THE CLUB OF ROME

November 2023

From financing change to changing finance

Tom Jess, Peter Blom and Sandrine Dixson-Declève

Tom Jess is program manager of the Rethinking Finance Impact Hub at The Club of Rome

Peter Blom is an Executive Committee member of the Club of Rome, former CEO of Triodos Bank and co-founder and co-chair of the Sustainable Finance Lab

Sandrine Dixson-Declève is co-president of The Club of Rome.

The authors are grateful to a number of individuals for their input to this paper. Contributors and reviewers include: Linda van Goor, James Vaccaro, and Club of Rome members; John Fullerton, Hunter Lovins, Mariana Bozesan, Stefan Brunnhuber, Mamphela Ramphele, Carlos Àlvarez Pereira and Anne Snick. Thanks also to Till Kellerhoff, Rens van Tilburg and Dirk Schoenmaker.

"We need to redesign our financial system in order to be able to take into account vulnerability and not only GDP"

— UN SECRETARY-GENERAL ANTONIO GUTERRES —

Photo by Pixabay

System change for finance

The transformation of our economy to meet the needs of human wellbeing within planetary boundaries requires a supportive and regenerative financial system with a focus on long-term value creation. In recent history, the financial system has developed into a practice of optimisation and the creation of financial value at the expense of people and planet. In essence today's financial system extracts value from natural, human and social capital while increasing the gap between rich and poor. This has significantly impacted the interaction between the financial and economic systems –shifting from 'finance supporting the economy' to 'the economy supporting finance'. As a result, an overly financialised economic system has developed that is now more part of the problem instead of actually contributing to improving human wellbeing within planetary boundaries.

The current relationship between finance and the economy is having a negative impact because finance demands high financial returns in the short term instead of acknowledging that long-term value creation for all stakeholders is needed to respond to the current planetary and human emergencies as well as abate future crises.

This paper sets out why is it important to go deeper into the systemic dysfunctionality of our current financial system and shift from today's predominant doctrine of 'financing change' towards a 'change finance' agenda and why this is a crucial building block from a system change perspective. 'Change finance' is not the outcome of a new economy but the very prerequisite of changing the way we want to meet the needs of humans on a finite planet.

In this paper it is considered that:

1. the current financial system is a major hindrance in phasing out the old economy, and;
2. a new financial paradigm is critically important in enabling a new economy that is fair and just, enhances prosperity and will operate within the planetary boundaries.

The authors draw on key analysis and state of the art research which recognise the need to fundamentally transform the financial system instead of tweaking the current system. We set out core principles for a regenerative financial system and introduce a systems framework to demonstrate four levels of potential in changing systems and realigning the financial system in support of a regenerative economy. We conclude by setting out the main barriers to "changing finance" and outline six questions for future deep-dive analysis and for collaboration with partners.

Photo by Denys Nevoshai on Unsplash

Shifting from ‘financing change’ to ‘change finance’

Fifty years ago, the authors of *The Limits to Growth* the seminal Report to The Club of Rome in 1972, concluded that if humanity kept pursuing material growth and exponential consumption without considering finite natural resources or environmental costs, global society would overshoot Earth’s physical limits and experience sharp declines in available food and standards of living, with an ensuing decline in the human population within the first half of the 21st century. Fifty years on, the Earth4All initiative convened by The Club of Rome with partners, has brought together scientists, economists and thought leaders to explore the collective future of humanity this century. The book *Earth for All: A Survival Guide for Humanity* (also a Report to The Club of Rome) has acknowledged that ‘Civilisation is at a unique moment, a juncture’ which the authors define as a planetary emergency, requiring five extraordinary turnarounds within the coming decades and a systemic shift away from an extractive economy to an economy in service of people, planet, and prosperity.

The underlying and reinforcing dynamic of economic growth at all costs has catalysed an overly financialised economic system, thus fostering an economy in support of the financial system rather than the reverse. This shift has contributed to lock-in to an unsustainable regime, focusing on maximising financial value creation instead of the optimisation of serving people’s needs that is not at the expense of extracting value from natural capital and social capital. Figure 1 demonstrates the growth of total financial assets in the Euro area from 1999 to 2021 – a growth rate over double the growth of GDP in the same period[1]. Since the global financial crisis in 2008, the overall growth in financial assets can almost entirely be traced to non-bank entities which by now represent more than half of the total financial asset holdings in the euro area[2].

The goal of the financial system over time has become the creation of mainly shareholder value, the practices geared towards transactions and trading on capital markets rather than relationships with clients and the real economy. These trends have led to an endogenous growth of the financial system shifting beyond its original function of financing governments, businesses, and households, based on long-term relations of trust and shared risks and opportunities[3]. The short-term focus of the financial system, the increasing disconnect with the economy and -even more disruptive- the lack of responsibility in fulfilling their role beyond serving the need of shareholders, makes financial institutions the very root cause of a lack of change. And not only that. The process of financialisation of almost everything has led to increased volatility and instability and to rising wealth inequality in most economies incurring significant human anxieties.

