro-tax (0.1%) on these same electronic transactions. AI will make it possible to adjust the micro-tax levy rate cyclically, geographically or by professional sector. The micro-tax alone can replace all taxes and the revenue collected will be able to finance the public sector, the social security and the ecological transition<sup>15</sup>.

The “autonomous” governance of the Central Bank will be replaced by a democratic governance, where all stakeholders will be represented, in order to maintain the balance between “injection” and “withdrawal” of cash in the economy. A 60% majority will strengthen its legitimacy. With AI and democratic governance to be defined, the Central Bank will be able to play the role of a homeostatic<sup>16</sup> regulator of monetary circulation within the community.

**Currency contributes to the cohesion of the community, but if its circulation is hampered or concentrated in a smaller number of people, the community can tear itself apart. And if the planet becomes unlivable, then the value of currency will become very relative.**

### Sources

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<sup>13</sup> Example of superfluity, the millions of “goodies” distributed during the Tour de France.

<sup>14</sup> Ex. Grandparents who look after their grandchildren or an association of volunteers cleaning a river. They bring added value to the community but it is difficult to account for it.

<sup>15</sup> <https://marcchesney.com>

<sup>16</sup> Larousse: (a) Regulatory process by which the body maintains the various constants of the internal environment (all body's liquids) within the limits of normal values. (b) Characteristic of an ecosystem that resists changes (disturbances) and maintains a state of equilibrium ([link](#)).