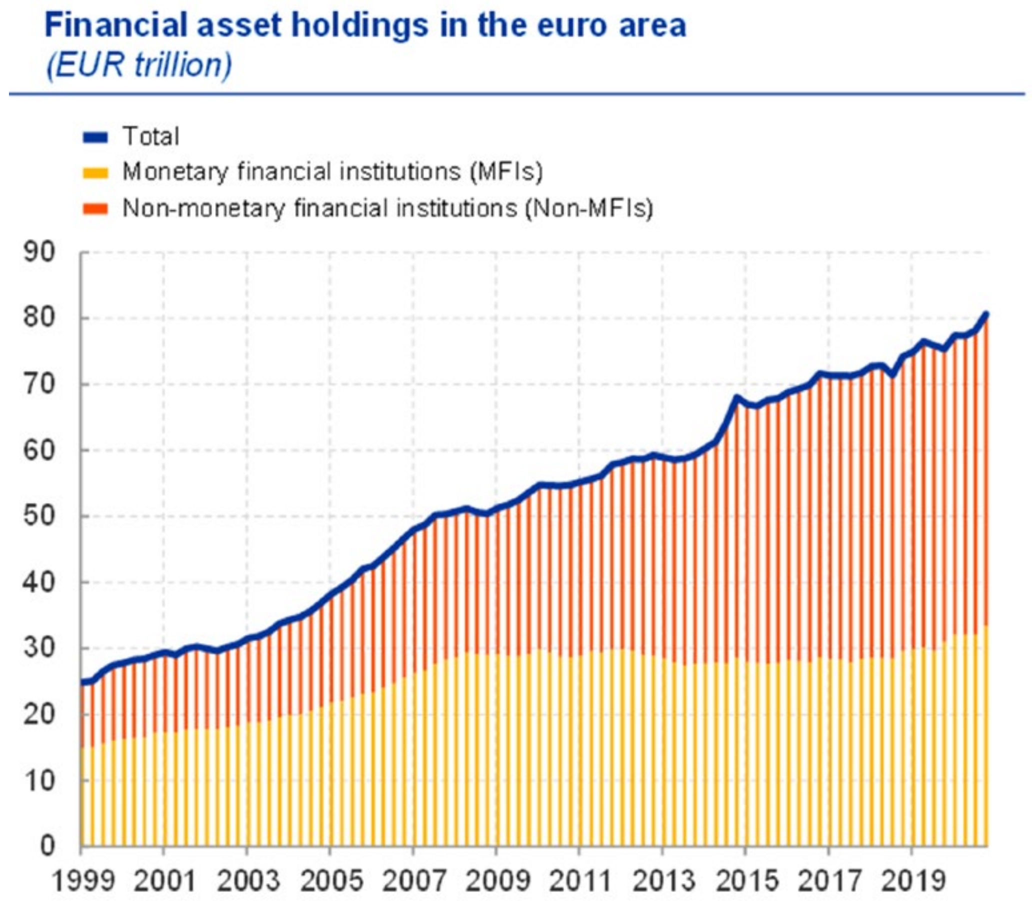

Figure 1 – Evolution of bank and non-bank finance (financial asset holdings in the euro area – EUR trillion, ECB 2021.

In our view, the above diagnosis requires more than tweaking the current system. The ‘sustainable finance’ or ‘green finance’ policy agendas should be aiming for transforming the system itself. To date, policy reform has predominantly sought to mobilise capital to invest in an economy that is less harmful for people and planet within the existing system. And while financing sustainable sectoral transitions, such as those in energy and food, are important, the speed and scale of these transitions are nowhere near the required shift to meet decarbonisation goals and even less sufficient to meet inequality and human needs, like healthy food. Box 1 expands further on this analysis of today’s sustainable finance agenda. An over-arching, collective strategy and financial regime that mobilises transformative and innovative power of people and business that is needed for enduring change is missing. That is why we are convinced that a shift from a ‘finance change’ to a ‘change finance’ approach that is anchored in changing the paradigm of the financial system, is needed alongside initiatives that finance the change necessary in the short term. Box 2 outlines some examples of this depiction between ‘finance change’ and ‘change finance’ approaches.

To be able to ‘fix’ the financial system, we should consider – what is finance for? Is the true value of the financial sector to the community not the services it provides? To facilitate a healthy intermediation of value within the real economy between people and enterprises, reinforcing trust and encouraging creativity and add value that benefits all stakeholders? A healthy financial system serves society with the key functions: payments, pooling funds and allocating loans and investments, risk transformation and reducing information asymmetry. These functions directly contribute to society and are intrinsically linked to activities within the economy – the real economy - the production, consumption, and distribution of goods and services to fulfil the needs of those living and operating within the economy. As highlighted in *Earth for All: A Survival Guide for Humanity*, today's economy requires five extraordinary turnarounds within the coming decades to transform the 21st-century economic system to become more just and sustainable. These turnarounds on energy, food, empowerment, inequality and poverty will only happen with a financial system that is designed to support people and the economy by providing the tools that are effective and embedded in a governance that is holistic and multi-stakeholder oriented. In the Doughnut Economic Model by Raworth (2017), the shift from an extractive financial system to a supportive financial system entails a holistic economic and financial system dynamic that is mutually supportive and places a value on social and environmental capital equally.

Approach to 'change finance'

Shifting from an extractive to a supportive financial system requires a different outlook and approach.

The Club of Rome sets out three core (or guiding) principles for a regenerative financial system: one that is designed to finance true social and environmental value and fully aligned with the living principles that determine a healthy, fair, and fulfilling life.

Core principles for a regenerative financial system

A regenerative financial system must:

1. **Be directed by a purpose** and accountable to the principle of supporting the economy in meeting the needs of people, society and the planet;

2. **Favour integrated value** over purely financial value as a whole-system goal, and in policies, practices, reporting and regulation;

3. **Require institutions to become active agents** in a coherent and collaborative strategy centred on long-term value creation, embedded in a stakeholder-oriented governance.

These three Club of Rome core principles act as a guide to stress test the design of financial system change strategies and interventions.

Yet a different outlook alone will be insufficient. The approach to 'changing finance' will be as important.

As outlined in our diagnosis above, policy should be aiming for transforming the financial system itself. In Figure 3, we present a model (developed by Birney in 2021) that deals with four levels of potential in changing systems. Each level draws and evolves on Donella Meadows' (1999) seminal work "Leverage points". As stated by Birney this model "offers a framework for understanding where to look for potential, how that relates to strategy design and the indicators to follow to know a system is changing".

For shifting to a regenerative financial system, the framework is a tool to help cultivate more effective and powerful areas of intervention and avoid falling into the trap of attempting to make improvements to the existing system which are fundamentally unable to change course. It is important to recognise that intervening at one level is insufficient, and a holistic approach is necessary to realign the financial system to support a regenerative economy.

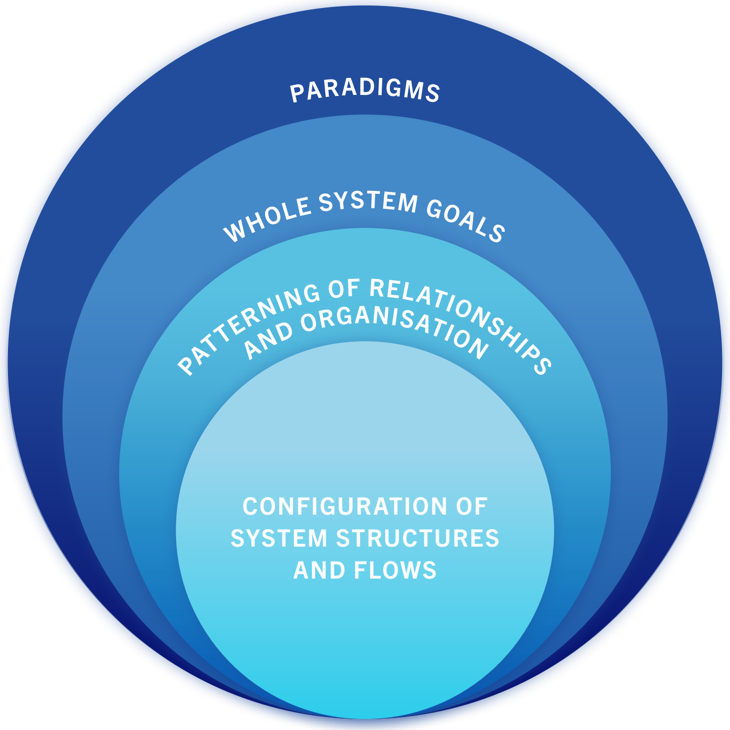

Figure 2 - Nested patterns of systems that indicate levels of potential in changing systems represent the other levels – whole system goals; patterns of relationships and organisation; and configuration of system structures and flows –all nested within each other, interact, and mutually reinforcing. – Birney 2021.

Barriers and areas for exploration

We conclude this work by setting out the main barriers to 'changing finance' and outline six questions for future deep-dive analysis . Guided by the three core principles for a regenerative financial system and the framework for systems change, we outline the main barriers or design flaws of the current financial system that prevent it serving the transformation of the economy. For each point, we refer to key analyses documented in the literature.

The barriers outlined below focus predominantly, apart from number four and number six , on the beliefs, values and assumptions which currently shape the financial system. They are the dominant paradigms of the existing system. These paradigms are the most difficult areas to change yet must be changed if we are to have a financial system that is regenerative. We also note that these paradigms are one level of potential to change the systems, yet as Birney states "intervening at the level of paradigm you will be affecting changes in all the other levels".

This paper's aim is to start to put forward the key questions to explore transforming the financial system from a system perspective. We have added to each 'barrier' a question for future deep-dive analysis (not limited and to be discussed with partners) to develop concrete recommendations for changes and measures. Each area for exploration is for collaboration with partners in the field, including think tanks, universities, practitioners (e.g. banks, pensions funds and regulators) and government bodies. To design system change strategies and interventions that can be taken today, we favour a back-casting methodology and utilisation of system dynamic modelling, while avoiding recommending measures that can be justified in isolation but not from a holistic system perspective.

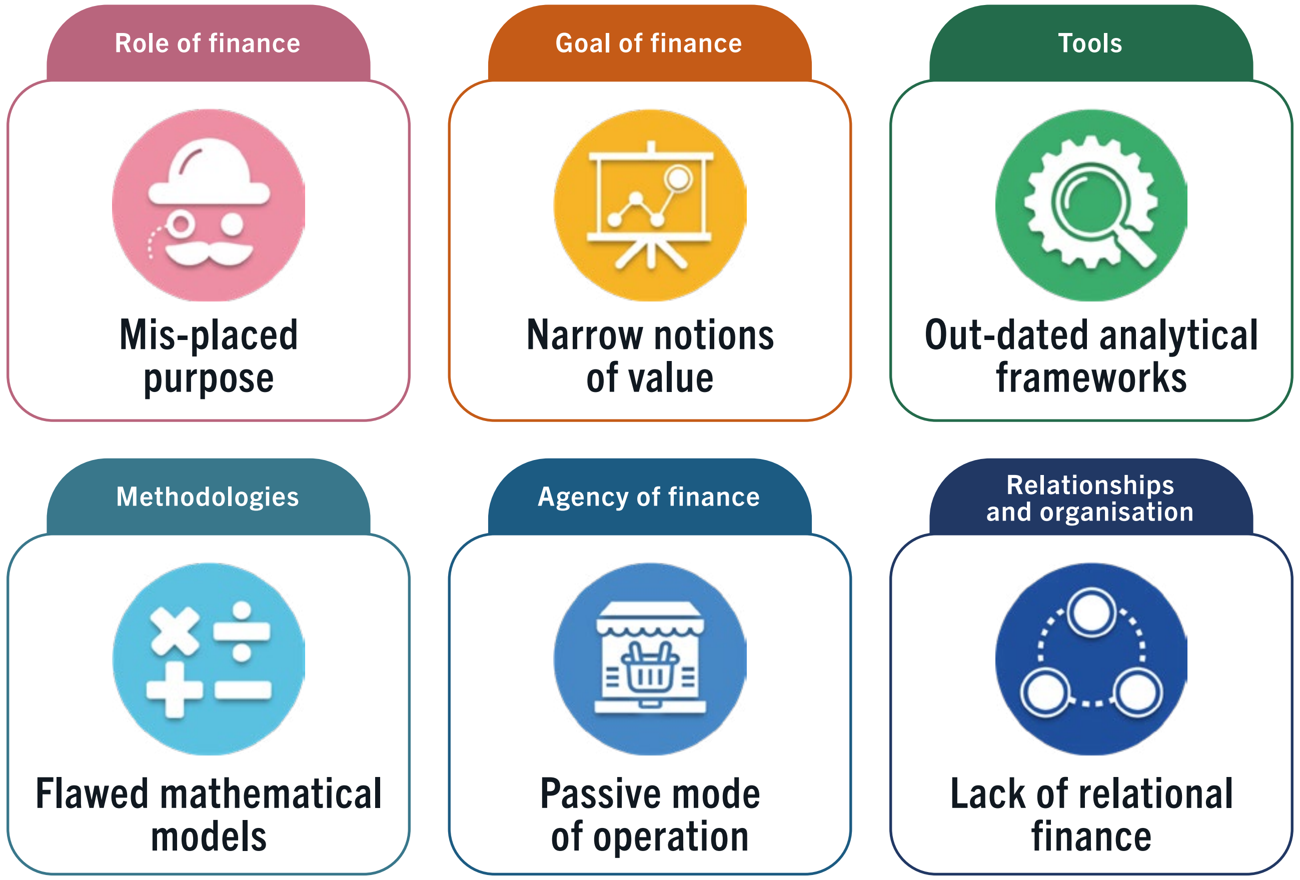

Figure 3 – Main barriers to changing finance – The Club of Rome Rethinking Finance Impact Hub

This analysis is not intended to be exhaustive, yet it highlights the critical barriers and blind spots that must be addressed and raises key questions for further deep-dives.

1. Mis-placed purpose

The neoliberal economic paradigm has falsely elevated finance to a "special" status. John Kay (2015), outlines that through financialisation, "the notion that finance was special became uncontroversial and the inability of many intelligent people outside finance to understand quite what financiers did only reinforced that perception". He challenges us to view finance as just another business and, with it invites us to reassess the purpose of finance. He states that "the industry mostly trades with itself, talks to itself and judges itself by reference to performance criteria that it has itself generated". As mentioned above, the true value of the finance sector to the community is the value of the services it provides. The community values financial services to the degree it facilitates a healthy intermediation of value within the real economy between people and enterprises, reinforcing trust and encouraging creativity and added value that benefits all. The financial system's purpose should be to support the economy in meeting the needs of people, society, and the planet. The emergence of concept of double materiality, an extension of the key accounting concept of materiality of financial information, is a positive development in recognising the impact of a company on sustainability.

Question for deep-dive analysis: How to reconnect finance with people, local communities, and SME's in developing a diverse financial landscape instead of growing 'one size fits all' global financial industries that are more focussed on trading rather than long-term relations with customers and the needs of people and the economy to become more sustainable and just. How to translate the concept of 'double materiality' (now enshrined in EU-law) into business strategies and regulation.

2. Narrow notion of value

A central paradigm of today's finance industry is that something has only 'value' if it can be measured in monetary terms and captured through transactions. It is fundamental in our thinking about markets as the central place to determine value. Today's financial sector operates mainly assuming that the best way to serve clients and beneficiaries' interests is to maximise financial returns, irrespective of the non-financial outcomes generated. This flawed thinking is summarised well by John Fullerton (2019) when he notes that "the system design is based on a false ideology, which at its core confuses means with ends". Loorbach, Schoenmaker and Schramade (2020) state that we should transition to a financial system that manages financial, social, and environmental value in an integrated way. They show that "the goal function of the financial system becomes integrated value. The financial system becomes forward-looking and impact-driven where the strength of the financial system is used to help create value." Two examples of concepts stemming from the current flawed notion of value are "shareholder value" and "risk-adjusted financial return". Shifting the financial system's perception of value is essential to transform the system: concepts adopted should evolve to incorporate integrated value and this should be mirrored by an expansion of the mandates of financial regulators and a complete overhaul of the current system of accounts to properly place a value on natural capital and social capital.

Question for deep-dive analysis: How should integrated value creation become part of the business model and strategy of each financial institution on which they report and how can it become an instrument for regulators to makes financial institutions aligned with their purpose and societal role?

3. Out-dated analytical frameworks

The current financial system is dominated by outdated worldviews conceptualising issues like the green transition as a static efficiency optimisation problem rather than a "wicked problem". Hofstetter (2020) states that reductionist, atomistic, and mechanistic approaches to problems lead to finance practitioners becoming "fixated on single projects and securities" and relying on "probabilistic models to forecast the performance of financial assets". Yet, scientific research teaches us that human civilisation (and economies and markets in particular) behaves instead as a complex system - a dynamic network of interactions and system behaviour that may not be predictable according to the behaviour of the components. Chenet, Ryan-Collins and van Lerven (2019) set out that conventional market-based solutions are misguided as complex environmental challenges are characterised by radical uncertainty where 'efficient' price discovery is not possible. The oversimplification of the challenges in front of us are especially dangerous with the growing acknowledgement that climate change may give rise to potentially catastrophic financial risk and impact financial stability[5]. Hofstetter (2020) concludes that these distinctions matter because "operating in complexity requires different mindsets, approaches, and tools than those prevalent in the financial sector today". The dominant worldviews and analytical frameworks in the financial system require a more holistic approach, utilising our understanding of systems thinking. As an example, Roberts and Elkington (2020) set out that investment strategies should be designed with the goal of systems change in mind. They state that this would require "new analysis tools – such as a 'system positive' lens for assessing companies and new approaches to portfolio construction designed to optimise combinatorial effects that deliver directional impact". The impact of incorporating reimagined worldviews based on systems science would be truly significant. Waygood (2021) states that changes are already required across a range of frontiers within finance based on the perspective of systems science and that "the international financial architecture overseeing the allocation of capital is no exception".

Question for deep-dive analysis: What new approaches will move financial institutions to deliver 'Impact' in addition to 'Risk and Return'? How can they develop a more advanced, future-orientated lens of assessing propositions and addressing more radically the uncertainty factor?

4. Flawed mathematical models

Another dominant paradigm within traditional financial orthodoxy and one that is hindering the transition of the financial system is the way in which mathematics is applied and mathematical models are used. Economists such as Keen (1995) and Sedlacek (2011) have challenged the dominance of mathematics, and particularly equilibrium models, which are often used as a basis for decision making in finance. Hofstetter (2020) says "it is tempting to view these models as truisms. But doing so would neglect that they are, in fact, expressions of a range of beliefs about what is valuable, how that value is best managed, and how it materialises in markets". Two models which are greatly criticised, yet remain central to financial decision-making, are the Discounted Cash Flow (DCF) method and the models coming from Modern Portfolio Theory[6]. Even the sector itself has challenged these models. In a 2021 report titled "Cleaning Up – Transforming finance for a net-zero world", Aviva Investors stated that "while large asset owners like sovereign wealth funds should theoretically have the longest time horizons – potentially even investing on behalf of future generations – in practice they tend to invest no differently from smaller institutional investors or even hedge funds. This is largely due to the ubiquity of modern portfolio theory and discounted cashflow (DCF) in portfolio design and management". The application and use of these mathematical models, which don't reflect absolute truths but a set of norms and values, compound short-termism in the financial systems and add to the disconnect between finance and the real economy.

Question for deep-dive analysis: How can we learn from advanced methodologies of developing mathematical models, such as system dynamic modelling, in using 'common sense' and 'expertise judgment' as a sanity check? And how adding social and environmental flows to the models to make them more future proof and therefor fit in assessing the risk of tomorrow in a much holistic way.

5. Passive agency of finance

The role that financial capital plays in driving a system, for example the sustainability transition of a system, is often considered as a secondary impact of finance. A prevalent view is that finance and financial capital is a passive entity which follow the principles of the market and policymakers have the role to address market failures such as climate change. There are two reasons why this set of beliefs is damaging. First, Fullerton refers to the framing that markets solve all problems best yet require government intervention in certain circumstances to achieve fair and optimal outcomes as "a false choice". He sets out that sometimes "markets are simply the wrong tool, no matter how well designed" and "we must not confuse the need for better markets with the need for a different, more appropriate tool, using an overarching ethical lens to guide our political economy in the selection of tools to address critical tasks". There are limits to what we can expect from markets in addressing our most pressing challenges. Second, Hofstetter (2020) notes that in the belief that finance is passive, financiers "adopt a reactive mode of operation, feeling little responsibility for (and influence over) the general course of the world." He states that financiers fall back on the current notions of value, emerging in monetary terms based on relative risk/return ratios, and "assign themselves the role of system optimisers whose job is to exploit profit opportunities within the boundaries of the investable universe". Vaccaro and Barnes (2021) call out the view that the financial system is 'neutral' and 'efficient', so has no driving effect on the economy, as "a dominant myth in finance" and one that "undermines the case for proactive and precautionary regulation". Once the reality of finance's agency and responsibility in actively shifting and shaping a system is accepted, then the role of markets, the power of public finance and the opportunity for individual financiers can be put to best use to allocate capital for long-term societal value. A coherent and collaborative strategy can be built centred on the role of finance in driving the sustainability transition of a system – one based on completely different financial logics of a circular, non-extractive and service and sharing-based economy.

Question for deep-dive analysis: What is the appropriate governance for a financial institution to operate as an entity that serves public and private interests? Flexible and entrepreneurial when it comes to understanding business dynamics but with a public responsibility when it comes to long-term value creation for people and planet. And how to deal with the risk of shareholders receiving the profits and government to absorb the losses to avoid a system crisis?

Photo by S Jann on Unsplash

6. Lack of relational finance and stewardship

The financial sector itself has adopted a set of practices and structures which stem from conformity to the dominant paradigms list above, particularly those of a mis-placed purpose (point 1) and current notions of value (point 2). One set of practices which makes the financial system ill-equipped to catalyse systems transformation are linked to the concept of stewardship. Roberts and Elkington (2020) state that "today's financial system is, in effect, a model of 'capitalism without capitalists'", referring to 2017 article by Erixon and Weigel. They state that "those providing financial capital to businesses do not, for the most part, take real responsibility or exercise real control over the companies that they invest in". As Kay (2015) noted a shift from agency to trading and from relationships to transactions "is a central aspect of the financialisation of Western economies in the past four decades". Practices geared away from relationships are problematic for many reasons, not only, according to Kay (2015) that the focus on trading and transactions has been a tool to further optimise financial risk-return. Yet, in the context of the practices themselves, investors are not utilising their influence on corporate strategy as a tool to encourage the development of environmental or social strategies or to hold companies accountable for fulfilment of these strategies. Roberts and Elkington (2020) call for investors to "act as engaged owners of companies and enter into long-term partnerships with corporate Boards and C-Suites". Stewardship should be based on a direct and strong link between financiers and companies. Loorbach, Schoenmaker and Schramade (2020) state that "for banks, it will again include a stronger role for relationship banking. For asset managers and asset owners, it will likely include more concentrated ownership stakes, deeper engagement, and shorter investment chains". Bezemer et al. (2018) notes that it is important to recognise institutional shifts in the banking sector since the 1990s when developing policy responses, as there has been a decline in 'stakeholder-owned banks' (cooperatives, public savings banks) that practise 'relationship lending'. For Fullerton (2019), it doesn't stop with stewardship but also curtailing speculation: "Finance for a regenerative world means, first and foremost, the capital expenditure decisions in the real economy, not the financial investment decisions in the financial markets."

Question for deep-dive analysis: How can regulation and governance requirements safeguard the role of financial institutions as stewards to maximise overall long-term value including the value of common economic, social, and environmental assets? What (drastic) measures are needed to limit trading and transactions in financial markets and redirect them to the real economy?

Photo by Juan Gomez on Unsplash

Annex

BOX 1 Today's sustainable finance agenda in the context of 'finance change' and 'change finance'

In response to the Paris Agreement, governments and intra-governmental organisations launched a number of measures to promote sustainable finance. To date, these have focused either on voluntary measures, relying on businesses and investors to self-monitor in this area, or on government legislation and regulation primarily focused on mobilising capital or increase transparency. Regulators from the G20, United Nations and EU to as newly formed initiatives such as the Network for Greening the Financial System or International Platform on sustainable finance have taken steps on sustainable finance in the last five years. Each body setting out the direction of travel for financial institutions and investors to increasingly assess, monitor and disclose the sustainability of their investments. However, while these initiatives do make efforts to address the issues posed by climate change and other environment, social and governance challenges, we point out two huge deficiencies – relevant to 'financing change' and 'changing finance'.

First, while efforts have primarily focused on capital mobilisation (which we argue is only part of the sustainable finance agenda), the steps taken have triggered an insufficient volume of capital. Based on estimates from North American Retail Bank, RBC, sustainable finance has grown rapidly to nearly $450 billion annually, but by some estimates, it is only one-eighth of what's needed, and several barriers remain to scale it up to satisfactory levels. In addition, the annual Sustainable Development Goals (SDGs) financing gap was estimated to be $2.5 trillion pre-COVID-19, yet the gap just in low-income countries is set to further increase by $1.7 trillion due to the global economic uncertainty and the gap in COVID-19 emergency and response spending. It could be argued that the multiplication of sustainable finance initiatives, approaches and tools has created a fragmented landscape, which in fact hinders progress in mobilising sustainable financing for the SDGs. In this paper, we argue that initiatives, which fall under 'financing change', will always remain insufficient when in the scope of the goals of the existing financial system (and relations to the current economy). Nevertheless, **their contribution is crucial in proving that 'it can be done' in a realistic way.**

Second, the initiatives fail to address the inadequacies or malfunctions of the financial system as a whole in meeting the needs of human wellbeing within planetary boundaries. Today's financial industry operates largely on the assumption that the best—indeed only—way to serve clients' and beneficiaries' interests is to maximise financial returns, irrespective of the non-financial outcomes generated in the process. This short-term thinking which translates to investment cycles and ideas of economic value are acting to prevent the 1.5°C transition we need. This will require transformation and innovations in the financial system, where increased disclosure, labelling and climate risk management are the least effective tools in the toolbox. **We need short term levers for long term systems change**. Core to this paradigm shift is the recognition that sustainable finance cannot be achieved through the traditional lenses of financial risk and return alone: integration of environmental and social outcomes must be baked into the core purpose of finance and financial regulation.

BOX 2 Examples of 'finance change' and 'change finance'

The EU taxonomy – The EU taxonomy is a classification system, establishing a list of environmentally sustainable economic activities. According to the European Commission, "It plays an important role helping the EU scale up sustainable investment and implement the European green deal. The EU taxonomy provides companies, investors and policymakers with appropriate definitions for which economic activities can be considered environmentally sustainable. In this way, it creates security for investors, protects private investors from greenwashing, helps companies to become more climate-friendly, mitigates market fragmentation and helps shift investments where they are most needed." Under the 'financing change, changing finance' framework, the EU taxonomy falls under the scope of 'financing change' as it is a policy which serves the sustainability transitions of our economy within today's financial regime. It is noted however that **the EU taxonomy is a stepping stone towards policies which can change the underlying fundamental of finance by emphasising values beyond financial risk and return**.

Green quantitative easing (green QE) - According to the European Central Bank, green quantitative easing "refers to a change in the portfolio allocation of a given outstanding stock of private sector securities (bonds) held by the monetary authority, towards bonds issued by the green sector". In other words, it can be defined as a policy that tilts the central bank's balance sheet toward bonds issued by firms in "clean" or non-polluting sectors. Under the 'financing change, changing finance' framework, green QE falls under the scope of 'financing change' as it is a policy which serves the sustainability transitions of our economy through the asset purchasing programs of central banks, yet remains steeped in traditional finance orthodoxy and a narrow conception of value which is unlikely to 'change finance'. Nonetheless, **it has the potential to unlock a significant volume of capital for the sustainability transitions**.

Global Alliance of Banking on Values - Founded in the wake of the financial crisis in 2008, the Global Alliance for Banking on Values (GABV) is a global network of shareholder banks, cooperative banks, microfinance institutions, and development banks with a shared mission "to use finance to deliver sustainable economic, social and environmental development, with a focus on helping individuals fulfil their potential and build stronger communities." **GABV shows how banking can both serve the public interest and be profitable on a sustained basis at the same time**. Under the 'financing change, changing finance' framework, the GABV is what John Fullerton refers as a "green shoot" emerging within the financial system, of which is "the beginnings of pressures building that in aggregate will force systemic change within finance". Therefore, the GABV falls under the scope of 'changing finance' driven by mission and values, as outlined by the principles embedded in the culture of each bank part of the network, shown in Figure 5.

Systemic Investing - Another emerging alternative in the financial system is Systemic Investing. The definition from Transformation Capital is "a systemic investment approach for catalysing mission-driven sustainability transitions in the real economy". **Transformation Capital set out that this is "a radically new approach to investing with the explicit aim of systems transformation — one that deploys capital with a broader intent and mindset**; that is anchored in different methodologies, structures, capabilities, and decision-making frameworks; and that moves away from a project-by-project mentality to a strategic blending paradigm". As one example, Transformation Capital reimagines notions of value and how value is generated and captured; provides a methodology for how investors can make sense of a system and identify sensitive intervention points; redefines who participates in the investment process and how risks and rewards are shared; and reconceptualises the meaning and measurement of impact. This approach falls under the scope of 'changing finance' as an emerging alternative within the finance system.

Figure 5 – Example of 'change finance' in practice – the principles embedded in the culture of the GABV.

Footnotes

[1] The World Bank https://data.worldbank.org/

[2] It is noted that since the 1990s there has been a significant decline in the share of total bank credit flowing to non-financial firms relative to real estate and financial assets – Bezemer et al. 2018.

[3] For example, Bezemer et al. 2023 suggests that banking systems in industrialised economies have shifted away from their textbook role of providing working capital and investment funds to businesses. They have primarily lent against pre-existing assets, in particular domestic real estate assets. They explain that this 'debt shift' has important macroeconomic implications, as credit flows to non-financial business typically support private sector investment and innovation, and thereby wider productivity growth while macroeconomic instability is more likely to arise when the ratio of productive credit falls relative to more speculative and unproductive lending.

[4] See the below text – Flawed mathematical models represents a configuration of system structures and flows; Lack of relational finance and stewardship represents a pattern of relationships and organisation.

[5] Grunewald (2020) Climate Change as a Systemic Risk – Are Macroprudential Authorities up to the Task?

[6] Criticism is not limited to these models only. The use of Integrated Assessment Models, used to make projections about greenhouse gas emissions pathways based on economic processes, come with problematic assumptions which have been heavily criticized in the literature as unrealistic and oversimplifying – NGFS climate scenarios underestimate the impact of climate change - Sustainable Finance Lab

References

Aviva Investors (AIQ Editorial Team) Cleaning up: Transforming finance for a net-zero world

Bezemer, Ryan-Collins, van Lerven, and Zhang (2018). Credit where it's due: A historical, theoretical and empirical review of credit guidance policies in the 20th century. UCL Institute for Innovation and Public Purpose Working Paper Series (IIPP WP 2018-11).

Bezemer, Ryan-Collins, van Lerven, and Zhang (2023). Credit policy and the 'debt shift' in advanced economies, Socio-Economic Review, Volume 21, Issue 1, January 2023, Pages 437–478, https://doi.org/10.1093/ser/mwab041

Birney (2021) How do we know where there is potential to intervene and leverage impact in a changing system? The practitioners perspective | SpringerLink

Chenet, Ryan-Collins and van Lerven (2019) Climate-related financial policy in a world of radical uncertainty: Towards a precautionary approach

Erixon and Weigel (2017) Capitalism without capitalists

Fullerton (2019) Finance for a Regenerative World Act II

Grunewald (2020) Climate Change as a Systemic Risk – Are Macroprudential Authorities up to the Task?

Hofstetter (2020) Transformation-Capital-Systemic-Investing-for-Sustainability.pdf (climate-kic.org)

Kay (2015) Other People's Money: Far too much of a good thing - John Kay

Keen (1995) Finance and Economic Breakdown: Modeling Minsky's "Financial Instability Hypothesis"', Journal of Post Keynesian Economics, 17(4): 607-635

Kubiszweski et al. (2014) Development: Time to leave GDP behind

Langfield and Pagano (2016) Bank bias in Europe: effects on systemic risk and growth', Economic Policy, 31(85): 51-106.

Loorbach, Schoenmaker and Schramade (2020) Finance in Transition: Principles for a Positive Finance Future

Meadows (1999) Leverage Points: Places to Intervene in a System

Raworth (2017) Doughnut Economics: Seven Ways to Think Like a 21st Century Economist

Raworth and Guthier (2017) A Doughnut for the Anthropocene: humanity's compass in the 21st century

Roberts and Elkington (2020) Aligning-Finance-to-a-Net-Zero-Economy-2-fig1.pdf (volans.com)

Sedlacek (2011) Economics of Good and Evil: The Quest for Economic Meaning from Gilgamesh to Wall Street, Oxford University Press, Oxford.

Vacarro and Barnes (2021) Financial Stability in a Planetary Emergency

Waygood (2021) Harnessing the international financial architecture to deliver a smooth and just transition - Aviva Investors

Photo by Derek Sutton on Unsplash

The Club of Rome is a platform of diverse thought leaders. Drawing on the collective know-how of our members, the organisation provides holistic solutions to global issues such as climate, economics and the wellbeing of humanity. It promotes policy initiatives and action so that humanity can emerge from its self-inflicted planetary emergencies.

www.clubofrome.org

linkedin.com/company/clubofrome

twitter.com/clubofrome

facebook.com/clubofrome

youtube.com/clubofrome

This work is licensed under a Creative Commons Atrribution-NonCommercial 4.0 International License. For any commercial use please contact info@clubofrome.org.